

NEW YORK
BOTANICAL GARDEN.

THE

FLORIST, FRUITIST,

AND

GARDEN MISCELLANY.

1859.

LIBRARY
NEW YORK
BOTANICAL
GARDEN

LONDON :

“FLORIST” OFFICE, 28, HENRIETTA STREET,
COVENT GARDEN.

XF
L675
1859

INDEX TO COLOURED PLATES.

Auricula, Chapman's Maria, 161	Pelargoniums, 353
Camellia Valtevaredo, 129	Phlox, Julia Roussel, 257
„ Countess of Derby, 321	„ Souvenir d'un Ami, 257
Chrysanthemum, Golden Queen, 65	„ La Volupte, 257
„ Prince Albert, 65	Picotees, Rev. A. Matthews, 289
Fuchsias, Eclat, 33	„ Rival Purple, 289
„ Sir C. Campbell, 33	Plocostemma lasianthum, 1
Gladiolus, Berthe Rabourdin, 97	Rose, Eugene Appert, 225
Lælia Schilleriana, 193	

INDEX TO WOODCUTS.

American garden, geometrical, 347
Currant bush, trained, 154
Fern classification, diagrams illustrative of, 38, 39, 40, 41, 42, 43, 44, 101, 102, 103, 104, 105, 106, 107, 211, 212, 213
Fruit tree protector, 145
Pear, Beurré Aguste Benoist, 71
„ Fladberg, 72





Plocostemma Lasianthum.

THE

FLORIST, FRUITIST, AND GARDEN
MISCELLANY.

PLOCOSTEMMA LASIANTHUM.

(PLATE 147.)

WE this month furnish our readers with a coloured representation of this remarkable Asclepiadaceous plant, for an opportunity of figuring which we are indebted to Messrs. Low, of the Clapton Nursery, who imported it from Borneo. It is evidently a genus of the family allied to *Hoya*; its flowers, which are produced in July, are not unlike those of *Cyrtoceras reflexum*. It may be termed a long-stemmed climbing shrub, with quite the habit of a *Hoya*. The leaves are opposite, oval, or rather ovate—thick, fleshy, and deep green, especially above, with occasionally a few pale blotches scattered over their surface. The flowers, as will be seen, are numerous, pendent, and of a tawny orange colour. In a warm greenhouse or intermediate house it will doubtless flower freely, and be highly ornamental.

NEW PLUM.

IN the collection of Plums exhibited at St. James's Hall we noticed a round purple Plum, remarkably fresh in appearance for the season of the year, and by no means of a bad flavour—certainly not so rich as either the Imperatrice or Golden Drop; but still a valuable fruit for the season. This Plum was shown by Mr. William Ingram, of Belvoir Castle, to whom, however, it was unknown, and who, for want of some other name, called it the Belvoir Plum. From inquiry made of Mr. Powell, of Frogmore, whose knowledge of fruits is so well known, we learn he thinks it is not an English seedling, but probably one of the late French sorts. Can any one of our pomological friends throw any light on this question? The Plum will make a valuable acquisition to our lists, if its other properties are at all equal to its appearance.

ROSES.

A HULL correspondent, unknown to me but by correspondence, encourages me to address another letter to the lovers of Roses, by telling me that I have stirred up his neighbourhood, and caused him to purchase 50 Roses, instead of six or twelve at the most. Though he styles himself "A Poor Railway Clerk," he has had the spirit to send to Mr. Cranston for 36. It is much so here. The nobility, gentry, some of the clergy, and many of the farmers (the best Rose cultivators in the county), are budding and buying. Even the poor get briars and bud. The two largest Roses I saw last year—Baronne Prevot and Mrs. Elliott—were grown in my parish by two cottagers. These are steps—if not strides—in the right direction. The Rose cause is a growing cause. We shall soon want Cremorne Gardens or Hyde Park for the National Show. Mr. Hole has lighted a fire with Rivers's faggots, and I am proud to act stoker, and to fan and feed it. I hope the "boiler won't burst." My longing eyes have been looking in vain for the last summer's revelation of the "oft-told tale," so well told by Mr. Rivers and Mr. Paul in times past. In purchasing, I have depended chiefly on "Experientia docet," which means that you pay for your education, and partly on the "Marchands'" better judgment; and, whenever I have done so, I have not been deceived. Both old and young amateurs would do well to adopt the latter dependence. I have bought altogether, with 60 that I have given away as "tolers," or "decoy ducks," about 350. This little zeal is derived from the National, and is periphrastic praise of Mr. Hole, whose 24 Roses, "the little boys in the street" say, were the best Amateur's lot in the show. One thing is certain, that, according to the bud rule, they were one of the few lots that were not positively disqualified. It was generally a show of most noble single flowers, the buds having been removed in early life. I removed nothing; but, no more will I be "Peter Simple," no more "Peter Flat." I will, in spite of bud or Buddhist, administer early the Jewish rite upon Protestant principles, reserving to myself the right of private judgment.

As regards novelties, I have entirely depended on the "Marchands" (I use the term in distinction from the provincial nurserymen and smaller country importers). The following have been sent:—2 Eveque de Nismes by Mr. Davis, of Newbury; by Cranston, Gloire de Lyons, 2 Lælias, Duchesse de Polignac, Mmle. Godard, M. Montigny, M. Jard, Maria Portemer, Lord Palmerston, Duc de Cambridge. There was a fine bud on Lælia; she must be good. The wood of Jard was the best. Of Roses new, but not novelties, the chief are Vidot, Prince Imperial, A. Fontaine, M. Schmidt, M. Heraud, Dr. Lepestre (I doubt its being better than D. Thouars), Lady Franklin, 2 of Cardinal Patrizzi, 2 of Rebecca, 3 of Ravel, St. Remy (a bold, most fragrant, and good-habited Rose; she is the finest scented Perpetual next to M. Laffay), Triomphe de l'Exposition, M. Regnier (both admirable Roses, and I think the two best of the "seven that were to hold their ground for some time.") These two, with Ravel, will not easily be superseded; at least, they

will not leave the catalogues in a hurry. Rebecca broke very late, and bloomed only once; but, as I said before, she is a "stunner;" I have ordered six of La Ville de St. Denis. When I wrote my last article I had only bloomed it once, and very well, and I wished before writing about it to see it again; and I must now pronounce it to be the best Rose, in the line of rose colour, that I have ever seen or bloomed. I cannot always speak of the habit of a Rose on one year's trial; it requires often two years to be certain: but, as far as the flower goes, it is perfection, comparatively. Absolute perfection, of course, is absolute nonsense; but it answers to the following description:—Fine decided colour; petals large, deep, thick, round, smooth; opens freely, and stands the sun well. Tiley's Lady Franklin was in her first bloom when La Ville was in the second, and I never saw (except La Reine, when she has bloomed out her vulgarity), two more splendid Roses, of which La Ville was the more perfect, but not the more superb. I cut them with several others, and gave them to Mr. Ingram, of Blandford. He admitted that La Ville was the most perfect, but said—"Lady Franklin is splendid." I think, if Lady Franklin is good in constitution she will be called for. Lady Franklin was in poor soil highly manured, and La Ville in good soil. It is necessary to state all these tedious things when comparisons are drawn. *Toujours Fleuri* I have not reordered. The wood is bad, but as a flower it is one of the best of the newer Roses; quite first quality, and a good and constant bloomer. It will need no pruning. I should like to put the constitution of Ravel (the famous French comic actor) or Jules into this Rose, and also into the twin gems Leon and Dupuy. Symmetry and perfection are, throughout nature, more annexed to small things than great. There is more symmetry in an ant than in an elephant. The only dwarf-habited and delicate Roses that I have ordered (knowingly) are Madame Masson and Paul Joseph. "Robust" is the word for me. I generally get from one to four hurricanes a year. The one on the 7th of May damaged me greatly; as soon as the sun came out the leaves looked like fried Parsley—a garniture for eels.

I will not bore you with a list of the older sorts; but as we lack yellow and white Roses I will speak of them.

I. Yellow. I have received 2 Sulphurea, 3 Persian Yellow, 2 Harrisonii, 2 Triomphe de Rennes, Narcisse, Louise de Savoie, and Madame Maurin. My Cloths of Gold are—one, "mortuus;" the other, "moriturus"—both on Manetti. As long as we move this Rose we shall have difficulty in preserving it. But put it on a stock established *in loco*, and once get it to age, and there is no danger of its dying; though in our valley it requires spring covering, as the slightest frost nips the succulent tendrils. The Rev. Mr. Austin, of Keynstone (close here), has two noble trees against his house, which he says have cast from 1000 to 1500 blooms this year. Upon his saying it was so tender, I advised him to use my wall fruit receipt. He has two equally fine Solfaterres, quite as good bloomers, and also a splendid Ophirie, between the two, which looks like sliced salmon in goblets of Norman cream.

II. White or delicate coloured Roses: Without white, or yellow, or both, no pan (especially a pan of six Roses) can be perfect. The best I know are Clementine, Hardy, Acidalie (minus the edge), Blanchfleur,

M. Bravy. I have replenished my stock of these. Magnan I won't have; she is delicate, I hear. Henon is just come. The other Teas just come are mixed and delicate colours: Willermoz, Mansais, Comte de Paris, Sombreuil, and Barillet des Champs, and (H. P.) Madame de Manoel, a beautiful silvery blush, not strong on a briar, but very strong on Manetti.

I have put the Teas and also pot Roses under tents. The place looks like Aldershot. I have no faith in Teas here, except Dijon, which blooms magnificently in any place, as a dwarf or standard. I have it also on Manetti untried; and here I may say, that where Roses suit Manetti, it will in middling soil or indifferent, beat the same Rose on a Dog Briar, and give it a year's establishment. I speak only of one year's experience. How Manetti may go on I cannot say. See Rivers' excellent book (quite a charm), page 186, last edition. My experience this year tallies with what he says. Schmidt, Rebecca, Reveil (B.), Laffay, Victoria, Duchess of Norfolk, Bonaparte, Sutherland, have done well here on it this summer. Laffay and Norfolk revel upon it. The former is my oldest love, but will do nothing here as a standard; she does well on her own roots. Bacchus also does better on his own roots than either on Manetti or Briar. It is quite a first class Rose.

At Mr. Gill's, nurseryman, of Blandford, I saw on the 19th of October, the following Roses blooming sumptuous blooms on Manetti: The Géant, Bonaparte, Jesse, Prevost, Duchesse d'Orleans, Comte de Nanteuil (both first class Roses, but delicate here on a Briar), Norfolk, Jacqueminot, Dupuy, Victoria, and C. Sansal. Auguste Mie was out on a briar, very splendid. She is one of England's greatest beauties. How beautiful has this Rose bloomed here this summer! The Duchess of Sutherland, which has done nothing here for two years, has bloomed splendidly on both stocks. When she so blooms there is nothing better. You must keep your eye on Manetti sports. I have lost one Rose by this neglect.

I have a volume to say, but must consider your space, and cast the blame of this lengthy article on several of your readers, who have urged me into this indiscretion.

I will now say, away with the cautious maxim, "Medio tutissimus ibis;" and dash in "Medias Rosas," as I have done, and order the novelties; for I know they are getting scarce, having seen a letter from one best known, saying, "I am out of the novelties, but I have plenty of the old stuff." Haste, therefore, haste, and buy Lælia, and wait for the time when you shall use Charles Mackay's words, on the beauties of his Primrose:—

"Stand back, my joyous people, you shall see her every one,
You shall see, but not touch her, when I place her in the sun.

She will smile on you serenely,
And fairy-like, and queenly,

And pour upon your hearts, like the dew from Heaven's own dome,
The feelings, and revealings, and the pleasures of our home."

W. RADCLYFFE.

Rushton Rectory, December 5.

Dec. 24.—P.S. I thank "S. R. H." and "Prince Leon." Louis Chaix is not so good in paint as Raglan.

CHRONICLES OF A SMALL GARDEN.—No. XII.

AMONGST other flowers, which I mentioned as forming part of the stock of my small plot, were Carnations and Picotees,—flowers which, for gorgeousness of colouring, delicacy of marking, and fulness of perfume, are hardly excelled by any florists' flowers; at the same time, however, requiring, as all florists' flowers do, considerable care and attention. I remember one grower used to say, he had eleven months and a week's bother for three weeks' bloom. I hardly think it is quite that; but still, what with potting, tying, blooming, shading, layering, and housing for the winter, they are not amongst the flowers that can be described as taking good care of themselves; and it is certainly very provoking to find, after all your care, that a nasty earwig has (like a thief that he is) come in the night, ensconced himself in the calyx of your opening beauty, and spoiled your long expected bloom; or else that your fine new Carnation, from which you were expecting such a treat, has run, and become again a degenerate self. It may be thought, then, that I have no business attempting them, yet I know nothing more attractive than a good bloom of Carnations and Picotees. I this year had finer ones than I ever recollect having, and sending a box of them to a tradesman to put into his window, they created quite a sensation, people hardly being able to believe that they were natural flowers—so waxlike were the petals, and so delicate and regular the marking. It may be, some one similarly situated to myself would like to attempt them, and for their benefit I will mention what I believe to be a treatment that will ensure success. And—

1. *Soil*.—Here I would again urge that which I contended for in my paper on Auriculas,—good common sense—no quackery, no messes, but just such good plain food as plants will ever delight and thrive in. For these, as for most florist's flowers, the basis must be good loam, and it is one of the difficulties I have to contend with, that it is a very rare commodity in this neighbourhood; this, with well rotted manure from a Cucumber frame, and a portion of road grit to keep all open, will make an excellent compost for Carnations, and you may perhaps add some leaf-mould for your Picotees. It is desirable to have your compost heap turned over frequently in frosty weather, but shelter it from heavy rain and snow, for two reasons,—firstly, because you will have the fertilising salts washed out of it; and secondly, you will not have it in good working order when you come to the potting season. The proportions of each will vary according to the ideas of the grower, but I think one barrow of loam, one of manure, half of leaf-mould, and a couple of gallons of road grit, a very good mixture. If you have taken care of this during the winter, it will in early spring be in a good condition for handling, and my plan is, on the first of March, to take out each day as much as will suffice for two pots, and regularly and carefully handpick it, taking out all worms, especially those "*monstra horrenda*," wireworms (the larva of a kind of beetle), eggs of snails, or, in fact, any living thing; by this means, by the end of the month, enough to fill four dozen of pots (the amount of my

collection) will have gone under my own hands. I am then generally spared the miserable disappointment of turning out into the blooming pot a fine healthy plant, and of seeing it a month afterwards hang down its head and die.

2. *Potting*.—This I generally perform at the latter end of March and beginning of April, for it is very little use exposing the plants, before they have taken hold of the ground, to the cold biting winds of March. The pots that I use are those usually sold at 6s. a dozen (about nine inches across the top); into the bottom of these I put a considerable quantity of broken pots, and over them a thin layer of dry Moss, and on this the compost above mentioned, “*not riddled* ;” into each of these I put a pair of plants; give them a gentle watering, and stand them out in an open place, in fact, on the garden walks, until they begin to manifest signs of growth, having first tied them to small sticks to prevent them from being blown about: when they begin to “*spindle*,” I then put a stake about $3\frac{1}{2}$ feet long into the centre of the pot, and tie each of the flower stems to it, and they are then placed in their quarters for—

3. *Blooming*.—It is desirable to have a blooming stage if possible; this should be a light framework about five feet high at the sides, rising to seven in the centre; on this may either be drawn an awning, or light frames covered with tiffany be put; under this the pots are arranged so as to afford easy access; as the plants grow they are to be tied to the stakes, allowed all the air and rain they can get, and on no account to be shaded until the colour begins to show in the bud; they should be thinned of these buds, not more than three being allowed to each plant, and it will be desirable to suspend each bud to the stake by a piece of thin copper wire; as they swell, tie round the centre of each a piece of bass mat, to prevent bursting, and open the segments of the calyx with a blunt piece of ivory; cards (those sold by Meek are the neatest) should be slipped over the bud, and as the petals expand they should be laid by a pair of Carnation tweezers on the card. I, of course, only presume that this will be done when a first-rate bloom is wanted; they will expand, and look pretty enough without it, but they will not be A 1. But when you have done all this, you may, with a good deal of safety, ask any of your friends to beat that if they can. And now—

4. *Layering, &c.*—This process is so well known to all florists that it seems useless to describe it; the gardener that I employ cuts the top instead of the underneath side of the shoot, and then gives it a twist round, a plan which ensures the non-closing of the wound again; the time for doing it depends on the state of the plants: mine are ready the end of July, and are done a few at a time during that and the following month. In September they are ready to take off; I pot them singly into 48's, using the stuff they have been growing in, with the addition of a little fresh loam; they are then put into a frame, and kept close for a few days; after this, put into a pit, and left exposed, though I do not allow them to have any heavy rains; all dead leaves are to be cut off, and green fly carefully watched.

5. *Wintering*.—Here I believe great mistakes are often com-

mitted, as the plants are *coddled* too much. If persons would only recollect that it is not frost so much as damp that they dread, they would act more sensibly. Let them be set on coal ashes, in a frame, or even under a wooden shutter against a south wall, have all the air possible, be kept tolerably dry, and you will not lose any of your plants. Some growers have a treacherous plan, I believe, of putting them after they are taken off the plants, into a gentle bottom heat, to encourage root growth. This I call treacherous, for the plants are thereby made delicate, and then, when they come to receive more hardy treatment, like many a fair human flower, the heated room has made them so susceptible of cold, that the seeds of consumption are sown, and they wither and die.

I add the names of a few really good ones in each class.

Scarlet Bizarres.

Admiral Curzon
Captain Thompson
Grand Monarch
Oliver Goldsmith
Silistria
Lord Raglan

Crimson Bizarres.

Chancellor
Premier
Orestes
Rainbow
Sir George Brown
Tenby Rival

*Pink and Purple Bizarres.**

Falconbridge
Lady of the Lake
Sir Colin Campbell

Purple Flakes.

Ascendant
Earl Stamford
Touchstone
Beauty of Woodhouse
Squire Trow
Poins

Scarlet Flakes.

Africana
Christopher Sly
Defiance
Sportsman
Justice Shallow
King of Scarlets

Rose Flakes.

Flora's Garland
King John
Lord Belper
Poor Tom
Lady Gardener
Lovely Ann

Red Edged Picotées.—Heavy edged.

Cedo Nulli
Dr. Pitman
Mrs. Lochner

Ditto.—Light Edged.

Eugenie
Duke of Wellington
Charles Turner

Purple Edged.—Heavy Edged.

Countess
Duke of Devonshire
Lady H. Moore

Ditto.—Light Edged.

Exquisite
Finis
Mrs. Hobbs
National

Rose and Scarlet Edged.—Heavy Edged.

Helen
Alice
Lady Grenville
Queen Victoria

Ditto.—Light Edged.

Mrs. Barnard
Mrs. Turner
Ariel

* This is a very limited class

THE NEW PLANTS OF 1858.

WE offer with the new year our usual summary of the novelties of the past season. In doing this we wish it to be understood that it is the most prominent of those which have appeared in public, or have been figured or noticed in the various botanical and horticultural publications, that we here bring together for ready reference. There are, no doubt, others, which have found their way into gardens, which have not taken so prominent a position, or which we shall hear of hereafter. Our notes are necessarily brief, on account of the space they would otherwise have occupied, but we trust sufficient to give some general idea of the several plants. We have thought it useful, moreover, to record the accessible figures of the plants which have been issued. Florists' flowers are excluded from our plan, and we have arranged our notes under the heads of ORCHIDS, STOVE PLANTS, and GREENHOUSE AND HARDY PLANTS, for the purpose of greater distinctness.

GREENHOUSE AND HARDY PLANTS.

As ornaments to the conservatory and greenhouse, we have several very choice kinds of Indian Azaleas, offering variety and advance; one or two very nice new Camellias; and some of the new Indian Rhododendrons, of which R. Nuttallii carries the palm over all previously known; R. Boothianum is interesting on account of its colour—a clear primrose yellow; while the dwarf R. virgatum is a little gem. Of another character, but possessed of considerable merit, are the Chianthus Dampieri, with its oddly-shaped richly-coloured flowers; Cynoglossum nobile, the Forget-me-not of the Chatham Isles; Solanum capsicastrum, a dwarf bush studded with vermilion-coloured fruit about the size of nuts; Lobelia trigonocaulis, a dwarf blue-flowered plant likely to be useful for bedding; and Darlingtonia californica, a singular and novel kind of Pitcher-plant.

To the class of hardy trees and shrubs we add—*Æsculus californica*, *Amygdalus persica* v. *caryophyllæflora*, and *Rhododendron Bysianum*, all charming showy flowering plants; and *Ilex cornuta*, *I. Fortuni*, *Olea ilicifolia*, and *Torreya grandis*.

The out-door flower garden has received as acquisitions the blue *Pentstemon Jaffrayanum*, the purple *Saxifraga purpurascens*, the striped *Phlox Triomphe de Twickel*, and a rose-coloured *Solomon's Seal*, among perennials; and *Cosmanthus grandiflorus*, *Oenothera bistorta* v. *Veitchiana*, and *Tropæolum majus*, a dwarf scarlet variety called *Tom Thumb*.

ÆSCULUS CALIFORNICA. (Bot. Mag. t. 5077.) The Californian Horse Chestnut forms a low spreading deciduous tree, probably hardy, the leaves palmate, the flowers (produced on young plants) white, crowded, forming dense terminal thyrses often a foot in length. The flowers are said to be rose-coloured in the wild plants, so that it probably varies. California. Messrs. Veitch & Son.

AMYGDALUS (PERSICA) CARYOPHYLLÆFLORA. (Florist, t. 144.) The Carnation-flowered Peach. A charming variety of the Peach introduced from China, the blossoms large, nearly full, double, pink, flaked with rose colour. Mr. Glendinning.

APTERANTHES GUSSONIANA. (Bot. Mag. t. 5087.) One of the curious

succulent plants related to *Stapelia*. It has quadrangular toothed stems, and near their apices bear umbels of small star-shaped flowers, on short stalks; they are pale yellow transversely banded with dingy purple. It is a greenhouse perennial. *Algeria. Kew Botanic Garden.*

ARALIA SIEBOLDII. A fine greenhouse shrub, with large bright green glossy leaves. *Japan. Messrs. Veitch & Son.*

AZALEA INDICA, var. *ALEXANDER II*. (*Flore des Serres*, t. 1243.) A beautiful novel variety, having large white wavy flowers, as in *crispiflora*, marked with few broad streaks of bright red. A Belgian variety. *M. Van Houtte.*

AZALEA INDICA, var. *DISTINCTION*. (*Florist*, t. 143.) A beautiful vigorous-growing variety of excellent properties, said to have been raised from *Barclayana*, fertilised with *Criterion*; flowers rich salmon, margined irregularly with white, and occasionally striped with carmine, the upper segments densely spotted with crimson. A garden variety. *Messrs. Ivery & Son.*

AZALEA INDICA, var. *DUC DE BRABANT*. (*Illust. Bouq.* t. 23.) Flowers large, of a light rosy salmon, with rich crimson spots on all the lobes, and a tuft of petaloid stamens in the centre. A Belgian variety. *Messrs. E. G. Henderson & Son.*

AZALEA INDICA, var. *ETOILE DE GAND*. (*Illust. Bouq.* t. 23.) Flowers large, round lobed, white, with a delicate rose coloured mark in the centre of each lobe, forming an elegant star-like centre, and having lines of carmine spots on the upper segments. A Belgian variety. *Messrs. E. G. Henderson & Son.*

AZALEA INDICA, var. *LEOPOLD I*. (*Illust. Bouq.* t. 23.) A Belgian variety, flowers large, rich rose colour, the upper lobe spotted with crimson; a tuft of petaloid stamens in the centre. *Messrs. E. G. Henderson & Son.*

AZALEA INDICA, var. *PERFECTION*. (*Florist*, t. 143.) A robust-habited variety, with large flowers of excellent form, and of a lively rose colour, thickly spotted on the upper segments. A garden variety. *Mr. Frost.*

AZALEA INDICA, var. *REINE DES PANACHEES*. (*Illust. Bouq.* t. 23.) Flowers large, white, striped and spotted all over with rose colour. A Belgian variety. *Messrs. E. G. Henderson & Son.*

AZALEA OVATA. (*Bot. Mag.* t. 5064.) A pretty and scarce half hardy dwarf shrub, with small ovate leaves, and comparatively large and abundant pale purple flowers. North of China. Introduced some years since by the *Horticultural Society*.

BARKLAYA SYRINGEFLORA. A fine greenhouse shrub, with orange yellow flowers in the way of a Persian Lilac, only of an orange yellow colour. *Moreton Bay. Messrs. Low & Son.*

CALLICARPA PURPUREA. A hardy greenhouse shrub, with sharply serrated leaves, in the axils of which appear bunches of insignificant flowers succeeded by small shiny purple berries resembling glass beads, which are very ornamental, and remain all the winter on the plant. *China. Mr. Standish.*

CAMELLIA JAPONICA, var. *CUP OF BEAUTY*. (*Florist*, t. 141.) A handsome Chinese variety, with something the character of the old double white; pure ground colour, with an occasional streak of pink, the centre well filled. *Mr. Glendinning.*

CAMELLIA JAPONICA, var. *PRINCESS FREDERICK WILLIAM*. (*Florist*, t. 139.) A very handsome variety of the striped class, with imbricated close flowers; the ground colour blush, with stripes and varied markings of pale rose colour, in the way of *Alberti* or *Prince Albert*. *China. Mr. Glendinning.*

CAMELLIA JAPONICA, var. *VERGINE DI COLLE BEATI*. (*Flore des Serres*, t. 1245.) A curious white imbricated variety, in which the petals are ranged in seven curving or spiral lines, instead of alternating throughout in the usual way. An Italian variety.

CAMELLIA ROSEFLORA (*Bot. Mag.* t. 5044.) A single flowered *Camellia*, the flowers of a rose pink, and small; cultivated as *C. euryoides* (incorrectly) for many years at *Kew Botanic Garden*.

CAMPANULA STRIGOSA. (*Bot. Mag.* t. 5068.) A dwarf hairy annual, 4-5 inches high, scarcely branched, with oblong-ovate leaves, and largish bell-shaped deep violet blue flowers, with a yellowish white tuber. *Syria. Kew Botanic Garden.*

CLIANTHUS DAMPIERI. (*Bot. Mag.* t. 5051.) A splendid flowered green-

house soft-wooded subshrub, of rather difficult management. It has grayish hairy pinnate leaves, and racemes of large rich crimson-scarlet Papilionaceous flowers, of which the standard is bent back and the keel elongated; the standard has a large blackish purple boss on its face just above where it reflexes; very showy. Australia. *Messrs. Veitch & Son*, and others.

COLLETTIA CRUCIATA. (Bot. Mag. t. 5033.) This is the plant known as *C. Bictonensis*. It is a singular shrub, half hardy or hardy in the most favoured localities, producing creamy-white bell-shaped flowers. The stems consist of thick spine-pointed triangular lobes, in pairs, set alternately in opposite directions. Banda Oriental.

COSMANTHUS GRANDIFLORUS. (Bot. Mag. t. 5029.) A fine hardy annual plant, belonging to the Hydrophyllaceæ. It has the habit and foliage of *Eutoca viscida*, but much larger flowers, which are of a pale purple colour. Sometimes called *Eutoca grandiflora*. California. *Messrs. Veitch & Son*.

CYNOGLOSSUM NOBILE. (*Gard. Chron.* 1853, 240.) A very remarkable and handsome dwarf greenhouse perennial herb, with very broad thick cordate furrowed leaves, having 5-7 strong parallel nerves. The flowers, which are like those of *Forget-me-not*, but larger, grow on scorpioid scapes, about a foot high, and are blue edged with white. Chatham Island. *Mr. Watson*.

DARLINGTONIA CALIFORNICA. A curious two-horned side-saddle flower, or *Sarracenia*, one of the plants forming pitcher-like leaves. California. *Messrs. Jackson & Son*.

DASYLIRIUM ACROTRICHUM. (Bot. Mag. t. 5030.) An Asparagineous greenhouse Yucca-like plant, forming a spreading crown of long slender thickish leaves, and producing from the centre an erect flower-stem, about 16 feet high, three or four feet of the upper part of which consists of a crowded series of spikelets, bearing insignificant green flowers. The beauty of these plants lies entirely in their habit. Mexico. *Kew Botanic Garden*.

DASYLIRION GLAUCOPHYLLUM. (Bot. Mag. t. 5041.) Another fine Asparagineous greenhouse plant, with a large spreading head of narrow glaucous rigid leaves of Yucca-like habit. The flowers are in crowded spikelets, collected into a long compound spike at the top of the tall central erect flower-stem, 10-12 feet high. Mexico. *Kew Botanic Garden*.

DIGITALIS PURPUREA, var. *GLOXINIOIDES*. A fine variety of the common Foxglove, the flowers white or flesh-colour, with deep blotches of crimson, resembling a *Gloxinia*.

ERICA AMABILIS FLORIBUNDA. A distinct variety of the *retorta* set; flowers large, profuse, delicate rose, produced in the late summer and autumn months. A garden variety. *Messrs. Rollisson*.

ERICA FAIRRIEANA. A striking variety, of free growth, raised between *ampullacea* and *aristata*, partaking of the former in the size and of the latter in the colour of the flowers. A garden variety. *Messrs. Rollisson*.

EUGENIA LUMA. (Bot. Mag. t. 5040.) The *Eugenia apiculata* of gardens. It is a fine Myrtaceous and Myrtle-like hardy or half-hardy evergreen shrub, with oval oblong sharp-pointed leaves, the branches loaded during summer with its white blossoms. Chili. *Messrs. Veitch & Son*.

FIELDIA AUSTRALIS. (Bot. Mag. t. 5039.) A straggling greenhouse shrub, with opposite ovate-lanceolate acuminate leaves, and pendulous pale greenish-yellow tubular flowers for their axils. Australia. *Kew Botanic Garden*.

FRITILLARIA GRECA. (Bot. Mag. t. 5052.) A neat, hardy, bulbous perennial, with short, slender, erect stems, linear-lanceolate leaves, and nodding flowers, borne singly or two together, pale reddish brown, with a green border. Mount Hymettus. *Kew Botanic Garden*.

GARDENIA CITRIODORA. (Illustr. Bouq. t. 17.) A fine representation of this profuse-blooming fragrant warm greenhouse shrub is given in the above plate.

GARDENIA RADICANS, var. *MAJOR*. (Illustr. Bouq. t. 24.) A most desirable variety of a highly popular plant. It is distinguished by its more robust growth, its more oval and less lanceolate deep green leaves, and its larger blossoms, which, like the parent, are pure white and fragrant. A garden variety.

GAULTHERIA DISCOLOR. (Bot. Mag. t. 5034.) A small hardy Ericaceous shrub, with obovate-lanceolate leaves, longitudinally ribbed and silvery beneath,

and short axillary racemes of white pitcher-shaped flowers, with small pink lobes Bhotan. *T. Nuttall, Esq.*

GRAMMATOCARPUS VOLUBILIS. (Bot. Mag. t. 5020.) A slender half hardy climber of the Loasa family, having opposite bipinnatifid leaves and curiously formed yellow flowers from the forkings of the stem. It is sometimes known as *Scyphanthus elegans*.

HYDRANGEA CYANEMA. (Bot. Mag. t. 5038.) A half hardy under shrub, with broad ovate toothed leaves, and corymbs of white (the neuter) flowers streaked with red. Not equal to the two common kinds. Bhotan. *T. Nuttall, Esq.*

ILEX AQUIFOLIUM, var. PENDULUM FOLII VARIEGATIS. A fine weeping variety of Holly, with prettily variegated leaves. A garden variety. *Messrs. Perry.*

ILEX CORNUTA. (Bot. Mag. t. 5059.) This fine evergreen shrub seems to be quite hardy. Its leaves are remarkable in form, having one or two marginal spines and the apex dilated with usually three spiny spreading horn-like points; flowers small white, axillary. China. *Mr. Standish.*

ILEX FORTUNI. (*Gard. Chron.* 1857, 868.) A handsome evergreen shrub, resembling *I. cornuta* when young, but having, when more mature, broad entire leaves. It becomes very ornamental when loaded with its red berries, which come in in umbels from the axils of the leaves. North of China. *Mr. Glendinning.*

INDIGOFERA DECORA. (Bot. Mag. t. 5063.) This is a good figure of this charming greenhouse shrub, which is not so common as it deserves to be.

ISMELIA BROUSSONETII. (Bot. Mag. t. 5067.) The old-fashioned *Chrysanthemum Broussonetii*, probably lost till now re-introduced. A free-growing greenhouse shrub, with bipinnatifid leaves, and large lilac tinted white flowers with a dark eye, not unlike the common Ox-eye Daisy. Madeira. *New Botanic Garden.*

LIGUSTRUM SINENSE. (*Gard. Chron.* 1858, 621 with fig.) A deciduous and apparently hardy species of Privet, with slender downy branches, oval-obtus leaves, and panicles of small white flowers, somewhat resembling those of the common kind. China. *Mr. Glendinning.*

LOBELIA TRIGONOCALIS. (Bot. Mag. t. 5088.) A handsome decumbent half hardy or greenhouse perennial, having lacinate subpinnatifid leaves and large axillary flowers, blue with a white centre, resembling those of *L. ramosa*, but paler. It is a free-flowering plant, and will probably be useful for bedding out. Moreton Bay. *Messrs. Low and Son.*

LOMATIA BIDWILLII. A handsome-leaved evergreen greenhouse shrub, the leaves pinnate, 18 inches long, the leaflets surrounded with spines. New Caledonia. *Messrs. Rollisson.*

LOMATIA ELEGANTISSIMA. An extremely elegant evergreen greenhouse shrub, with Fern-like foliage. New Caledonia. *Messrs. Rollisson.*

LUPINUS HARTWEGII, var. CÆLESTINUS. A very distinct variety of this ornamental annual; the flowers of a delicate pale blue, pink at the edges. A garden variety. *Messrs. Carter and Co.*

NOLANA PARADOXA, var. VIOLACEA. A variety with larger flowers, of a distinct rosy violet colour. A garden variety. *Messrs. Carter and Co.*

ENOOTHERA DRUMMONDII, var. NANA. A dwarf annual variety of this showy border plant; flowers large, bright yellow, and blooming long in succession. Texas. *Messrs. Carter and Co.*

ENOOTHERA BISTORTA, var. VEITCHIANUM. (Bot. Mag. t. 5078.) A showy hardy annual pubescent subdecumbent species, having ovate-lanceolate or ovate toothed leaves, and axillary deep yellow flowers with small blood-red spots at the base of the petals. Probably useful for garden decoration. South California. *Messrs. Veitch and Son.*

OLEA ILICIFOLIA. A hardy evergreen shrub, with large handsome foliage; flowers pure white, twice the size of *Olea fragrans*, and as finely scented. Japan. *Messrs. Veitch and Son.*

PENTSTEMON JAFFRAYANUS. (Bot. Mag. t. 5045.) A fine hardy or half hardy herbaceous perennial allied to *P. speciosus*. The leaves are glaucous, entire, the lower ones spatulate; the flowers in long terminal panicles, large bright blue, stained with deep red at the base of the tubes. It is a charming plant. California. *Messrs. Veitch and Son.*

PINUS BONAPARTEA. (*Gard. Chron.* 1858, 358.) A distinct species of the Weymouth section; the leaves in fives, slender, 2-4 inches long; the cones a foot long. *P. Durangensis* seems to be a smaller state of the same plant. Mexico. *M. Roezl*.

PINUS DON PEDRO. (*Gard. Chron.* 1858, 240.) A splendid tree, 35-45 yards high, with long flexible branches; the leaves fine, five in a sheath, six inches long, glaucous; cones very large, 14 inches long 5 inches in diameter. A Pine of the Weymouth section. Mexico. 8-9000 feet elevation. *M. Roezl*. Several other new Pines have been introduced from the same source, but there are strong doubts of their distinctness.

PHLOX DECUSSATA, var. *TRIOMPHE DE TWICKEL*. (*Flore des Serres*, t. 1248.) An extremely beautiful Belgian variety of the hardy herbaceous section of the family, remarkable for having its abundant flowers of a light rose purple with a broad distinct margin of white down each side of the segments of the limb.

POLYGONATUM PUNCTATUM. (*Bot. Mag.* t. 5061.) A hardy herbaceous tuberous perennial, related to *Convallaria*, with ovate lanceolate leaves, and two-flowered axillary peduncles, the flowers being small, erect, whitish, tipped with green. Bhotan. *T. Nuttall, Esq.*

POLYGONATUM ROSEUM. (*Bot. Mag.* t. 5049.) A pretty hardy herbaceous tuberous perennial. It has oblong lanceolate leaves, frequently growing in threes, and from their axils the pretty pale rose bell-shaped flowers spreading or often decurved appear, frequently in pairs. Siberia. *Kew Botanic Garden*.

PROSTANTHERA CUNEATA. A dwarf greenhouse shrub, with small obtuse leaves and lavender coloured flowers prettily spotted with blue. Australia. *Messrs. Rollisson*.

RHODODENDRON ARGENTEUM. (*Bot. Mag.* t. 5054.) A fine hardy or half hardy shrub, with large oblong-obovate leaves silvery beneath, and dense heads of flowers, pale rose colour in the bud, changing to cream colour and white. Sikkim Himalaya. *Kew Botanic Garden*.

RHODODENDRON BOOTHII. (*Illustr. Bouq.* t. 174.) A desirable neat-growing shrub, with ovate-lanceolate leaves, more or less hairy, and heads of moderate sized primrose coloured flowers. Bhotan. *M. A. Verschaffelt*.

RHODODENDRON BYLSIANUM. (*Illustr. Bouq.* t. 18.) A charming hardy evergreen shrub, producing large heads of brilliant flowers, in which the centre is white and the border lively rose colour. A Belgian variety. *Messrs. Byls*.

RHODODENDRON CALOPHYLLUM. (*Illustr. Bouq.* t. 19.) A fine compact growing evergreen greenhouse shrub, the flowers large, white, fragrant. Bhotan. *Messrs. E. G. Henderson and Son*.

RHODODENDRON GRIFFITHIANUM, var. *AUCKLANDII*. (*Bot. Mag.* t. 5065.) This Indian plant, known as *R. Aucklandi*, is among the very finest of the genus, having bold oblong acute leaves, and fine heads of large white blossoms, each sometimes six or seven inches across; they are five lobed, with a short tube and open limb. Sikkim. *Mr. Gains*.

RHODODENDRON NUTTALLI. (*Illustr. Bouq.* t. 21.) The most magnificent of the Indian Rhododendrons, as far as yet known. It forms an evergreen shrub with large broad veiny leaves, the stems terminating in a colossal corymb of large white blossoms, which are about six inches in diameter, and nearly as much in length, stained at the base of the cup with pale orange, very fragrant. Bhotan. *Herr Forster, Augsburg*.

RHODODENDRON VIRGATUM. (*Bot. Mag.* t. 5060.) A dwarf slender twiggy Rhododendron with small oblong acute leaves, glaucous and scaly beneath; flowers of moderate size, delicate rosy pink, remarkable for growing singly (or sometimes two together) in the axils of the upper leaves, not in terminal bunches, as is usually the case, although being closely placed, they form something of a terminal head. It is extremely pretty, and will probably prove useful, both as a forcing plant and a breeder. Sikkim and Bhotan. *T. Nuttall, Esq.*, and *Messrs. Low and Son*.

RHODOLEIA CHAMPIONI has been bloomed for the first time in England, during the spring of 1858, by Mr. Fleming, of Trentham. The flowers, however, were not so handsome as was expected.

SALVIA TRICOLOR. (*Flore des Serres*, t. 1257.) A pretty slender sub-shrubby greenhouse plant, with small ovate leaves and long spikes of white

flowers, having the upper lip faintly tipped with light purple and the lower half or apex of the lower lip bright rose colour. Mexico. *M. A. Verschaffelt*.

SAXIFRAGA PURPURASCENS. (Bot. Mag. t. 5066.) A beautiful hardy perennial, with large broad, rounded obovate leaves, and scapes six or eight inches high, supporting a dense branched subcorymbose panicle of drooping flowers of a deep red purple. Sikkim Himalaya. *Kew Botanic Garden*.

SENECIO MIKANLE. A fast-growing greenhouse climber, with light green smooth fleshy ivy-like leaves, and axillary corymbs of yellow sweet-scented flowers, seldom produced. It is a very useful summer plant for various purposes in the flower garden. Also known as *Delairea odorata*.

SOLANUM CAPSICASTRUM. (Flore des Serres, t. 1242.) A pretty greenhouse dwarf sub-shrub with small oblong lanceolate leaves and small flowers, succeeded by globular vermilion coloured berries, which are extremely ornamental. Brazil.

STATICE BONDWELLII. A neat half hardy biennial, with spreading sinuated leaves and branching flower stems bearing yellow flowers. Algiers. *Mr. W. Thompson*.

THUNBERGIA NATALENSIS. (Bot. Mag. t. 5082.) A fine greenhouse evergreen subshrub, with opposite ovate acute sessile largish leaves, and stalked axillary horizontally-placed flowers, which are large and showy, with the curved tube yellow and the spreading limb of a pale blue. Natal. *Messrs. Veitch and Son*.

TORREYA GRANDIS. (*Gard. Chron.* 1858, 588.) A noble evergreen tree, perfectly hardy. It has some resemblance to *Cephalotaxus*. Mountains of Northern China. *Mr. Glendinning*.

TRITOMA UVARIA. (Illustr. Buq. t. 22.) A fine plate of this well-known stately and brilliant herbaceous plant.

TROPEOLUM MAJUS, var. *NANUM*. (Tom Thumb.) A remarkably dwarf and compact variety, not running, and bearing a profusion of bright scarlet flowers. It will form a very handsome summer plant for beds or pots or vases. A garden variety. *Messrs. Carter and Co.*

VERONICA DECUSSATA, var. *AZUREA*. A hybrid raised between *decussata* and *speciosa*, much resembling the former, but the colour of the flowers different. A garden variety. *J. Luscombe, Esq.*

Orchids and Stove Plants will be given in our next.

LACHENALIA QUADRICOLOR, &c.

THIS beautiful genus of plants, or in other words bulbs, when properly cultivated, deserves the attention of every true florist, for so various are their colours, that they may be said to vie with the hues of the rainbow. Some of the species are almost hardy, requiring but little protection during the winter. In spring and summer, their purple and yellow flowers greatly enhance the beauty of the flower border or parterre. As has been asserted by some writers, if we examine the bulbs of *L. glauca*, we shall find, upon close inspection, that an *extra* coating of thick scales envelops them, showing a timely provision of Nature, to protect the lovely gems that stud our mother earth. Having headed this article with my old favourite, *L. quadricolor*, perhaps a few remarks on its culture may not be unacceptable to the readers of the *Florist*.

It is the ambition of most gardeners, when their employers require flowering plants in the winter for decorating the drawing room and conservatory, to have a good succession of bulbs at this season. The *Lachenalia* is admirably adapted for that purpose, as this bulb may be had to flower at any time. Its scarlet and yellow tints blend

strikingly amongst Hyacinths, Tulips, &c., forming a pleasing effect. The balls containing the bulbs of this plant should be turned out and repotted about the beginning of September, carefully removing all the young or weak bulbs, which must be potted by themselves, as they require to be grown one season before the flowers come good. Having selected the best bulbs, and having the pots well cleaned and drained, fill them with the following compost, to within an inch and a half of their rims : two parts peat to one of yellow loam, well mixed together, adding at the same time a good supply of sand. Some prefer peat and sand only ; this I think is apt to weaken the bulb ; consequently the flowers cannot be so fine ; neither do they turn out so clean when potted. The pots being filled to the height required, press the soil gently down, making it level ; then place the bulbs thickly in the pot, as they are small, to make them adhere to the soil ; then fill the pot with the same compost to the rim, pressing it down, and the work is finished. About two dozen pots (48's and 32's) will be enough filled at one time ; about the end of the month, pot off the same number, which will be quite sufficient to keep up a good succession during the winter. On removing the pots from the potting shed, place them in a cool frame or pit, giving just enough water to moisten the soil. The roots will shortly begin to push vigorously, filling the pots ; and as soon as the top of the plant is seen to appear remove them to a shelf, near the glass, in the greenhouse (which is preferable to a forcing pit, as they are apt to grow fast, and produce abortive flowers), when they should be well supplied with water, and occasionally a little liquid manure. In this situation the plants will show for bloom ; then they may be placed in the conservatory, or where flowers may be required.

These plants, if well treated, will continue for some time in flower ; when on the wane, water must be gradually withheld ; when done flowering, place them in a warm pit, to gently ripen them off, and finally remove to a dry shed, when the pots may be stacked on their sides till required again next season. Each batch of pots should be carefully labelled when stowed away, to prevent mistakes, as it is necessary to use them in proper rotation.

C.

MONSIEUR FERDINAND GLOEDE ON STRAWBERRIES.

A LETTER ADDRESSED TO THE REV. W. F. RADCLIFFE.

Les Sablons, near Moret-sur-loing, France.

REV. AND DEAR SIR,—Although not having the honour of being known to you, still on the strength of certain sympathies existing between us, I take the liberty of addressing to you these lines. From various highly interesting articles in the *Florist*, and, if I mistake not, in the *Midland Florist* also—for which the horticultural world is indebted to you—I learned that the Strawberry is one of your plants of predilection. Being myself a most enthusiastic lover of this delicious fruit, it struck me that it might be mutually agreeable for us to communicate to each other occasionally our experience and ideas on this subject. I possess the most complete collection in the world ;

upwards of 200 sorts ; the most popular of which I have described in my new catalogue, which I beg leave to send you by this mail. Through my numerous relations in all parts of the world, I endeavour to procure for myself every year the novelties raised by eminent growers—in the first instance, with a view to satisfy my curiosity, and also with the object of supplying plants to the most important seed merchants of Paris and abroad.

I notice that the Keen's Seedling, Trollope's Victoria and Black Prince [I do not keep it, but spoke of it as a forcer.—W. F. R.] are favourites with you. The first named is, in fact, a good sort, but now superseded by Sir Harry. In France, Keens is not generally liked, because it produces but few fruits of a fair size, and the rest are so small that they are scarcely worth gathering. [It is not so here—W. F. R.] Victoria is one of my favourites, although a little soft, and deficient in flavour ; nevertheless it is a noble fruit, and of very easy culture. [In all this I concur.—W. F. R.] Black Prince is indeed very early, but it is a bad setter, and of middling quality, and when forced, subject to mildew. Nicholson's May Queen, will, I think, be a dangerous rival to it in every respect. You justly praise the old Hautbois, as regards flavour. I grow about half-a-dozen varieties of the same, the best of which are the Black Hautbois, the Improved Hautbois, and Belle Bourdelaise ; the latter yields regularly a second crop in the autumn, [I doubt its doing so here.—W. F. R.], and forces well. It is said to be a cross between the old Hautbois and the Alpine. As regards the Rival Queen, I must tell you that it has thus far by no means warranted the high character Mr. Tiley gave it. I got fifty plants from him, two years ago, and have now a very large bed of it, with remarkably strong plants ; but, as yet, have not seen one single perfect fruit upon it, but only a few ill-shaped fruit. I should like to know whether you have been more successful. [He has stated my case ; the fruit of this and the Queen were much like a cancerous nose ; most of the berries came to "nil," but such as came to anything at all were firm and excellent in flavour.—W. F. R.] The British Queen is certainly a standard of perfection, when it finds a suitable soil ; but unfortunately it is very particular in this respect. My soil is a good light loam, and it thrives pretty well in it ; but, still the leaves soon get yellowish [mine are a mat brown.—W. F. R.], and the fruit attains rarely to perfection. Last spring, I planted some in old turf, where they seem to delight [the drainage I trow.—W. F. R.] ; but it remains to be seen how the fruit will turn out next season. I grow some sorts of the same race, namely, Barratt's Magnum Bonum, and Hendries' Seedling, that are more hardy and fruitful ; but Kitley's "Carolina superba," will, I think, supersede them all. Sir Harry is a splendid sort, and cannot be praised too highly, both for forcing and out-door culture. [I like Sir Harry, but it is not so hardy as Keens, though it is hardy ; its fault is, that it casts more fruit than ordinary good culture can bring to perfection ; and like ninety-nine out of a hundred Strawberries ; old or new, it lacks "musk."—W. F. R.] Goliath is a capital bearer, fine fruit, but deficient in flavour. [It is excellent in flavour here, but short of the Queen, its fault is that its

shape is "obtuse" and "snubby" at the tips, and short of colour on the tips. The way to colour a Strawberry is to tie up the leaves, and let in the sun. The plants came to me in pots like a barrister's wig. The runners from them are strong, and show no effect of frost.—W. F. R.] Princess Alice Maude is good; but, here, quite distinct from Keens; it is of a pale scarlet colour, and conical shape, and a little earlier than Keens [except in foliage, it is exactly like the old Carolina here.—W. F. R.] Of late sorts, Eleanor is by far superior to Elton Pine, in colour and flavour. The former does also very well as a late forcer. Two years old plants give me fruit of astounding size and beauty. Adair is no great things. Madame Vilnorin, of the Chili race, and a seedling from it, is first-rate in flavour. [I have her, and will report next year. She is M. Gloede's child.—W. F. R.] Of English Strawberries, I advise you to try Sir. C. Napier, Omar Pacha, Filbert Pine, Ruby, Sir W. Scott, C. Superba, Prince of Wales (Stewart and Neilson), Bicton White Pine, Eliza Rivers, Fillbasket, Ladies' Fingers [must be good.—W. F. R.]; and, on account of its size and beauty, Salter's Jucunda; these will give satisfaction. Permit me now to say a word about others than English Strawberries. Thus far, it seems impossible to get the good English folks to try French and Belgian varieties. Surely they are wrong in pretending that there are no Strawberries good for anything but what are raised in the United Kingdom. My own twelve years' experience has proved the contrary, and my opinion has been confirmed by my good friend, Mr. Nicholson, of Egglecliffe, in Yorkshire, who cultivates with great success some French and Belgian seedlings. It must, therefore, be considered prejudice, when English growers generally exclude them from their culture.

Of French sorts I highly recommend the following:—Comte de Paris [my brother gardener likes it much.—W. F. R.], Marquise de Latour Maubourg, Princesse Royale, Cremont (not Perpetual, as stated by some), Belle de Paris, Gelineau, La Chalonnaise, Prince Imperial. Belgian: Excellente, Ne Plus Ultra, La Reine, a white sort distinct from the Bicton Pine, and of finer flavour; Triomphe de Liege, La Delicieuse, La Constanté (new). American: Baron, Triumph, and Hovey's Seedling.

Do you know the Alpine Strawberry without runners—red and white? They make beautiful borders or edges in a kitchen garden, and fruit throughout the season. I was so happy as to raise a seedling from Sir Harry, without runners, producing large fruit, which will of course be difficult to propagate, but must finally prove a great acquisition. In case you should like to try some of our continental sorts, I shall be happy to place them at your disposal. [I have asked him to send me Bicton White Pine, La Reine, Belle Bordelaise, Hooper's, Hovey's, and Hendrie's Seedlings, Black Hautbois and Viridis (fraise verte), a curiosity, I trow. I told him my ideas of a Strawberry were—firm flesh, juicy, sweet, and musky.—W. F. R.] Do you know any one that has got the old black Strawberry, called by some "Mulberry, or Black Canterbury?" If so, you might render me a service by procuring me some plants. I fear, however, that this old treasure, said to be the finest flavour of all, is lost altogether. [I never heard of it.—W. F. R.]

At any rate, it is much to be regretted that the Horticultural Society in London abandoned its culture, owing to the delicacy of the plant.

I shall be delighted if you will kindly favour me with an answer [I wrote by return of post.—W. F. R.], and if I can be of service to you in this country, please communicate with me freely.

I am, reverend and dear Sir,

Yours very respectfully,

FERDINAND GLOEDE.

I make no apology for sending you the above interesting and friendly letter. Mr. May, of Blandford, read it, and said, "I cordially agree with him. It is evident to me he knows what he is writing about."

W. F. RADCLYFFE.

Rushton.

LONICERA FRAGRANTISSIMA.

MANY of your readers who are enabled to secure to themselves the gratification of flowers during the summer, must feel it a great deprivation to be suddenly robbed of the objects of their joy and care, by the ungenial influences which winter brings; and those amateurs who have no conservatory, and who are unaware of the existence of hardy winter blooming plants, have, I presume, to content themselves with the recollections of the gay things of summer, or at best to seek some solace in the care of pet plants, cherished in some tiny glazed box or window frame. I can quite imagine that many of your fair readers, who were wont to fill their vases daily with flowers, find after the decay of the Chrysanthemum, and the few lingering Rosebuds (a legacy which the Queen of flowers still leaves us), that further attempts at floral ornamentation are futile, and, with a sigh, relinquish the task. To such, I am sure the plant which I wish to recommend to their notice will be a boon indeed. The hardy winter blooming Honeysuckle, *Lonicera fragrantissima*, has not the beauty of some of its compeers, but then it has all and more of their sweetness, and it blossoms in December, when large gay exposed flowers would be rent and torn by the blasts of winter. Its flowers come out coyly in pairs. Four pairs of flowers are commonly produced from the axil of every leaf; and the pairs of blooms are seated on slender little stalks, just long enough to enable each little flower to expand. The flower has not a long tube, like the common Honeysuckle, but blooms within the protection of the leaf, which remains green and strong during the winter. When nearly all the other flowers have perished and gone from the parterre, and winter reigns, this little plant begins to bud and bloom, and to make merry; it does not expand its delicate waxy white little blooms all at once, like its gay flaunting, but still handsome friend, *Jasminum nudiflorum*; but from November it is never without its charmingly fragrant blossoms. The sweetness of the common Honeysuckle, combined with the subdued odour of Orange blossom, is the nearest approach to a description of its fragrance that I

can give One plant of this, however, which I have trained to a south wall affords me thousands of blossoms, and I am assured by the men who make up bouquets, that it is the most useful flower they have for the purpose. This Honeysuckle is admirably adapted for training against a house, and it will do on any aspect but the north.

Belvoir, December 27.

W. I.

FRUIT CULTURE.—No. XII.

BY MR. POWELL, FROGMORE.

(Continued from page 231.)

SMALL FRUITS.

The Strawberry.—It may be truly said that among all small fruits that occupy our gardens none are so universally esteemed as the Strawberry. It is most delicious and grateful to the palate, and is considered to be the most wholesome of all fruit, and extremely useful for various domestic purposes; to the confectioner it is invaluable for preserves and ices, and I believe it is not generally known that it possesses excellent qualities for making wine, and may add that Strawberry wine is not surpassed by any other of home make; a pleasant cooling summer drink may also be made by pouring boiling water on the fruit, with the addition of a little sugar and lemon juice.

It is indeed a fortunate thing that such a useful and delicious fruit is of easy cultivation, and, farther, it does not require a great space to have a good supply of it; therefore, it is within the reach of all who possess a garden, and the cottager who has only a small plot of ground may have his Strawberry beds and fruit in abundance for his enjoyment, without much trouble or expense. The Strawberry has undergone such vast improvement of late years, and passed into so many semi-varieties through the sporting of hybrids, that its original character in the class from which it sprung is scarcely distinguishable. It is usually divided into seven classes, viz., the Pine, scarlets, black, green, Chili, Hautbois, and Alpine; but the object of these papers being principally the cultivation of fruit, all these classes are useless here. Therefore, the division will be only according to the difference in the culture of the sorts, viz., the Pine Strawberries, such as the British Queen, Filbert, Elton, and similar varieties; the scarlet Strawberries, and kindred sorts; and the Alpine, Hautbois, &c., thus including all under three heads.

The best soil for the cultivation of the Strawberry is a strong deep rich loam, but there is no soil in which some of the varieties may not be grown. Choose an open situation, and avoid planting under the shade of large trees; in such places they seldom produce much fruit. In all cases the ground must be well prepared by trenching and manuring previous to forming new plantations, and avoid, as far as circumstances will admit, planting where Strawberries grew before until, the ground has been used for other crops. When the trenching is being done, and

the subsoil is of inferior quality, which is often the case, it should not be brought to the surface, but broken up and left at the bottom of each trench, placing a good layer of manure over it previous to turning in the surface spit of the following trench; but if the soil is good to the depth of two feet it may be brought to the surface, and layers of manure placed between the soil as the work proceeds, and previous to planting the whole should be forked over and well pulverised, and, if a clayey or wet soil, great advantage will be derived from a surface dressing of lime or burnt earth; leaf-mould should be avoided, except as a top dressing for old plantations, otherwise it is liable to breed Fungi about the roots of the plants.

The Strawberry propagates itself very rapidly from runners springing annually from the parent plant, and as young plants are the best for forming new beds, it is a good practice to lay the first runners by placing stones or clots of earth on each joint, after which they will soon make strong plants, and if planted out in August they will produce a good crop of fruit the following season. Strawberries may be planted all through the autumn, or in April or May. Avoid using old plants or divisions of old stools, except it is for the purpose of increasing the stock of any choice kind.

The Pine Strawberries are the largest and the best. This class includes a large portion of the varieties; they are mostly of strong habit, and therefore require plenty of room; and if fine fruit is desired it is advisable to keep the plants clear of each other, and the runners cut away during the summer, and to attain this object it is best to plant them in rows $2\frac{1}{2}$ feet wide, and 18 inches from plant to plant. And for the convenience of working among the plants it is a good practice to lay out the Strawberry quarter in beds sufficiently wide to plant two or three rows with an alley between each, broad enough to walk to prevent treading on the beds when gathering the fruit, &c. In wet soil it is an excellent plan to *round* the beds, so as to admit of the surface water passing into the alleys during winter.

In planting, choose young plants, as before stated, and keep the ground free from weeds, and the surface moved about the plants by frequent hoeings during the spring months. As soon as the fruit is set cover the ground about the plants with fresh manure; it serves to keep the ground moist, and otherwise materially assists the growth of the plants, and prevents the fruit being splashed by drenching rains.

Immediately after the crop of fruit is gathered clear the beds from all runners and dead leaves, and fork over the surface of the soil to encourage a healthy growth in the plants before the autumn frost sets in. Plants thus treated usually remain fruitful three or four years; after that time it is better to destroy them and make new beds. Of the kinds to be recommended in this class, the following are among the best:—Sir C. Napier, Ingram's Prince of Wales, British Queen, and Carolina superba. The Filbert Pine and Elton are the best for cool situations, and both are late kinds. For light soils, or in gardens shaded by large trees, the Keens' Seedling, Ajax, and Victoria are well adapted, and will do very well grown thickly together, which is a good plan in gardens where birds are troublesome.

The scarlet is a class of Strawberries with small light red soft fruits, which are mostly used for preserving. All the varieties are very prolific and easy of cultivation. A good way to grow them is to trench a piece of ground as before advised, and plant them in beds four feet broad, and allow the young plants to cover the ground. In the spring of the year clear the beds from all loose runners and dead leaves, and put on a dressing of rotten manure. In this way immense quantities of fruit may be had, and the beds will remain in a fruitful condition for some years, by giving a top dressing every spring. The best scarlet Strawberries are the old Scarlet, American Scarlet, and Grove End.

The Alpine and wood Strawberries are perpetual bearers, and are exceedingly useful, being late in season, when other sorts are past. These require light rich soil, and will grow in shady situations. They are quite distinct from other kinds, and will reproduce themselves from seed with but trifling variation from the original. In the cultivation of this kind, it is the best method always to raise the plants from seed, which should be sown in a light bed of earth, or in a frame early in March, and as soon as the young plants are sufficiently strong, plant them out in beds where they are to remain, allowing a foot between the plants. Give plenty of water after planting if the weather is dry, and they will fruit well through the autumn months; these beds will produce good fruit for three years if they are top dressed every spring, and the early flowers removed to strengthen the plants for autumn.

The Hawthoist Strawberry is similar in habit to the above; it requires rich light soil and a cool situation, and the plants grown thickly together, that the fruit may be partially shaded by the foliage, otherwise the fruit is liable to dry up in hot weather. Myatt's Fertilised Hawthoist is the largest and best, and not so sterile as other kinds.

All Strawberries require plenty of water while the fruit is swelling, therefore copious waterings are necessary at that stage, should the weather be hot and dry; and if slugs are troublesome it is a good plan to tie up the large shoots to small sticks, which will greatly improve the colour and flavour of the fruit.

(To be continued.)

LIST OF THE BEST SIKKIM AND BHOTAN RHODODENDRONS, WITH HOW TO GROW AND TREAT THEM.

ALSO A FEW HINTS ON MAKING AMERICAN GARDENS.

ALTHOUGH the Sikkim and Bhotan Rhododendrons are the most beautiful and the greatest novelties of their class, that have been introduced for many years, still there are but few of them that will do for outdoor culture, on account of their propensity to flower too soon in early spring; and although the Bhotan kinds, such as *R. Jenkinsi*, *R. Maddeni*, *R. calophyllum*, and *R. Nuttalli*, are later to grow and bloom than the others, and were not injured by frost last winter, still, this autumn we have had 20° of frost before the plants had done growing, and the consequence is that all the young leaves

have been cut by it; but, I think, that if these sorts were crossed by some of our hardy hybrids, the result would be a very beautiful and totally distinct class of plants, and many of them probably would be scented. In Devonshire, Cornwall, South Wales, and various other parts near the sea coast, in sheltered nooks, where there is very little spring frost, I think that the Sikkim, and especially the Bhutan Rhododendrons, may be cultivated with success, and treated in every way the same as American plants. But inland, where we are subjected to severe spring frost, they must be planted out in a conservatory; or what is getting very fashionable now, a glass promenade; or any place where they can be protected in spring from the very sharp frost. The soil can be in every way the same as for American plants. The following is a list of the best that have already flowered: *R. argenteum*, magnificent foliage, covered on the underside with white down, and bearing large trusses of beautiful white flowers, well adapted for a conservatory. *R. Aucklandi*, large pale green leaves, much ribbed, and the young shoots are covered with beautiful red bracts. The flowers are large and very thick, resembling large white lilies, finely scented, and about five inches across; very fine variety. *R. Dalhousie*: Some of the varieties of this are very good, having large lemon coloured trumpet-like blooms; sweet scented, but there is nothing remarkable about the foliage. *R. Edgeworthii* is a charming species, blooming most abundantly, and the most exquisitely scented of them all, having large flowers, about 4½ inches across; and when in bloom perfumes the whole house or room that it may be in, with its delicious fragrance; foliage not very pretty. *Rhododendron Boothii* is very dwarf, in the way of *ciliatum*; rather larger leaves, and quite yellow. *R. cinabarinum* bears very curious orange tube-like flowers, unlike a *Rhododendron*, forming a pretty evergreen bush, and quite hardy. *R. fulgens* a beautiful crimson flower, but the heads of bloom are only small. *R. Falconeri* is one of the very best in point of foliage, having large leaves, twelve to fourteen inches long, and six across. The underside of the leaves are covered with ferrugineous down, which has a very curious and striking appearance. It bears large heads of beautiful primrose-coloured flowers, marked with red in the base of the tubes, each flower being beautifully cupped, with edges reflexed, in the form of a vase; remains in bloom a very long time, and is one of the very best for a conservatory. *R. Maddenii* and *R. Jenkinsii* are much alike, having very beautiful pale green shining leaves; both are free growers, and at all times fine looking plants; but when in bloom, they are particularly so, bearing quantities of Lily-like sweet-scented flowers, about the end of May; fit for any place, and amongst the most useful of all the Bhutan species. *R. Nuttallii* is the king of all Rhododendrons, bearing immense heads of bloom, with ten or eleven flowers in a truss, each flower being upwards of six inches across, tipped with rose colour; it has also very large leaves, and is altogether a magnificent plant for the conservatory. *R. Thomsonii* is a finely cupped deep crimson species, with six or eight flowers in a truss, and instead of the flowers standing erect, like other sorts, they are drooping; therefore, to see the beauty of the blossoms, the plant should be worked

on standards, after which, when in full bloom, the appearance would be very curious and beautiful. *R. Wighti* is a very handsome variety, having large heads of primrose-coloured flowers, with crimson spots in the bottom of them; scented, like Hawthorn.

Having described a number of good hybrids, and how they were produced, in a former paper, with a list of the best Indian ones, I shall now give a short paper on the cultivation of what are called American plants, viz., *Rhododendrons*, *Kalmias*, *Azaleas*, &c. The two most essential things in their cultivation are vegetable soil and plenty of moisture. As I have said many years since, they may be cultivated in any part of Great Britain, no matter what the soil may be, as an artificial one may be easily made. When I state that they live on vegetable mould and moisture, the soil must not be sour, nor the water stagnant. The soil that suits them best, and in which they grow naturally, is decomposed Moss, Sphagnum, Fern, Heath-leaves, Grass, rotten wood, &c.; but it is not at all essential that it should be this soil, as they will grow well in any other decayed vegetable matter, such as Grass, Hay, straw, chaff, no matter what, provided it be vegetable. One of my customers writes to me from Scotland, that he has taken from a mill stream decayed mould, made from oat husks, which when mixed with sand, suits them first-rate. I have seen as fine *Rhododendrons* as I could wish to see grown in cow-dung and sand, that had been put together twelve months before using, and turned over several times. If the vegetable mould is pure, it will require quite half sand to form drainage, and nothing can be better for renovating old beds, where the vegetable soil is nearly exhausted. One thing to guard against is lime, of which there should not be a particle, as they will not grow where there is any in the soil. The next thing requisite for growing them is moisture. In the north of England, the west coast of Scotland and Wales, and various other places on or near the western coast, where there is so much moisture and not much heat, it does not much matter how the beds are made, whether concave or convex, provided they are drained. But with us in the South, it is quite another thing, especially after such dry seasons as we have had these last two years. I have formerly stated that the best site for an American garden is in a bog, or where there is plenty of moisture in the subsoil, in the absence of which, the next best plan is to throw up a bank all round the American garden, which acts as a shelter, and form the beds and walks in the interior, so that all superabundant water might run into the beds; but what would be best of all, if water could be had, would be to form the necessary walks in the garden quite level, with Grass verges to them and sunk Grass banks, the beds rising from the bottom of them, from 1 to $1\frac{1}{2}$ foot above the level of the walks, forming a moat round each bed, with power to flood every bed. When the plants are coming into bloom, or after a continuance of dry weather, it is of great benefit to the plants to give them occasionally a good soaking. Such a garden would be independent of the weather, and the plants would luxuriate in an extraordinary manner on sand or gravelly soils. Not only would this be a good plan for American plants, but it would suit *Roses* equally well. Lately, I have seen a *Rose* garden

at Captain Hawksley's, at Englefield Green, made something in this way. He has thrown the soil up, forming a bank round the garden, the walks and beds being nearly level, so that all the water that runs off the banks runs into the beds; and for us in the south, we rarely ever get too much rain in the summer for Roses. A garden made after this fashion looks very beautiful, especially one with sunk Grass banks.

Bagshot, Surrey.

JNO. STANDISH.

AN ARTICLE WITHOUT A NAME.

“ But how the subject theme may gang
 Let time and chance determine;
 Perhaps it may turn out a sang,
 Perhaps turn out a sermon.”

BURNS, in a poetical epistle to a young friend, concludes the opening stanza with these lines, expressive of his doubt as to what the exact nature of the epistle may be in its complete form. Now in this predicament am I, the writer of this paper. I sit down to write it under the combined and invigorating influences of tooth-ache, swelled face, mutton broth, &c., so that I may fairly calculate on the indulgence of the reader, if my ideas, as here expressed, should appear somewhat confused and ill-arranged. And, moreover, I have been urged and incited to perpetrate a paper for this month's *Florist* by a gentleman connected with that admirable periodical, upon whose head, therefore, oh, indignant reader! pour out the vials of your wrath.

I have always had a partiality for a book or an article beginning with an anecdote, even though it should, as is often the case, have little or no connection with the subject matter of the book itself. It always creates an interest at the outset, a desideratum by no means to be despised; for a work well begun—as the old adage hath it—is half accomplished.

Well, then; one evening in the last century a number of friends were assembled at a country house in the west of England. The topics of conversation were landscape gardening and the then popular artist, Brown, who was expected on the morrow, to advise on improving the grounds and remodelling the garden. A gentleman of the party, a heretic to the Brownian philosophy, offered to wager (for wagers were by no means uncommon in drawing-rooms in those days), that he would immediately, and upon the spot, sketch a design that should, in all essential particulars, be identical with the plan which Brown would send in after his visit. The wager was laid, the designs made and compared, and so nearly did they resemble each other, that the carrying out of one would have been literally to execute the other.*

To those familiar with Brown's designs this will appear by no means improbable, for most assuredly did he copy himself *ad nauseam*, great artist as he was. His first great work, flooding the valley and appropriating the gigantic bridge at Blenheim, made him famous. If he had

* For the authority for this see “Price on the Picturesque.”

done nothing more, his name would have gone down to a late posterity as that of a bold and comprehensive genius. Walk up to the close gates of the Woodstock entrance to Blenheim, enter suddenly, and a scene at once bursts upon you unequalled of its kind in any park in Europe. Nature has of course done much, but art has, though imperceptibly, appropriated the whole. If the triumph of art is to conceal art, you have here a superlative example. During the past summer I spent a portion of two days in strolling upon the banks of this lake, and in studying the various combinations of wood, water, and undulating ground, with the palace, bridge, and monument. If I could have induced the conductors to admit some of those views as ornaments to this article I should have wanted no apology for its shortcomings in other respects.

Of course I drank from Fair Rosamond's Well, and it occurred to me as I did so, that if a few of the shillings demanded for admission to the palace and garden (a shilling each, entrance), were expended on clearing the mud from her bath, they would not be unworthily bestowed.*

I have mentioned the close entrances at Woodstock. I know not from whom these originated; but the principle of their application is a most happy one, and would by no means disgrace the genius that designed the lake. The high walls and gates effectually conceal the whole till you are face to face with the principal views. Nothing is frittered away piecemeal; the magnificent composition of wood, water, and the towers of Blenheim bursts upon the eye at once—a combination of the highest excellence.

But we must return to our anecdote for its application. Although the present great diversity of style and mode of arrangement is altogether antagonistic to any such similarity of design in our gardens, yet in the mode of planting them there is a sameness and monotony which demands some innovation on established practice. For most assuredly would the description of this particular feature of any one garden be equally applicable to nine-tenths of the gardens of Great Britain, and anyone well acquainted with our ordinary gardens may safely lay a wager that he would write a description of the mode of planting in any other without ever stepping foot in it. The following is something like what his description would be:—"The main shrubberies are composed of the usual evergreen and deciduous trees and shrubs indiscriminately mixed, great care being had that two of the same kind should never come together. Thus we have Holly, Laburnum, Bay, Gueldres Rose, Cedar, Juniper, Arbutus, Aucuba, Thorn, Azalea, Kalmia, Cornus (then repeat with variations, and *Da Capo*). In the front, or interspersed among these shrubs, which are separated from the walks with ribbons of Grass of uniform width, are various herbaceous plants and weedy annuals, struggling for light and life, overtopped by their more robust and vigorous neighbours, the attention to which greatly augments the gardener's labours, with the very satisfactory result of disfiguring the garden.

* The park of Blenheim is open free; but if time is of value in visiting the gardens, hire a boy at Woodstock, and give him a shilling to ring at the gate for half-an-hour before you wish to gain admittance there; you will find this a good investment.

“ On the lawn, too, wherever a space large enough to accommodate a tree can be found there is one stuck in, regardless alike of its ultimate development or its relation to its fellows. Thus are the breadth of lawn and general repose of the garden scenery alike destroyed, and that which is falsely supposed to be variety is really nothing more than the veriest monotony—variety, in fact, defeating itself.”

Now I do not seek to claim any originality for the remedy I propose to offer to this state of things. Often, by various writers, has the same been urged ; for which see all gardening periodicals, from the “ Gardeners’ Magazine” downwards to this paper *passim*. But it is only fair that I should offer the remedy in my own words, which I herewith proceed to do. In the first place, then—“ If you please, sir to-morrow is Christmas-day and the ‘ Florist ’ must be in type to-night ; it is now nine o’clock, and we shall be glad of the remainder of the copy.” Thus speaks the printer’s devil. The remedy proposed must therefore be given in my next. L.

(To be continued.)

HINTS ON BEDDING PLANTS.

HAVING paid a visit to some of our most celebrated gardens this autumn, and looked over the different flower beds and ribbon borders, &c., I find there is much to be learned yet as regards arrangement of colours, in order to give them a soft and pleasing appearance. I am inclined to think that there is nothing that can interest a flower gardener more than a few hints on the arrangement of bedding plants ; I therefore beg your permission for a small space to illustrate a few of the best arranged flower-beds I have seen this season. I wish in the first place to impress on the minds of those who have the management of flower-gardens, whether small or great, that the chief object to be kept in view in mixing colours should be to make them harmonise one with the other ; for if they are nicely arranged and softened down with the more delicate colours, it will add much to their general appearance and the beauty of the garden.

The first thing I shall take in hand is the *Verbena venosa*, a plant I am more than ever in favour of, having used it in so many ways and found it to stand all sorts of weather, rain, and sunshine without injury. The easy way in which it is managed makes it invaluable. I will here describe my method of propagating it. I take up all my old plants and pit them like Potatoes, and in the month of March they are taken out, the long Mint-like roots cut into lengths and planted in the beds where they are to flower during the summer. They soon make their appearance above ground, and if too thick they can easily be pulled up and planted elsewhere.

I will now give you a list of a few beds which have been very beautiful this summer, planted as follows : A large bed of Lord Raglan *Verbena* and *Verbena venosa* mixed with a broad band of Golden Chain Geranium round the outside. Another bed of Brilliant Geranium and *Verbena venosa* mixed, with a broad band of Golden Chain Geranium

round, outside. Another bed of *Alma Geranium* and *Verbena venosa*, mixed. Another of *Mangles' Geranium* and *Verbena venosa*, mixed. Another of *Flower of the Day Geranium* and *Verbena venosa*, mixed. Another of *Buchnera biflora* and *Verbena venosa*, mixed. This has a pleasing effect, and for small beds nothing can surpass it in point of beauty. Respecting the *Buchnera* it should not be planted in very rich soil, otherwise it will grow too freely, and not flower so well; but if planted in poor gravelly soil it will flower abundantly, and its little Jasmine-like white flowers, with the *Verbena venosa* planted regularly over the bed, produce a charming appearance. The next bed is equally good; the white *Alyssum* (*Koniga*) and *Verbena venosa*, mixed; those who have not seen this cannot imagine what a striking thing it is. Another bed, *Oenothera macrocarpa* and *Verbena venosa*, was very good. An easy way of propagating the *Oenothera*, in spring, is to take the young shoots when about three inches long; slip them off and plant them in the bed where they are to flower, and in the course of three weeks they will be rooted and will flower freely all the autumn. Another bed with *Lee's old scarlet* and a purplish one of the same class (variegated *Geraniums*), with *Verbena venosa*, was very good. Another of *Cineraria maritima* and *Verbena venosa*, mixed, made a greyish looking bed. A good one contained *Verbena venosa* edged with a broad band of *Mangles's Geranium*.

There is another little plant I cannot omit mentioning, the *Lobelia Erinus speciosa*, the best of all the *Lobelias* I have seen, which comes as true as from seed *Mignonette*. This spring I purchased a small packet of seed, which was sown in March. I then placed it in a gentle heat, and in the course of three or four weeks the plants were strong enough to prick out. I then collected a few shallow pans, and filled them with light sandy loam, dibbled them in thickly, and placed them on a shelf near the glass in the greenhouse, and in the month of May I had a host of little gems in full flower, anxiously waiting to be separated and planted where they were to remain during the summer. I have above 2000 plants grown from seed in great beauty at this moment (Oct. 12). I find they are much better from seed than cuttings, as I have proved them both ways; from cuttings they will flower a little sooner, but they do not continue so long in bloom in the autumn. I shall now mention a few beds planted with *Lobelia speciosa* and other plants, mixed. For small beds nothing can surpass *Golden Chain Geranium* and *Lobelia* (a bed of *Lobelia speciosa* with the *Golden Chain Geranium* dotted down the centre is very rich). Another bed, centre *Golden Chain Geranium*, next a broad band of *Lobelia speciosa*, with an edging of *Lady Plymouth Geranium*; this is very effective, as is also a bed of *Lobelia speciosa*, with the pink *Latereps variegated Geranium*, regularly mixed over the bed, with an edging of *Cerastium tomentosum*. Another good bed was made with *Mountain of Snow Geranium* and *Lobelia speciosa* mixed. Another had, centre *Lobelia speciosa*, next *Etoile de Vaise Geranium* edged with *Golden Chain*. A very pretty border may be made by planting *Cerastium tomentosum* and *Lobelia speciosa* mixed together. I beg to say that there is no plant more worthy of cultivation than this little gem

for small parterres and edgings. For small or pincushion beds, or round Rose trees, the following answer admirably: *Cerastium tomentosum* and Miss Trotter Verbena, mixed; Imperatrice Elizabeth Verbena and an edging of Lady Plymouth. Miss Trotter Verbena and an edging of Lady Plymouth Geranium is very good. Crimson Ivy-leaf Geranium edged with *Buchnera biflora*; Purple King Verbena edged with Silver Queen Geranium. Another, Harkaway and Princess Geranium, mixed, edged with Golden Chain. Another bed, Brilliant Geranium for centre, with a broad band of Mangles' Geranium and Verbena venosa mixed together. I have seen some beautiful beds of French Aster this season which looked well; the way in which they were arranged, beginning with the dark purple in the centre and gradually shading them down to the edge, ending with a broad band of white, had a good effect. A ribbon of French Asters mixed and pegged down is very beautiful.

The beds I have described above I can strongly recommend, and if you should think it would be interesting to the readers of the *Florist*, I will some day give a few hints on ribbon borders and chain beds and shaded beds of *Calceolarias*, &c., as I have seen some very good things in this way, which may interest some of your readers.

[Pray do.—Ed.]

CHARLES HATHRELL.

Stanton Rectory.

REVIEW.

The Amateur's Guide for 1859. SUTTON and SONS, Royal Berkshire Seed Establishment, Reading.

THE "Amateur's Guide," we are glad to notice, keeps steadily progressing in useful matter and classification, while the descriptions appended to the various articles offered for sale appear correct, without any attempt to exaggerate or mislead, and their selections appear to us equally judicious and sound. Of the general excellence of the seeds sent out by this firm we can certify, as well as to the punctuality and business-like manner of all their transactions. The space which we can devote to these notices precludes our saying more than recommending the work itself to our readers as a valuable assistant and guide to purchasers.

ROYAL EXOTIC NURSERY, KING'S ROAD, CHELSEA.

[SECOND NOTICE.]

To the right and left of the grand show house are the structures devoted to the most important of the Ferns. I noticed many remarkable specimens of very rare kinds. In the cool Fern-house I particularly remarked some beautiful specimens of *Odontoglossum grande* and several other Orchids. I learned that the temperature of this cooler department did not exceed 50°, and at night 45°; the

Odontoglossums were in beautiful condition and quite a mass of flower, a very convincing fact that many of the Orchids will succeed in a cooler house than is generally devoted to their culture.

In the principal Orchid houses I found everything in splendid order, and vast quantities of very recent importation. I noted some few of the most striking specimens of well-known kinds, such as *Dendrobium Dalhousieanum*, *D. aggregatum majus*, *D. albo-sanguineum*, *D. Devonianum*, *D. onosmum*, *D. Pierardi latifolium*, &c.; also quantities of *Cattleya* in all their varieties, rare and valuable. In the East Indian department are magnificent plants of *Aerides*, *Vandas*, *Phalaenopsis*, *Angraecum*, *Saccolabium*, &c. The Pitcher-house was not less interesting, and the plants were in excellent condition. Among the Pitcher-plants we observed an interesting collection of *Lycopodiums* in great variety; these, I was informed, were mostly new kinds, the introduction of the Rev. Mr. Ellis.

Among stove plants I found an endless assortment, the "foliated plants" particularly fine. Some new plants were pointed out to me; among these I particularly observed a new *Dracæna*, from New Zealand, with golden-laced foliage: this plant I believe to be a great acquisition. I also noted many new *Marantas*, and a second variety of *Sonerila margaritacea*; this variety had stronger marked leaves, and I ascertained was a more luxuriant grower—it is named *splendens*. Palms are extensively cultivated in this establishment; a lofty structure contains some of the most valuable varieties to be met with. For effective display these plants are invaluable, and have a grand appearance in lofty conservatories or houses specially devoted to them.

In the Aquarium I observed many interesting plants; a few things in flower are associated with the occupants of this department, among them some interesting species of *Bilbergia*, &c. In the hard-wooded departments everything evinces the same high order of cultivation, spirit of improvement, and novelty; the *Camellias* were in great variety, healthy, and fine in every respect. I noted many new plants in every department of this establishment, which will come before the public in due course.

The propagating houses I viewed with much interest. These have been extended, and every improvement adopted which experience has proved to be necessary.

R. G. F.

CALENDAR OF OPERATIONS.

Auriculas.—The old foliage will now continue gradually to decay, and should be removed as quickly as possible, when once the leaves turn yellow; care must be taken not to injure the plants whilst so doing. At this season the *Auricula* has nothing very interesting in its appearance, being almost devoid of foliage. Water sparingly, and do not excite the plants to cause growth before February, at which time water may be given freely.

Azaleas.—These, when in flower, are beautiful at any season, but

at no time are they so much appreciated as they are during the dull winter months, when everything out of doors wears a cold and cheerless aspect. Keep plants in flower rather warm, say a night temperature of about 50° . Retard plants for late blooming, the night temperature should not fall below 40° . Ventilate carefully whenever the state of the weather permits. Water when necessary.

Camellias.—Plants in bloom should have a temperature of from 45° to 50° by night, and from 55° to 60° by day. Give them plenty of water when they require it. Keep plants for late flowering cool. Give air freely on all favourable occasions.

Carnations and Picotees.—The soil intended to bloom these in should be kept frequently turned and exposed to the action of the weather, especially frost. The plants should be kept dry, and the dead foliage cleaned off as required.

Cinerarias.—Many of these will have thrown up their flower-stems; look over and select a few of the forwardest, and place in an intermediate house for early flowers. A few of the later plants may yet be repotted for late flowering. Look over and remove all decaying leaves, and sulphur such as are affected by mildew. Fumigating now and then is necessary, to prevent green-fly. Thin out all small shoots and leaves of specimen plants, and peg down or tie out the stronger, to throw out the middle as much as possible. Keep as near the glass as possible, to prevent their drawing. It is advisable, where large plants are required, to stop them once or twice, which will make the head of flower more dense.

Cold Frames.—After the late fine autumn everything here should be in a state of perfect rest. Give little or no water during the month, if possible; take advantage of every favourable opportunity to give all the air possible. Take care to have everything well covered up in frosty weather.

Conservatory and Show-house.—As very little fire heat has been required here up to the present time, and the weather during the autumn just passed has been everything we could wish for, plants ought now to be in good condition; they should show, not present growth, but the season's growth thoroughly matured; if, in this state we may confidently look forward for a brilliant display of bloom the coming season. Camellias, Acacias, and other plants in flower, or advancing into bloom, will require to be attended to in watering. Tulips, Hyacinths, and other bulbs, also forced shrubs, should be placed at the warmest end of the house; Heaths, Epacris, and other hard-wooded plants in flower, should be placed at the coolest end. The Amaryllis is a charming tribe, and with a little management easily got to flower at this season. The *Luculia gratissima* is a beautiful thing for the conservatory; it should be grown at the warmest end of the house. Epiphyllums, Bletias, Justicias, Euphorbias, Poinsettias, and other stove plants, should be kept at the warmest end. Introduce a good many Primulas, some Cinerarias, a few pots of Mignonette, Violet, and Lily of the Valley. Endeavour to have as many flowers as possible. Have everything staged to the best advantage, and keep every plant and place scrupulously clean and neat. If frosty weather makes much fire heat necessary, take care to keep the atmosphere

moist, not wet—the flowers will last longer than in a dry atmosphere. Maintain a temperature of about 45° by night, and from 55° to 60° by day. The watering must be regularly attended to. Ventilate daily, if possible, but avoid cold draughts.

Cucumbers.—Plants in bearing will require considerable care and skill for the next six weeks. Water occasionally with liquid manure. Keep the glass clean, so that they may receive all the light possible at this season. Pick off all the male blossoms. Maintain a moist atmosphere. Ventilate daily, if possible, but avoid cold frosty draughts. Keep a temperature of about 65° by night, and 70° to 75° by day, with an increase by sun heat. Sow for a spring crop; attend carefully to the young plants as soon as they are “up.” It is a good plan, at this season, to sow the seeds singly in pots.

Dahlias require much attention. Carefully examine the roots, particularly those from the open ground, to see they are not decaying at the crown; if they appear to be rotting downwards set them at work at once in a gentle heat, that they may not be entirely lost. Roots from those that have been grown in pots, or, as they are generally termed, pot-roots, will keep sound longer than those from the ground, and are consequently better adapted for exportation or transmission to a distance, and if not required for use, to produce cuttings for the purpose of propagation, make excellent early strong plants, by starting them in gentle heat the beginning of April.

Flower Garden.—In favourable weather forward all alterations that are in progress, so as to get them completed before the busy time of spring arrives; this is a good time to make new walks, dig turf, and plant edgings. Protect everything requiring it. Dig all beds and borders, and let the soil remain in a rough state for the frost to act on it. Sweep and roll when necessary.

Forcing Hardy Shrubs.—Ventilate freely whenever the state of the weather permits; maintain a moist atmosphere, and keep a steady bottom heat. Syringe in the forenoon on fine days. Introduce plenty of Kalmias, Rhododendrons, and Azaleas, than which there is nothing more beautiful; also some Roses, and a few plants of Lilac, Weigela, &c. Keep a temperature of about 50° by night in severe weather, and 60° by day, with an increase by sun heat.

Forcing Ground.—In severe frosty weather the linings will require to be frequently attended to, otherwise the heat soon declines in hot-beds. Make and plant fresh beds, to succeed those at present in use. Put some roots of Mint and Tarragon into a little heat, to force. Sow Mustard and Cress weekly. Make a slight hotbed and sow on it some Early Horn Carrots and Radishes.

Fruit (hardy.)—Prune and regulate fruit trees generally. Prune and nail wall-trees in favourable weather. Scrape moss, and thoroughly clean the stems and branches of standard Pear and Apple-trees. Wheel some manure, and spread it around the trees and fork it in. Plant in mild weather.

Greenhouse (hard-wooded plants.)—As the plants are for the most part at a stand-still, the only attention necessary at present is in carefully ventilating, watering, and keeping the plants safe from frost.

Every plant requiring to be trained and tied out should now be trained. Prepare now for the busy spring time: get plenty of stakes made and tied up in small bundles of different lengths; get pots cleaned, some crocks broken, and some turf chopped. (*Soft-wooded plants.*)—Ventilate freely whenever the state of the weather permits. Water carefully. Fumigate for green-fly.

Hollyhocks.—Roots potted from the ground in autumn for the purpose of producing cuttings may be excited with a little heat; it should, however, be gentle at first. When the shoots have obtained the length of about three inches, cut them off similar to the method adopted in propagating Dahlias. The cuttings should be put into thumb pots, using sandy soil, and placed in mild bottom heat. The plants struck now will flower well in September. Seeds sown in heat, and the plants grown under glass until late in May, will flower in the autumn.

Kitchen Garden.—All wheelbarrow operations should be done in frosty weather, when the ground is hard and frozen. Look carefully over Lettuce plants in frames, also over Cauliflower plants under glasses and in frames; pick off the decaying leaves, and dust with lime or soot to prevent the attacks of slugs. When the ground is in a nice working state sow some Early Beans and Peas on a warm sheltered border.

Melons.—Sow for a first crop a few seeds of some good, hardy, early sort; they are best sown singly in pots at this season. Give them a nice bottom heat; when “up,” attend carefully to the young plants.

Pansies.—Prepare the soil, and keep it dry for repotting those intended for blooming in pots, which operation should be performed towards the beginning of February, if the weather is mild. Seedlings should be looked after, pressing the soil and roots of those that may have been loosened by worms, &c. Should severe frost set in a little covering will be necessary, but grow Pansies as hardy as possible.

Peach-forcing.—The artificial heat in the early house may, after the middle of the month, be increased six or eight degrees in the day, but not quite so much at night; the night temperature should not rise above nor fall much below 50° whilst the Peach-trees are in flower. Keep the atmosphere dry whilst they are in bloom, and ventilate at all times as freely as the state of the weather permits. Start successional houses. Begin with a night temperature of 40° for the first fortnight, and then rise 5°. Syringe two or three times daily. Water inside borders and keep the atmosphere moist.

Pelargoniums.—This is a convenient and proper time for tying out the shoots of plants intended for specimens, so as to admit air and light—precaution should be taken not to allow the shoots to become drawn. Give plenty of room, and air freely on every favourable opportunity. Water carefully, giving only to those that thoroughly require it, and avoid wetting the foliage as much as possible. The temperature of the house, by night, should range about 42°. Attend to cleanliness. Watch narrowly for green-fly, and fumigate directly it is observed. Keep the soil in a good state for repotting the July plants, which should be done towards the end of the month. Let everything be done to keep the plants in a healthy and vigorous state.

Pinery.—Plants that are intended to fruit during the next summer

should have the temperature raised gradually to about from 65° to 70° by night, and 70° to 75° by day, with an increase by sun heat. Give them a good watering with tepid water. See they have a steady bottom heat of from 85° to 90° . Give some air when the state of the weather permits.

Pinks.—But little will have to be done this month. If the frost should loosen the plants, press them firmly in the ground after a thaw, and prepare rich soil for top dressing in March.

Pleasure Grounds.—Sweep and roll walks and lawns in open weather. Do everything that possibly can be done at the present time, so that routine matters may not be interfered with by-and-by. Plant trees in mild weather. Mulch well round the roots of choice and valuable specimens. Forward with all possible dispatch all alterations—such as the changing of walks, the formation of new ones, the levelling of ground, laying down of turf, &c.

Stove.—Seize spare time to look carefully over the plants for insects; plants are easily cleared of them, if well looked over at this season. Keep the night temperature as low as is consistent with the safety of the plants; in very severe frosty weather 55° will be quite high enough at night. Do not let the atmosphere get too dry from fire heat. Attend very carefully to the watering. Give air on all fine days.

Strawberries.—Though the plant is more easily managed later in the season, still, at this time of the year, a little management is required to ensure a good crop. Have the plants near the glass. Give them all the air possible, according to the state of the weather, and water carefully when necessary. Introduce a fresh batch of plants every two or three weeks.

Verbenas.—Now is an excellent time to excite into growth any kinds required to be largely increased, so as to produce young cuttings, which strike freely in sand and gentle heat, and make the best plants.

Vinery.—The early house will now be in flower, and care should be taken to keep up a steady temperature and a genial atmosphere. The night temperature should on no account fall below 60° . Look to the covering on the outside borders, and see that the heat does not decline. Attend to the stopping and tying down of the shoots. Thin the berries as soon after they are formed as possible. Start the second house; commence with a night temperature of 45° . Keep the atmosphere moist. Water inside border.



1, *Eclat* Smith
2, *Sir Colin Campbell* W. Seale

FUCHSIAS.

ECLAT (G. SMITH) AND SIR COLIN CAMPBELL (WHEELER).

(PLATE 143).

THE two beautiful varieties, Eclat and Sir Colin Campbell, of which we have this month given coloured illustrations, we need not say will be found indispensable additions to every collection of this showy and most useful class of flowers. They are in all respects first-class kinds, worthy of the raisers whose names are attached to them. Of their particular merits, however, little need be said here, as we have been favoured with the following remarks on the subject by our excellent correspondent at Deal. Of the conditions under which they are to be "let out" information will be found in our advertising pages.

ALTHOUGH precluded by want of space and means from attempting even to grow a Fuchsia, I live in a neighbourhood which is classic ground to an admirer of them; for who is there that grows even the most select collection of them that does not acknowledge that the gems of his stock have come from Mr. Banks, of Sholden. His house I can see from my back windows; and as I have access to his garden at all times, am not likely to be quite an ignoramus in such matters. These seedlings we have all talked over together, admired or questioned as the case may be, and I am afraid have often been privy to a case of "horrible infanticide," for this goes on there at a rate which would be especially pleasing to any fat old Chinese mandarin, who might deplore the too rapid increase of population; 4500 children are produced every year, and of these "dear innocents" I have seen hundreds and thousands lying out ignominiously on the dunghill to die, and for no other reason than because they were not *pretty* enough; for out of this large number only about 50 or 60 are saved; and some of these only get a short respite, poor things. They are potted up, coaxed, and petted, get quite rosy and fresh; but it is only adorning the sacrifice, for the next year sees probably between 40 and 50 doomed, as not up to the mark, and of all the vast numbers perhaps only eight or ten ever enter the market, and this never till after they have had a second year's trial; and then what a fuss they make. They have hitherto been simply 1-58, 2-58, and so on; but now comes down a nurseryman from London, and takes off these darlings, to bring them out. The names they get are quite astonishing; and as it would never do in the great world of London to come out under disadvantageous circumstances, their character goes before them; all their good points are set off to advantage, and a very delicate veil of gentle charity is thrown over their blemishes, for my friend has never either named or described one of his Fuchsias. Messrs. Henderson, Smith, and Turner have been their godfathers. And then, I grieve to state, this is not all

these do very well for a year or two, but if after that time you ask about some fair beauty that then pleased you, my friend will reply, with all the coolness of an eastern sultan, when you might ask about some fair Circassian (if ever you had a chance of seeing her), "Oh! I have discarded her; there are much prettier ones in the market." Alas! for man's constancy.

"The lovely toy so fiercely sought,
Hath lost each charm by being caught."

And so even those four very beautiful varieties figured in the "Illustrated Bouquet," will perhaps next year be nowhere. The two figured in the present number of the "Florist" are, however, not of his raising, and belong to a comparatively new section of these popular flowers—but more of them anon, for the word section induces me to say something on the history of the plant as at present cultivated.

Few flowers owe their present state of excellence so much to what are called "sports" of *lusus nature* as the Fuchsia. Some—oh! I cannot say how many years ago—a plant of one of the old kinds sported in the garden of Mr. Cripps, of Tonbridge Wells, and produced white sepals instead of red; this became the parent, as *Venus victrix*, of the many very beautiful white and flesh-coloured varieties now in existence. Again, some of the red varieties began to turn up their sepals a little, and immediately the breeders set to work to get them so thoroughly reflexed, that they should be like a Turn-cap Lily, and in this they have succeeded; though I am not sure whether the style of the old *Fuchsia gracilis* is not more elegant. After this, I believe in the hands of the late Mr. Storey, one with a white corolla made its appearance; this was judiciously seeded, and the plate shows that it is a class which is evidently improving, perhaps destined to make as great a noise as the others. And again, they have appeared with double corollas, and Mr. Wheeler, of Warminster, is evidently trying to introduce to us some that, although monstrosities, shall yet by their beauty persuade us into admiration of them; thus from the Mexican varieties alone, without crossing with *fulgens*, *corymbiflora*, *serratifolia*, or any other of the long-tubed species, we have now four distinct classes, and these, in a great measure owing to the caprices of Nature rather than to the wisdom of hybridisers. What further changes we may see it is impossible to foretell.

Their growth is not a matter of much difficulty, if space be at your command, and any one who has large conservatories to keep stocked with flowers cannot do without them, as they succeed the Geraniums, &c., and continue in bloom until the earlier flowering Chrysanthemums are advanced enough. The soil in which they delight is one composed of good strong loam, hotbed manure, well rotted, and leaf-mould in the proportion of one-half of the former and one-fourth of the two latter. They should be potted in the spring, and the endeavour should be to keep them constantly growing, and to get them into the form of a pyramid; they require for these purposes a nice moderate heat of about 50°, and syringing should be resorted to frequently. The tips may be nipped off, to encourage the lower branches to shoot out,

though some grow them "right on end." They must be repotted in from four to eight-inch and then from eight to twelve-inch pots. Judicious stopping and tying will gradually bring them to the desired form; and if you are an exhibitor, and have given them plenty of room, you may with some confidence hope to be successful; they, however, require very careful portorage, as few plants suffer more from carriage than they do. It is never worth while to grow them a third year, as you cannot get the soft and juicy wood that a two-year-old plant gives.

As to sorts, discard all that do not come up to the following marks. Sepals stout, broad, and well reflexed; corolla large, bold, round, stout and bell-shaped; flower-stalk about three inches long; the flowers abundant and of good size; foliage not large or coarse, and the colour clear and decided; if light, sepals pure white, and corolla purple; if dark, sepals brilliant glowing scarlet or crimson, and the corolla purple, violet, or blue. I think you will find the following list by no means a bad one.

Section No. 1. Crimson with dark corolla.

Prince Frederick William of Prussia (B), Loch Katrine (B), Etoile du Nord (B), Catherine Hayes, Governor-General (S), Souvenir de Chiswick (B).

Section No. 2. White with scarlet and crimson and violet corollas.

Queen of Hanover (B), Guiding Star (B), Rose of Castille (B), Fairest of the Fair (B), Maid of Kent (B), England's Glory (H).

Section No. 3. Red with double corolla.

Hendersonii (H), Reflexa plena (L), and the new Sir Colin Campbell (W).

Section No. 4. Red with white corolla.

Princess of Prussia (Sh.), Mrs. Story (S), Princess Royal (V), and the new one, Eclat (Sh).

B raised by Mr. Banks, of Sholden; *Sh* by Mr. Smith, of Hornsey; *H*, Mr. Henderson; *S*, Mr. Storey; *W*, Mr. Wheeler; *V*, Mr. Veitch.

The figures represent, 1, Eclat, raised by Mr. G. Smith, of Hornsey, and is a decided advance not only on those previously raised by the same eminent grower, but on all others of the same class, the flowers being stouter, of finer form, and the plant of good habit and free blooming; 2 is raised by Mr. Wheeler, of Warminster, is very handsome, and a decided acquisition for those who admire this class; as also is the white corolla one. Both are to be let out this spring, and will doubtless find their way to most collections of this beautiful and popular flower in the country.

Deal, Jan. 18.

D.

ON RASPBERRIES:

ADDRESSED BY MONSIEUR FERDINAND GLOEDE TO THE REV. W. F. RADCLYFFE.

DEAR SIR,—On perusing the April number of the *Florist*, I find your questions about Raspberries. I am myself very fond of this fruit, but not to the same degree as of Strawberries; nevertheless, I will communicate to you the result of my experience. The sorts I grow are Fastolf (Youell's), producing only once a year, but it is the largest and finest of all reds; Merveille des 4 saisons, red, double bearing, of very good flavour and fine colour; and Merveille des quatre saisons, white or

yellow, the finest of this colour. To these, I think, may be added the Red and White Antwerp, and a new American double bearing sort called Caterina, which I introduced last year from Boston. This produces fruit of the same size and quality as Fastolff, but which has the advantage of yielding a second crop in September.

As to the best manure for Raspberries, I think Peruvian guano to be very good, but it should be applied in a liquid state, and only about a handful in a bucket of water, well stirred twice, and then decanted. My Fastolffs are now in their fourth year upon the same place, and may with proper care continue very well for three or four more years. Others I used to plant early about six inches deep and five feet apart in rows, and as soon as the canes got strong I trained them to sticks or poles placed in the middle of two, half the number of canes to the left and half to the right, leaving the young shoots growing upright for the following year. In spring, as soon as they show their first leaves, I prune at three or four feet from the ground, according to the strength of the canes. The double-bearing sorts are to be cut down much shorter, in order to insure a good autumnal crop. All my Strawberries are planted in rows four feet apart, and one-and-a-half in the line; in this way they produce fruit in the highest degree of perfection. I let them stand three years, at the expiration of which they are destroyed, and renewed in rows in the centre of the old ones, thus continuing the plantation in the same plot.

Yours, dear Sir,

Very respectfully,

F. GLOEDE.

I gave my Raspberries *a leetle* too much Peruvian, solid; those, however, which survived the shock have borne grandly this year, and the canes are of extra strength. Monsieur F. G. has promised to come and see the Rector of Rushton. I hope he will do so.—W. F. R.

HORTICULTURAL SOCIETY.

I REMEMBER once reading in your pages a rather satirical remark, that horticulture was flourishing everywhere except at head quarters, meaning, I suppose, by what followed, Chiswick. From all I hear of that establishment at the present time I fear matters are not at all satisfactory there now. I am told one-half the men have been discharged, and that a gloomy uncertainty hangs over its paralysing action, inducing a belief that its days are numbered. As you are supposed to know something of state secrets, and if not a cabinet minister, I dare say now and then get a peep behind the scenes, and can see how the horticultural pendulum wags—or, like Mr. Wellington Guernsey, may get hold of a stray dispatch—I hope you will say something about it, because I remember how hopefully you wrote a twelve-month back of the prospects of the society. How soon it was then expected to emerge from beneath the clouds of adversity into the full blaze of favour and patronage, and what a prosperous career of usefulness you marked out for it. Now, Mr. Editor, have your predictions

been fulfilled or not? Pray tell us, or let me answer the question by asking whether the Society has not sunk deeper into difficulties, and that its means of extrication are less. I fear, moreover, there is but little chance of another "stimulant" in the shape of a three thousand pound contribution to afford it temporary relief. I am an F.H.S., and hear nothing about the position of the Society, but what is sad to repeat and to reflect on. I should despair of horticultural societies altogether did I not know many local institutions prosperous; and, above all, the Pomological progresses rapidly, and appears destined to do a large amount of good at little cost or noise—no small proof of its usefulness.

Herts.

F. H. S.

[We publish our correspondent's rather inquisitorial letter, and in reply merely remind him that we do not consider ourselves as exponents of the Horticultural Society, which, however, has our best wishes at all times. We certainly, as the writer informs us, wrote hopefully of the Society some time ago, nor do we now despair of seeing it become a great and useful institution. Chiswick may have lost its *prestige*, and its distance from London may make it a drawback rather than a help to the Society's operations; and, if so, the sooner it is given up and a new site near town selected the better. Whatever may become of Chiswick, our correspondent need be under no fear that horticulture or the Horticultural Society will decline. Let the Fellows of the Society hold together, and we doubt not the Council will suggest some plan to reinstate it on a basis both popular and useful. The Pomological Society progresses certainly, and answers every expectation formed of it by its promoters. This society, as our correspondents may perhaps remember, was first ushered into the world through our pages, and we therefore feel personally interested in its welfare.—ED. *Florist*.]

FERN CLASSIFICATION.—No. IV.

THAT group of *Polypodiaceæ* which forms the tribe *Polypodineæ*, and which, as already intimated, comprises the greater number of the species of known Ferns, requires to be broken up into several minor groups, in order to facilitate the classification of the genera. We adopt twenty-three of these lesser divisions, called sections, for the group now under notice.

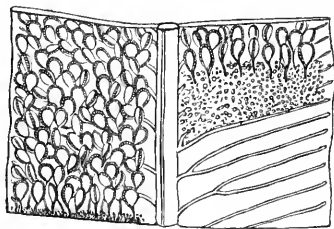
The first broad distinctions are founded upon the nature of the receptacles. In the greater number of the species they are local and circumscribed, definite in form, and confined to determinate parts of the veins, giving rise to the punctiform oblong linear or reticulated forms of sori already referred to. Then comes a small group in which the receptacles are compound, always occupying a crowded mass of reticulated veinlets, from which the spore-cases become effuse, usually forming one or more large shapeless masses or patches, generally placed towards the apex of the frond (sometimes entirely occupying distinct fertile lobes), in some few instances, however, much smaller in size

and more numerous as well as definite in form and arrangement. The characteristics of this group are sometimes simulated by species referred to the former, in which the definite reticulate sori happen to be crowded, and when mature effused, so as to appear to form one mass; but in such cases the removal of the spore-cases will generally reveal the distinct nature of the receptacles. The remaining group consists of Ferns in which the spore-cases occupy the entire under surface (sometimes both upper and under surface) of the frond, growing both from the veins and the spaces intervening, in which cases the receptacles are said to be universal. In this group it is usual for a portion of the fronds to be spore-bearing, and these more or less contracted, while the remainder are entirely destitute of spore-cases, and not contracted. In a few kinds it is the upper parts of the frond instead of distinct fronds which are spore bearing, while the lower parts are sterile. When this distinct mode of growth occurs, namely, the one portion of the fronds spore-bearing and contracted, and the other not so, the fronds are said to be *dimorphous*, that is to say, of two forms, and the one form is referred to as the *sterile* the other as the *fertile* frond. This distinction in the mode of growth, which is more or less marked throughout the whole of the group now under notice, occurs here and there among the Ferns referred to the other divisions.

The foregoing remarks will have indicated the three primary divisions of this rather unwieldy group, and our further enquiries will have been thus facilitated.

Those Ferns, then, which have the receptacles universal, form the first division or section, the *Acrosticheæ*. They are placed first in the series, because, having the whole surface of their fertile fronds spore-bearing, both veins and parenchyma being alike affected, they are regarded as those in which the fertile principle is most thoroughly developed. Those genera in which the receptacles form a compound mass of crowded reticulations (so much crowded, indeed, that in the fertile portions there is hardly any vacant space between the delicate veinlets of which they are formed), and bearing large effused masses of spore-cases, form a second distinct section, the *Platysericeæ*. These two groups may be dismissed with a few further particulars.

The *Acrosticheæ* comprise fourteen genera, whose connecting character is, of course, the universal receptacles. They range conveniently in

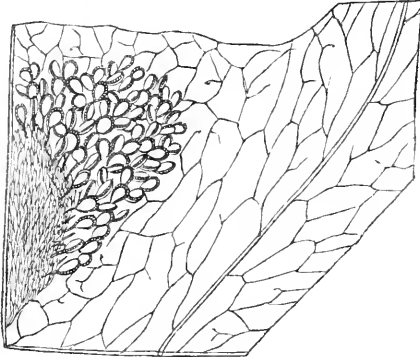


21. ACROSTICHEÆ: *Elaphoglossum conforme*.

two divisions, the first having the fronds, that is, the fertile ones, wholly fructiferous; and the second having the upper pinnæ wholly fertile. The first division includes *Polybotrya*, *Rhipidopteris*, *Elaphoglossum*, and *Lomariopsis*, with free veins; *Stenochlæna* and *Offersia* with combined veins; *Soromanes*, with connivent veins; and *Neurocallis*, *Hymenodium*, *Stenosemia*, *Pæcilopteris*, and *Anapausia*, with the veins reticulated. The second division consists of *Acrostichum* and *Photinopteris*, both

of which have reticulated veins. Such of these genera as exist in gardens will be more fully described when we come to treat of the species in cultivation.

The *Platyneriæ* consist of three genera, of which the first and typical one has generally been associated with the *Acrosticheæ*. It is, however, materially different, and we have proposed to separate it. The other genera have, in their aspect and general habit, some affinity the former of them with the *Polypodiæ* and the latter with the *Acrosticheæ*, but they are brought here on account of the compound



§2. PLATYNERIÆ: *Platynerium Stemmaria*.

condition of their receptacles. The three genera are separated by their sori, which in *Platynerium* are few, very large, and amorphous or shapeless—that is, of no definite or constant form; in *Dryostachyum* much smaller and more numerous, and quadrate in outline; and in *Jenkinsia* forming linear submarginal patches along each side of the costa.

We may sum up the foregoing in a brief contrasted form, thus:—

- | | | |
|------|--|--------------------------|
| [A]. | Receptacles universal | §1. <i>Acrosticheæ</i> . |
| [B]. | Receptacles compound effuse crowded indefinite | §2. <i>Platyneriæ</i> . |
| [C]. | Receptacles local determinate definite (see forward). | |

The remaining larger portion of the *Polypodiæ*, in which the receptacle is local, circumscribed, confined to determinate parts of the veins, and of definite form, have still to be subdivided. The most convenient characters for this purpose seem to be those derived from the form and position of the sorus in relation to the vein on which it is placed. There is of course a considerable amount of variety in respect to the form and position of the sori to be observed among the plants which we have now under consideration, but they may with tolerable exactitude be reduced under three heads. These it will be convenient to state in a distinct and brief form, so as to admit of ready comparison, and the actual structure intended should be well understood, which it may be by the careful study of a few common species as illustrations. We have then—

Receptacles local determinate definite—

- (1). Sori transverse to the veins, parallel or sub-parallel with the costa or margin, usually elongated.
- (2). Sori parallel with the veins, oblique to the costa, more or less elongated, sometimes reticulated.
- (3). Sori punctiform, rarely suboblong, or by confluence elongated.

In the first group (1), with sori transverse to the veins, parallel with the costa or margin, it is to be remarked, that in the few cases where the fronds have no veins, the plants may be recognised as belonging here, by the circumstance of the sori being parallel with the midrib. The sorus is usually linear or considerably elongated, but it is occasionally oblong or lunately curved, or, in one or two groups, sometimes punctiform. In the first of these exceptional conditions, the fact of its having the same general direction as the costa or margin indicates at once the group to which it belongs; and in the second, the sori being marginal with a transverse indusium, there is no difficulty in ascertaining that they belong to the type of structure in which the sorus is transverse to the veins.

Irrespective of these somewhat aberrant and exceptional forms, which, however, rightly viewed, find their place in the series without difficulty, the group now before us is again divided into three parts, by means of secondary characters derived from the receptacles. These characters are found in the form of the receptacle, which is linear, oblong, transversely-arcuate, or rarely punctiform, or in its position with respect to the midrib or margin. In this way we mark out three groups of moderate extent, as follows:—

Sori transverse to the veins, &c.

- (a) Receptacles linear or oblong, costal or subcostal (often at the same time submarginal by the contraction of the frond).
- (b). Rereceptacles linear (sometimes oblong or punctiform) marginal or submarginal (rarely medial), always remote from the costa.
- (c). Receptacles short arcuately-transverse on the venules, subparallel with the costa or margin.

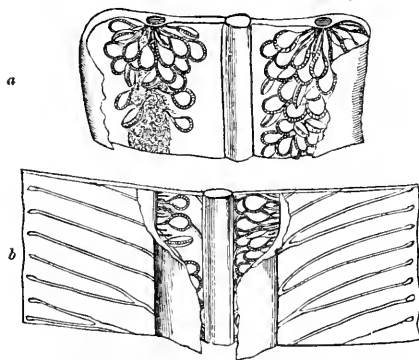
The first group (a) with linear costal receptacles embraces two sections, as follows:—

- (a). Receptacles costal, &c.

Sori indusiate linear superficial §3. *Lomariææ*.

Sori nonindusiate, linear or oblong, superficial or immersed §4. *Pleurogrammeæ*.

The *Lomariææ* consist of four genera, whose common character is



§3. LOMARIÆÆ: (a) *Lomaria callosa*; (b) *Blechnum orientale*.

the continuous line of spore-cases situated near to the costa, and furnished with an indusium. Of these *Lomaria* and *Blechnum* have the veins free; and *Salpichlena* and *Sadleria* have them combined. Neither of the latter genera are in cultivation, but they are interesting, the first as being scandent, and the second arborescent.

The *Pleurogrammeæ* differ obviously from the *Lomariææ* in wanting an indusium, while they agree with them in the costal line of spore-cases.

The number of genera referred here is six:—*Monogramma*, a minute plant, in which there are no veins beyond the costa; *Diclidopteris*, in which there is only a costa and the receptacle distinct from but parallel with it; *Pleurogramma* and *Xiphopteris* with free veins from a central costa; and *Hymenolepis* and *Gymnopteris*, in which the veins are compound reticulated.

The second group (*b*), with linear marginal receptacles, embraces a larger number of sections, which may be set forth thus:—

(*b*). Receptacles marginal, &c.

Sori non-indusiate, linear, mostly immersed in a groove or furrow of the frond, sometimes superficial—

- submarginal, usually occupying a shallow dorsal furrow (rarely oblong) §5. *Tænitidææ*.
- marginal, always occupying an extrorse-marginal furrow §6. *Vittariææ*.

Sori indusiate, superficial, linear, oblong, or rotundate—

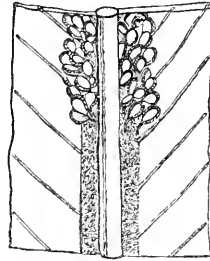
Indusium bursting along the outer edge §7. *Lindsæææ*.

Indusium bursting along the inner edge—

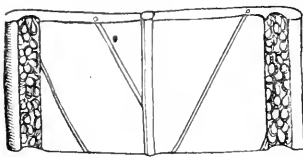
Receptacles resupinate, *i.e.*, the spore-cases attached to the under surface of the indusium itself §8. *Adiantæææ*.

Receptacles normal, *i.e.*, the spore-cases attached to the frond—

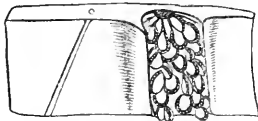
- punctiform (transverse-marginal) §9. *Cheilantheæææ*.
- linear (transverse marginal) §10. *Pteridæææ*.



§4. *PLEUROGRAMMÆÆ*:
Pleurogramma linearis.



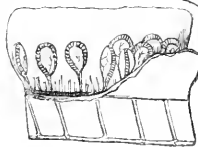
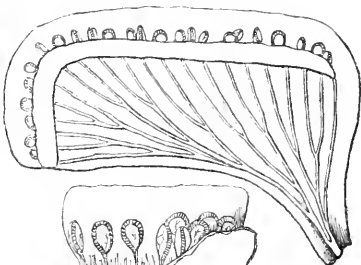
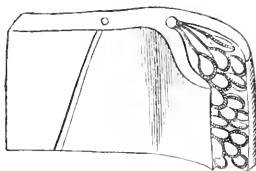
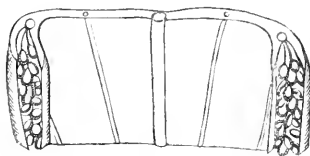
§5. *TÆNITIDÆÆÆ*: *Tæniopsis lineata*.



The *Tænitidæææ*, remarkable for the furrow in which the submarginal spore-cases are in almost all cases inserted, embrace several genera. In *Scoliosorus* and *Holcosorus* the veins are reduced to an obscure costa; in *Tænitis*, *Schizolepton*, and *Loma-gramma*, they are uniform-reticulated; in *Drymoglossum*, *Diblemma*, and *Paragramma* they are compound-reticulated; in *Dicranoglossum* the veins form simple arcs, each one meeting the next, along both sides of the costa; and in *Tæniopsis* the veins are free, except where combined by the marginal receptacle.

The *Vittariæææ* very much resemble the genus *Tæniopsis* in the last section, only in *Tæniopsis* the sori mostly occupy a furrow (they are usually immersed, but not always) along the back of the grass-like frond near each margin; while in the present section, consisting only of *Vittaria*, the furrow is along the extreme edge, its opening being turned outwards, so that the spore-cases seem to lie in the split margin.

The *Lindsææ* are an elegant group, with the sori long, continuous, (rarely short and broken up), placed either quite at or very near to the margin of the frond, and covered by an indusium which opens along its

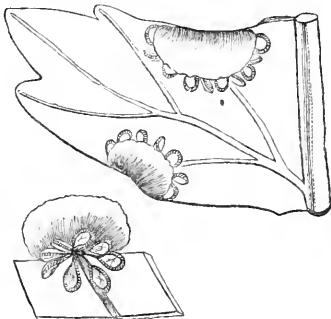
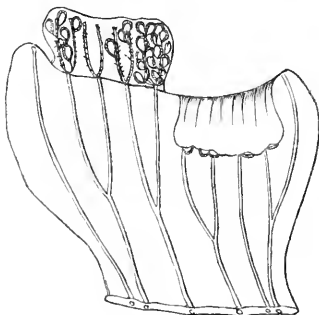


26. VITTARIÆ: *Vittaria zosteræfolia*.

57. LINDSÆÆ: *Lindsæa trapeziformis*.

outer and remains attached by its inner edge. They comprise three genera:—*Lindsæa* with free veins; and *Schizoloma* and *Dictyoxiphium* with reticulated veins; the latter having simple fronds.

The *Adiantææ* a good deal resemble the *Lindsææ*, but they have a very distinct structure. The chief peculiarity consists in the indusium, which is turned inwards from the margin, and though looking like that of *Cheilanthes* or *Pteris*, is not, as in them, a simple membrane covering the sori, but the spore-cases are actually inserted on it, so that if the indusium is turned up, the spore-cases are turned over with it. These spore-cases are inserted in short parallel lines across the



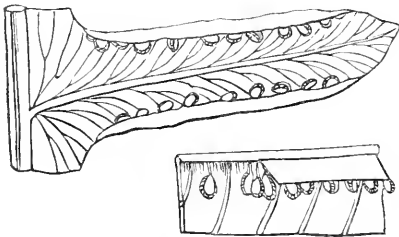
28. ADIANTEÆ: *Adiantum Capillus veneris*.

29. CHEILANTHÆÆ: *Hypolepis anthriscifolia*.

indusium (which is sometimes nearly round, sometimes quite linear) and might perhaps be placed in the next group (2), in company with the *Platylomeæ*. In this section are *Adiantum*, with free veins, and *Hewardia*, with the veins reticulated.

The *Cheilantheæ*, as a group, come very near the *Pterideæ*, but we think they are well kept asunder, if only to facilitate the means of separating some species of the typical genera, which have sometimes a

resemblance to one sometimes to the other, so that they get referred to either. The point which distinguishes the *Cheilanthes* is the punctiform receptacle, and this seldom fails; while the common continuous



§210. PTERIDEE: *Pteris repandula*.

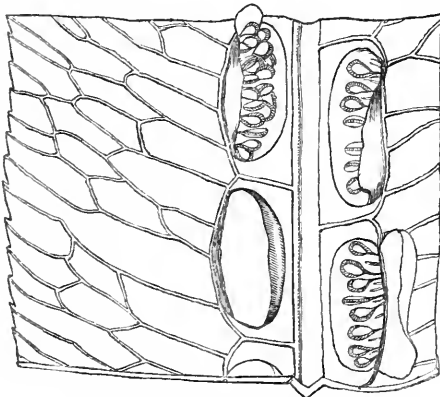
indusium which in some cases covers several of these punctiform sori, from its similarity to *Pteris*, often misleads. The group comprises five genera: *Adiantopsis*, *Cheilanthes*, *Hypolepis*, and *Cassebeera*, with sori terminal on the veins, the latter genus having them more within the margin than the rest; and *Plecosorus*, with sori medial on the veins, placed towards the centre of the lobes.

The *Pteridee* are separated from the foregoing by having their receptacles linear, continuous and marginal, that is, transverse to the veins. They comprise eight genera, namely:—*Onychium*, *Ochropteris*, *Haplopteris*, and *Pteris*, with free veins; *Campteria*, with combined transverse-costal veins; and *Lonchitis*, *Litobrochia*, and *Amphiblestra*, in which the veins are reticulated,—in the last compound-reticulated.

The third group (*c*), with the receptacles arcuately-transverse on the venules, falls into this place, on account of its sori, though short compared with most of the preceding groups, and curved, being yet parallel in its general direction with the midrib and margin. It gives rise to two sections, as follows:—

(*c*). Receptacles short, arcuately transverse, costal or medial—

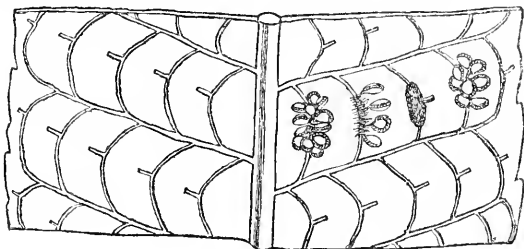
- | | |
|------------------------------|-------------------|
| Sori indusiate | §11. Woodwardieæ. |
| Sori non-indusiate | §12. Meniscieæ. |



§11. WOODWARDIEÆ: *Woodwardia radicans*.

The *Woodwardiaceæ* are a small group, consisting of the single genus *Woodwardia*, which latter, however, includes the plants sometimes placed under *Doodia*. It produces one row (sometimes more) of short or shortish lunate sori near the costa, the sori having an indusium, which is either nearly flat, or arched.

The *Menisciæ* differ in having their short lunately-curved sori naked, that is, without any indusia. To this section we refer three genera:—*Brainea*, which has combined } transverse-costal veins ;
Meniscium, which has the venules uniting in transverse subangular



§12. MENISCIÆ: *Meniscium dentatum*.

arcs between the pinnate veins ; and *Dryomenis*, in which the veins are reticulated. Of these *Brainea* has doubtless a general affinity with the *Woodwardiaceæ*, as *Dryomenis* has with the *Polypodiæ*, but they are brought here by their short naked transverse sori.

The remaining groups of *Polypodineæ* must be reserved for another paper.

THOMAS MOORE.

Chelsea.

ON PRUNING.

PRUNING is the art of controlling or appropriating the energies of a plant for a specific purpose ; it may be for the production of flowers and fruit, or of wood. There is no art in the whole practice of gardening which requires so much knowledge and tact ; for while the operator should be an adept in the use of the knife, he should foresee the effects which each cut will produce, and see the tree as it will be after his operations are completed. Every labourer who sports a blue apron, and goes a "jobbing," would feel his dignity assailed if he were told that he did not understand pruning, and had not pruned Mr. A.'s trees as they should be. But I think no one can be *au fait* in this science who has not learned something of elementary physiology, and who has not also had a good share of practice to acquire tact and skill. Vast mistakes are made for want of attention to summer pruning (I mean that effected by finger and thumb). In the case of fruit trees, if a strong shoot is allowed to run without stopping, it will soon become a gourmand, and require ultimate removal with the knife ; while, if stopped, it will result in three or four moderate fruitful shoots, which leave nothing for the knife to do ; and it is amazing how much labour proper

attention to this "preventive pruning" saves. The late celebrated gardener, Mr. McEwen, told me that he pruned his Peach trees scarcely at all in winter, making his arrangement of the wood in the summer—most judicious practice this, and worthy of all imitation.

In the case of cutting coverts, it is different, the object being to ensure luxuriant and quick growth, therefore, the plant is cut down to the ground; from its collar issues a thick circle of shoots, which choke one another, a few only of the strongest getting away. I have often thought it would be judicious to thin these shoots as soon as formed, and gain in the size of those produced. Trees which are planted for effect should receive little attention from the hand of the pruner, but after getting a sufficient bole, may be left to Nature. Trees in the interior of a wood may be denuded of branches, straight and poly, in fact, fine timber; but those on the exterior should develop their natural features and habits; this is too little appreciated. Root pruning is a most serviceable operation; it should be performed in early autumn, so as to give the trees the chance of forming fresh spongioles before the spring. A circle should be dug round the tree, all the roots selected, and portions only of the strongest removed, leaving the small fibres uncut. A few general rules may be laid down, but much must be left to the experience of the operator; he only who has grown up with plants, and strengthened with their strength, can adapt his practice to their ever varying requirements, and assign to every case its remedy.

January 20.

HENRY BAILEY.

THE NEW PLANTS OF 1858.

(Continued from page 13.)

The additions to this family have not been very numerous, nor of great importance. The Vandas take, of course, the highest place. The fine Indian *V. Cathcarti* has, it would seem, at length reached Europe in a living state. *V. gigantea* does not equal the expectations formed of it; but *V. Lowii* proves a desirable, though second-rate, species. The variety of *Dendrobium Falconeri* is a very ornamental plant.

BOLBOPHYLLUM NEILGHERRENSE. (Bot. Mag. t. 5050.) An insignificant epiphytal Orchid; flowers green and brown. Neilgherries. *Kew Botanic Garden.*

CALANTHE DOMINII. (Bot. Mag. t. 5042.) A highly curious and interesting terrestrial Orchid, a hybrid between *C. furcata* and *C. Masuca*, and having much of the habit and form of the former combined with the purple colours of the latter. A garden hybrid. *Messrs. Veitch & Son.*

CATTELEYA AGLANDIÆ. (Bot. Mag. t. 5039.) A fine figure of this beautiful plant is here given.

CATTELEYA GRANULOSA. (Bot. Mag. t. 5048.) An excellent figure of a fine old Orchid, from specimens grown at the *Liverpool Botanic Garden.*

CATTELEYA LUTEOLA. (Bot. Mag. t. 5032.) A dwarf interesting epiphytal Orchid, with elliptical leaves on short compressed pseudo-bulbs, and comparatively large primrose-coloured flowers, four or five together. Brazil. *Messrs. Rollisson.*

CELOGYNE CINNAMOMEA. (*Gard. Chron.* 1858, 37.) A stove epiphyte, with two-leaved pseudo-bulbs, and 6-8 flowered drooping racemes of pale yellowish-green flowers; the sides of the lip stained with cinnamon colour. Probably a native of India. *The Lord Bishop of Winchester.*

CÆLOGYNE PANDURATA. (Bot. Mag. t. 5084.) A fine and remarkable epiphytal stove Orchid. It has large pseudo-bulbs, broad ribbed leaves, and long pendent racemes of large flowers, which are pale yellowish green; the base of the panduriform lip warted and marked with broad black veins and stains. Borneo. *T. Butler, Esq.*

CÆLOGYNE SCHILLERIANA. (Bot. Mag. t. 5072.) A pretty little epiphytal Orchid of the Pleione group of Cælogyne. The pseudo-bulbs are small bottle-shaped, the leaves two, the flowers large tawny yellow, the lip broad, somewhat lyre-shaped, wavy and toothed, and prettily blotched with brown irregular markings. Moulmein. *Messrs. Veitch & Son.*

DENDROBIUM CHRYSOTOXUM. (Bot. Mag. t. 5053.) A charming epiphytal Orchid, bearing splendid racemes of golden yellow flowers, having the lip beautifully fringed. It has been some time in cultivation. India.

DENDROBIUM FALCONERI, var. OBTUSUM. (Bot. Mag. t. 5058.) A beautiful epiphytal species with long pendent stems, bearing in clusters from their joints, the charming flowers, of which the sepals are blush, the petals creamy, both tipped with purple, the lip rich yellow, pubescent, with a deep red spot at the base and a small purple one at the tip. Khasya. *Messrs. Jackson and Son.*

DENDROBIUM PRIMULINUM. (*Gard. Chron.* 1858, 400.) This plant, figured in the Bot. Mag. (t. 5003) as *D. nobile*, v. *pallidiflorum*, has since been distinguished under the above name. It is a very fine stove epiphyte, the flowers white tipped with pink, smelling like Cowslips. The stems are pendulous, as in *D. cucullatum*. India. *Messrs. Parker & Williams.*

DENDROBIUM PULCHELLUM. (Bot. Mag. t. 5037.) The fine old epiphytal Orchid cultivated under the above name, is here figured. The name, it is intimated, does not properly belong to it, but no other is substituted.

EPIPHORA PUBESCENS. (*Gard. Chron.* 1858, 437.) A stove epiphytal Orchid, having small tapering pseudo-bulbs in masses; the flowers are golden yellow richly striped with crimson, two or three together on a scape five or six inches high; their fragrance equals that of the sweetest Lilies-of-the-Valley. Madagascar, Algoa Bay, &c. *Rev. Mr. Ellis.*

KEFERSTENIA ORAMINEA. (Bot. Mag. t. 5046.) Also *Zygopetalum gramineum* and *Huntleya fimbriata*. A curious dwarf Orchid, without pseudo-bulbs, having longish equitant leaves and radical peduncles, bearing the yellow-green spotted moderate-sized flowers, of which the lip is edged with rose and spotted with rich brown, on a yellowish ground. Caraccas. *Kew Botanic Garden.*

OBERONIA ACAULIS. (Bot. Mag. t. 5056.) A singular epiphytal stove Orchid, not pseudo-bulbous, with ensiform leaves, and a long cylindrical crowded raceme of minute orange coloured flowers. India. *Kew Botanic Garden.*

ORCHIS FOLIOSA. (Bot. Mag. t. 5074.) A fine terrestrial Orchid, with palmated tubers, broad oblong lanceolate leaves, and a long spike of spotted purple flowers terminating the tallish erect stem. Madeira. *Kew Botanic Garden.*

PILUMNA FRAGRANS. (Bot. Mag. t. 5035.) This is the *Trichopilia albida* of gardens. An epiphytal Orchid, whose flowers have narrow greenish sepals and petals and a broad white lip, and are deliciously scented; it has long subterete pseudo-bulbs and pendent flower racemes. Guatemala. *Kew Botanic Garden.*

POGONIA DISCOLOR and **P. NERVILIA.** Two charming little plants of the Orchidaceous family, bearing considerable resemblance to the well-known species of *Anæctochilus*. Java. *M. Willinck.*

VANDA CATHCARTI. (*Flore des Serres*, t. 1251.) A beautiful epiphytal stove Orchid with tall leafy stems, bearing linear-oblong leaves rounded and obliquely bilobed at the ends, and lax few-flowered racemes of large flowers, the sepals and petals nearly equal, white behind, rich cinnamon brown in front transversely lined with deeper brown; the lip is very curiously formed, its larger middle lobe having an elevated border, of which the recurved rim is yellow. India. *French Gardens.*

VANDA GIGANTEA. (*Gard Chron.* 1858, 312.) A fine stove epiphytal Orchid, called *V. Lindleyana* by Griffith. The flowers large, nearly three inches in diameter, leathery, opening cream colour, changing to deep yellow with a reddish brown stain at the back, and irregular roundish blotches of cinnamon colour on the inner face. India, Burmah. *R. Warner, Esq.*

VANDA JENKINSI. A stove epiphytal Orchid. The small scentless flowers are of little beauty. Assam. *Messrs. Jackson & Son.*

VANDA LOWII. (*Gard. Chron.* 1858, 175.) A fine stove epiphyte producing a long drooping spike nearly three feet long, set with large blossoms, yellow mottled with brown. Borneo. The native plants are said to have spikes ten to twelve feet long. *Messrs. Veitch & Son.*

STOVE PLANTS.

Here we have a second species of Lattice-plant or Lace-leaf, in the curious and elegant *Ouvirandra Berneriana*, whose strap shaped perforated leaves are extremely elegant, as seen floating in pure water. *Nepenthes villosa* is one of the finest Pitcher-plants yet known, and is very remarkable for the form and colour of the rim to its pitchers. The *Gesneras* are all valuable additions for decorative purposes; while *Cyanophyllum magnificum* and the new *Caladiums* are charming additions to the now favourite class of fine-foliaged plants.

ÆSCHYNANTHUS TRICOLOR. (*Bot. Mag.* t. 5031.) A beautiful Cyrtandraceous stove shrub, with slender branches, adapted for suspending; it has short ovate leaves, and small umbels of flowers either axillary or terminal, richly coloured, being scarlet with broad distinct longitudinal stripes of yellow and black. Borneo. *Messrs. Low & Son.*

BEGONIA WAGENERIANA. (*Bot. Mag.* t. 5047.) A small-flowered narrow-petalled species of the sub-shrubby section, quite distinct from one figured a few months previously under the same name, in the same work. Venezuela. *Kew Botanic Garden.*

BILLBERGIA LIBONIANA. (*Bot. Mag.* t. 5090.) A handsome stove Bromeliaceous perennial, with Pine-apple-like leaves and loose erect spikes of flowers, which are two inches long—the lower half, or sepals, rich orange-scarlet—the upper half, or projecting petals, violet-blue. Brazil. *Kew Botanic Garden.*

<p>CALADIUM CANTRINI, CALADIUM ARGYRITES, CALADIUM ARGYRSPILUM, CALADIUM NEWMANNI, CALADIUM HOULETTI, CALADIUM VIOACEUM.</p>	<p>Fine additions to stove variegated leaved plants, especially the three first. Like most of the species, they are extremely handsome. One, apparently quite new, has triangular, or, rather, arrow-shaped leaves, ten inches long, seven inches broad at the base, with 20-30 well defined crimson spots, extremely brilliant and effective, spread over their surface. Another is similar, but more obtuse in the form of the leaves. On one small kind, a perfect gem, the leaves are three inches long and one and a half inch wide, their surface handsomely mottled with white. In another, the leaves are nearly heart-shaped, deep green, with white spots set at regular intervals. In another, they are arrow-shaped, seven and a half inches long, prettily blotched with flesh colour. (<i>Gard. Chron.</i> 1858, 314.) Amazon River. <i>M. Chantin. Messrs. Low & Son.</i></p>
---	--

CORDIA IPONGÆFLORA. (*Bot. Mag.* t. 5027.) A fine stove shrub, or small tree of the Boraginaceous family, having obovate-lanceolate leaves a foot or more in length, and lax terminal panicles of large white *Convolvulus*-like flowers. Native country unknown; probably West Indian. *Kew Botanic Garden.*

CYANOPHYLLUM MAGNIFICUM. A Melastomaceous plant, splendid as regards its foliage. The leaves are two feet long, deep velvety green, with ivory-like veins above and tinted bluish purple beneath. Tropical America. *M. Linden.*

FAGRÆA MORINDÆFOLIA. A fine stove plant, with large *Magnolia*-like leaves and terminal spikes of trumpet-shaped rosy flowers, having a white mouth. Java. *Messrs. Rolliison.*

GESNERA CINNABARINA. (*Bot. Mag.* t. 5036.) This fine stove tuberous perennial has been figured again as above quoted. Its richly variegated leaves and brilliant vermilion flowers render it one of the most ornamental of its family. Its habit is that of *G. zebrina*, and like that it belongs to the group *Nægelia*. It was first published in the *Illustrated Bouquet* (t. 6) of Messrs. E. G. Henderson.

GESNERA DONKELAARI (*Bot. Mag.* t. 5070.) A beautiful dwarf stove plant,

one of the most ornamental in cultivation. The leaves velvety, orbicular-cordate, purple beneath, the terminal panicle bearing drooping tubular flowers with a spreading limb of a peculiar tint of rosy red, and having a yellow throat. A Belgian hybrid.

GESNERA MULTIFLORA. (Bot. Mag. t. 5083.) Also known as *Nægelia multiflora* and *Achimenes amabilis*. It is a fine stove perennial, with broad hairy leaves, and long pyramidal racemes of white drooping flowers, having a curved tube and expanded limb. Mexico. *Kew Botanic Garden*.

GUSTAVIA INSIGNIS. (Bot. Mag. t. 5069.) A fine tropical tree or large shrub, producing dark green obovate-lanceolate leaves of large size, and very large spreading six-petalled concave flowers 5-6 inches broad, creamy blush within, pale rose without, with a beautifully incurved thick ring of purple and yellow stamens. Tropical America. *Kew Botanic Garden*.

INGA MACROPHYLLA. (Bot. Mag. t. 5075.) A stove shrub, with curious winged pinnate leaves, and axillary balls of yellow filaments forming silky heads on long stalks. Tropical America. *Kew Botanic Garden*.

MONSTERA ADANSONII. (Bot. Mag. t. 5086.) Known as *Dracontium pertusum*. A fine scrambling aroides plant, with very large leaves, remarkable from their being perforated with large linear or oblong openings. The great boat-shaped spathes are cream coloured, the spadix white. Tropical America. *Kew Botanic Garden*.

NEPENTHES VILLOSA. (Bot. Mag., t. 5080.) One of the finest species of this interesting group. It is very hairy, especially when young. The pitcher is cylindrical, nine inches in circumference, somewhat ventricose, rather suddenly tapering into the prolonged costa; they are furnished down the front with two membranaceous wings cut at the edges into long fringe-like segments often bifid or trifid; these wings are purplish brown, and the pitcher is spotted with the same colour. The mouth or rim is oblique, much extended upwards, broad, orange-purple, and beautifully plaited on the surface. The lid is green, margined and blotched with red. Borneo. *Messrs. Veitch & Son*.

NIPHÆA ALBO-LINEATA, var. *RETICULATA.* (Bot. Mag. t. 5043.) An erect Gesneraceous stove herb, with the ovate leaves white-veined, several pale lilac flowers springing from their axils. South America. *Kew Botanic Garden*.

OSBECKIA ASPERA. (Bot. Mag., t. 5085.) A rather handsome stove sub-shrub, with oval acute ribbed leaves, and large rose purple flowers. India and Ceylon. *Kew Botanic Garden*.

OUVIRANDRA BERNERIANA. (Bot. Mag. t. 5076.) A new kind of Lattice plant, in which the open-work leaves are longer and narrower than in *O. fenestralis*, being almost strap shaped; the small pinkish flower grows in 3-5 spikes clustered at the top of the common stalk. Madagascar. *Messrs. Jackson & Son*.

PHILODENDRON ERUBESCENS. (Bot. Mag. t. 5071.) A scandent aroides stove plant bearing large sagittately-cordate leaves, and dark purple boat-shaped spathes, crimson within, surrounding the white columnar spadices. Like the rest of the family this is very ornamental in a collection where the grouping of foliage is desired. Probably a native of South America. *Kew Botanic Garden*.

PLCOSTEMMA LASIANTHUM. (Bot. Mag. t. 5081.) Also *Hoya lasiantha*. A curious climbing stove shrub, with very large ovate leaves and pendent umbels of orange yellow flowers, furnished with a hairy globular cushion-like mass (the disc) beneath the staminal crown. Also recently figured in our own plate 147. Borneo. *Messrs. Low & Son*.

POLYGALA HILAIRIANA. (Bot. Mag. t. 5057.) A stove shrub, with broad oblong-ovate leaves, and axillary or terminal spikes of dirty white rose-tinted flowers of no beauty. Brazil. *Kew Botanic Garden*.

SONERILA SPECIOSA. (Bot. Mag. t. 5026.) A showy Melastomaceous stove sub-shrub, with herbaceous stems, bright green cordate-ovate leaves, and terminal two-forked scorpioid racemes of rich deep rose coloured three-petalled flowers with yellow anthers. Neilgherry Mountains, where it grows on the sides of moist ravines. *Messrs. Veitch & Son*.

TACSONIA IGNEA, which has been advertised during the past season, appears to be *T. manicata*.

THYRSACANTHUS INDICUS. (Bot. Mag. t. 5062.) A neat stove Acanthaceous

racemes of white flowers marked with a few slender purple longitudinal lines. Khasya. *T. Nuttall, Esq.*

TORENIA PULCHERRIMA. (Illust. Bouq. t. 24.) A superb variety of *T. asiatica*, different in being pubescent all over, with broad ovate leaves, and the flowers intensely rich in colour—violet, with deep maroon spots and a white patch on the lower lobe; it far excels the older kind. India. *Messrs. J. and C. Lee.*

TRADESCANTIA DISCOLOR, var. *VARIEGATA.* (Bot. Mag. t. 5079.) A beautiful form of a fine old-fashioned stove perennial, remarkable for the deep purple of the under surface of the leaves. In this variety they are at the same time striped on the upper side with yellowish lines. The flowers are small white, in curious boat-shaped bracts.

XIPHIDIUM FLORIBUNDUM, var. *ALBIFLORUM.* (Bot. Mag. t. 5055.) An Iris-like stove herb, with equitant leaves, and long raceme-like compound thyrses of white star-shaped flowers. Tropical America. *Kew Botanic Garden.*

HINTS TO LADY AMATEURS.

Greenhouse.—The great secret of greenhouse management during winter is abundance of air; this may seem strange to those who imagine greenhouse plants want coddling up, by keeping them close and warm; fires by night, and the house kept close all day, would ruin all the greenhouse plants in Britain in a couple of months. Let the house, then, be freely aired, every mild morning, from 10 to 12 or 1 o'clock, and if at all damp, light a fire the first thing in the morning, and an hour afterwards give air; this will dry the atmosphere and keep the air healthy. In frosty weather the house need not stand higher than 40° by night, but let everything be as dry as possible; all waterings should be done in the mornings, that the paths and plants may get dry before night, and if the frost becomes very severe, cover the roof with some protecting material, as frigi domo, or even tiffany, sooner than keep strong fires; frequently change the plants about, remove decayed leaves, and clean the surface soil in the pots.

Flower Garden.—All the autumn struck cuttings should be examined, to see that they are free from drip or damp of any kind; these plants will stand a low temperature, if kept dry and free from damp, so that the pits or frames should be kept as dry as is possible; give air every day except during severe frost. *Chrysanthemums* will be cut down and placed in frames for shelter.

There is nothing to be done out of doors, except keeping the Grass clean, and to see that mice or sparrows do not eat up all your *Crocuses*. Prepare, also, labels, clean pots, and get ready soil and sand for the commencement of work in February, until which period let us defer the rest.

NEW PALACE FOR THE PEOPLE.

AN influential company is in course of formation, with the object of erecting a second Crystal Palace under the above title at Muswell Hill—a delightful situation between Hornsey and Highgate, where an estate of 450 acres, admirably adapted as a site for the proposed

building and grounds, has, we hear, been purchased for that purpose. The proposed building, which, like its great precursors in Hyde Park and Sydenham, is to be a magnificent structure of iron and glass, is from the designs of Mr. Owen Jones, who has, however, introduced very considerable alterations both in the elevation and interior arrangements, and which, in our opinion, constitute great improvements, and will make the building much superior, in many respects, to the Sydenham Palace. The centre of the proposed building, which altogether is upwards of 1200 feet long and 400 feet wide, consists of an immense circular dome of 200 feet span, and 136 feet high, completely divided from the rest of the building, and intended as a winter garden or tropical conservatory, beneath whose capacious and lofty roof Palms and other types of the magnificent vegetation of the tropics will find room enough to attain their utmost development. The great advantage of having this compartment devoted to a conservatory divided from the naves will be to prevent the humid atmosphere necessary for the growth of plants penetrating the rest of the building; and thereby to preserve many fine art productions and delicate manufactures which are found to suffer where the least dampness prevails. One nave is to be devoted to works of practical utility, manufactures, &c., and the other to the fine arts and scientific objects. Besides, there are proposed minor sub-divisions, to include museums, class rooms, show rooms, &c. A grand concert room or theatre is also provided, which forms a circular projection to the building on the north front; this will contain sitting room for 10,000 spectators, and yet is so arranged that it does not interfere with the other interior arrangements.

It is proposed to surround the palace with terrace gardens on a magnificent scale in the early English, Italian, Dutch, and French styles, as well as modern English, to represent the progression of this department of ornamental gardening. An experimental horticultural establishment is also one of the objects contemplated by the promoters, as well as the cultivation of those plants which enter into the arts and manufactures; their object being to make the Palace an educational establishment, as well as to afford amusement and recreation. Useful or economic botany, as well as horticulture, arboriculture, and agriculture, will be introduced in a popular manner, so as to convey a clear view of the principles of cultivation included under each head.

As we stated above, the whole estate comprises about 450 acres, beautifully undulated, and well furnished with timber. The site of the proposed Palace will be at an elevation of 200 feet above the general level, and the view from the building and adjoining terraces will embrace a wide circle, extending over the metropolis to the Surrey hills, and the Sydenham Palace; Kent, Middlesex, and Essex. The situation is, in fact, one of the most picturesque to be met with, and remarkably so, considering its close proximity to London, and the ease with which it may be reached from the metropolitan districts north of the Thames. The extent of ground intended for the gardens and park will be about 200 acres; the soil is a sandy loam, varying to that in which clay predominates, and very suitable for the growth of trees, as is evidenced by those growing on the spot, and the luxuriance of the shrubs and

exotic trees in the neighbouring gardens growing in similar soil. In addition to the grand architectural terrace gardens, which will enclose the palace on all sides, the rest of the grounds are to be laid out in the natural style, and will include some 40 or 50 acres laid out as a park, to be stocked with deer and other animals, and also ample spaces of ground for every species of recreation. A broad carriage drive is to be carried entirely round the grounds, which will be a great boon to invalids and equestrians. A lake of 30 acres will occupy the low ground facing the terrace front of the Palace, and will prove a great feature, as seen from the higher grounds. The introduction of ornamental trees and shrubs is intended to be on a most extensive scale, and it is expected will add greatly to the interest and novelty of the gardens, admirably adapted as the features of the ground already are for carrying out the natural style of landscape gardening. The above are the principal features connected with English gardening which the promoters of this undertaking contemplate introducing into their scheme. There can be no question that the idea of making British gardening popular as well as instructive is a step in the right direction; and that there is no reason why the highest attainment of the landscape gardener's art, and the most successful examples of cultivation, may not be made subservient for imparting a knowledge of plants under every form of employment and combination,—a beautiful and suggestive idea, worthy of the age. Notwithstanding the great popularity of Kew—maintained by national resources—we think much remains to be accomplished before all the instructive lessons which may be taught through the medium of the vegetable kingdom, and the various uses and objects to which plants can be applied, are fully comprehended by the masses. We can therefore most heartily wish success to a company who, it appears, are endeavouring to carry out such ideas, and who seem desirous of making the grounds belonging to the “Palace for the People” not only as interesting and beautiful as Art can make them, but, by embodying the educational principle in their scheme, they will create thereby a school for studying an important department of natural history, as well as the principles of cultivation applicable to the garden and the farm.

BRITISH POMOLOGICAL SOCIETY.

AT a late meeting of this society, R. Hogg, Esq., in the chair, a large collection of Apples, Pears, and Grapes, was exhibited.

GRAPES.—Mr. Wighton, of Cossey Hall, Norfolk, again sent his seedling, observing, that he had cut the first bunch from the same Vine on August 5, when the crop was first ripe, showing that the bunch now sent had been kept over four months. He also stated, that he began forcing the house in which they had grown in December last, and that it had stood open for some time past, and, in two instances, exposed to several degrees of frost. On the former occasion, the meeting expressed a very favourable opinion of it, desiring to see it again at this season, to test its keeping properties. Doubts, however,

were felt as to its being perfectly distinct from some varieties of the St. Peter section, evident affinity thereto being proved by its foliage; and on this occasion it was not considered quite so juicy as West's St. Peter's. The meeting were of opinion that Mr. Wighton should be invited to send it again next year, on the days specially appointed for the examination of collections of Grapes, and that the final opinion of the society regarding it should be reserved until then.—Mr. Melville (Dalmeny Park, near Edinburgh) again sent his Seedling Muscat Grape, which had been laid before previous meetings (August 19 and September 9); and being then considered promising, was invited to be exhibited in a higher state of development next year. In this instance, a small bunch was sent, upon a third lateral shoot, to evince the prolific habit of the variety.

FRUIT EXHIBITED AT THIS MEETING FOR PREMIUMS.

CLASS A.—Premiums of 1*l.* and 10*s.* for the best and second best six fruits of Glou Morceau Pear (growers in the Channel Islands excluded from competing in this class). Nine very excellent dishes were exhibited, from different parts of the country, and so nearly did they approach each other, that it was not an easy matter to decide upon their respective merits. The following, however, is the order in which they were placed:—The first prize was awarded to a dish exhibited by Mr. J. Hall, (gardener to T. Lucas, Esq., Lower Grove House, Roehampton), from west wall, free stock; soil light and sandy, over very porous and drained subsoil. Fruit medium sized for the variety, very handsome and perfect, deliciously juicy and melting, with very rich sugary flavour. Considered one of the finest dishes of Pears which had been exhibited at the society's rooms this year.—The second prize, to a dish by Mr. Tiley, Abbey Churchyard, Bath, from an espalier, on Pear stock; soil stiff loam, over strong clay. Fruit small, compared with those from walls, very juicy, melting, and sugary. The comparative quality of the remaining dishes was according to the order in which they are described:—

By Mr. Wighton, Cossey, Norfolk, from east wall, on light soil, artificially enriched, over brown sand and gravel. Fruit medium sized; most buttery, and richly flavoured. Very highly commended. Reported to be a shy bearer, and apt to crack, in this case.

By F. J. Graham, Esq., Cranford, Middlesex, from west wall, Pear stock; soil sandy loam, over stony clay, naturally wet, but drained. Fruit small, but juicy, melting, vinous, and sugary. Reported to be fine flavoured on south wall, but subject to be spotted and cracked.

By Mr. Whiting, the Deepdene, Dorking, from east wall; old tree; soil sandy. Fruit medium sized; buttery, melting, and sugary; but slightly astringent. Reported not to succeed on pyramids in this garden.

By Mr. Duncan (gardener to J. Malcolm, Esq., Lamb Abbey, Eltham, Kent), from a south-west wall. Fruit medium sized, melting, and sweet, but not high flavoured, in comparison with other dishes.

By Mr. Cox (gardener to W. Wells, Esq., Redleaf, Penshurst, Kent), from west wall, regrafted twelve years back on an old Pear tree; soil rich garden mould, over yellow argillaceous clay, rather damp, recently drained. Fruit very large, pale coloured, buttery, and sweet.

By Mr. Stoddart (gardener to J. Gurdon Rebow, Esq., M.P., Wivenhoe Park, near Colchester), from south-west wall, Pear stock; soil rich garden mould, over stony loamy clay, damp, but drained. Fruit very large and green, juicy, and buttery, but not high flavoured.

Another dish, grown on a standard (No. 4) in the same garden, were much smaller, melting, and juicy, but astringent.

By Mr. Smith (gardener to T. W. Tatton, Esq., Wythenshaw, Cheshire), from south wall; young tree, on Pear stock, planted on prepared stations; soil strong loam, over clay. Fruit very large and green, buttery, and melting, but rather watery, and deficient in saccharine flavour.

From the above facts concerning aspect, district, soil, &c., the following deductions may be gleaned:—1st. That it is generally a variety requiring a wall, although succeeding well on espaliers in the south-western counties. 2nd. That the quality of the fruit graduates very nearly as the soil passes from light sandy loam, over porous subsoils, to strong loam over retentive clays. 3rd. That size increases, but flavour diminishes when the trees grow on rich garden mould. 4th. That the more favourable aspects on which the trees are grown, in Essex and Cheshire, are insufficient to compensate for the stronger soil, combined with the difference in latitude. 5th. That, in the south-western district, the difference of climate is sufficient to compensate for that between wall and espalier, and between strong soil and light. This synopsis of the comparison between the merits of the different examples and the circumstances under which they have been grown, is given as an instance of the manner in which it is proposed to collate, analyse, and classify the information gathered, concerning different varieties, so soon as a sufficient body thereof is obtained, to admit of its being done in a reliable manner. No comment is necessary to explain the great usefulness of such information when made public. It is also given to show to members and others the great aid they may render by sending specimens of all fruits in season, accompanied by forms carefully filled up. It is proper to mention, that in the above deduction the leading features only of the information furnished have been made use of; there are many other points—such as shelter and exposure, altitude, inclination of surface, &c.—which modify the effect of the more important conditions and circumstances, and which will be useful in more extended analyses, by explaining results which would otherwise appear discrepant.

CLASS B.—Premiums of 1*l*. and 10*s*. for the best and second best six fruits of Winter Nelis Pear. Nine dishes also were exhibited; but their general quality, either in appearance or flavour, was not proportionately equal to those in the previous class. The finest dish, in every respect, was one placed, “not for competition,” by Messrs. M. Webber and Co. The first prize was awarded to a dish exhibited by Mr. Cox, from a south wall (soil, see Glou Morceau). They were large, very juicy and melting, vinous, and sugary in flavour.—The second prize, to a dish by Mr. Wighton, from an espalier. Fruit small, somewhat shrivelled and spotted, but deliciously juicy, melting, and fine flavoured. Reported to be much subject to mildew. The quality of the remaining dishes was according to the order in which they are described:—

Exhibited by Mr. Tiley, from an espalier. Medium sized, melting, and sugary.

By Mr. McLaren (gardener to J. C. Whitbread, Esq., Cardington, near Bedford), from east wall, on light, black, gravelly soil, over very porous subsoil. Fruit medium sized, very melting and sweet, but slightly astringent.

By Mr. Holder, of Reading, from standard; soil very rich, over sandy loam. Very large and fine in appearance, promising to be equally so in flavour, but not ripe enough to compare with others.

By Mr. Melville (gardener to the Earl of Rosebury, of Dalmeny Park, Edinburgh), from a south wall, regrafted on an old Crassane tree. The latter variety is a shy bearer in this garden; but the Winter Nelis is reported to be one of their best December Pears. Soil deep light loam, over rather gravelly rock. Fruit medium sized, clear, and healthy, but very green texture, very buttery and melting, but deficient in flavour. Good, however, for the latitude.

By Mr. Newton (gardener to G. J. Graham, Esq., East Lodge, Enfield Chase), from a wall, on quince stock; soil rich garden mould, over London clay. Fruit large and handsome, melting, but watery in flavour.

By Mr. Smith, Cheshire, from a pyramid, Pear stock; planted on a prepared station. Very similar in appearance and quality to the last.

By Mr. Elliott (gardener to the Marquis of Stafford, Lilleshall), from a south wall, with the ground much shaded by very massive projecting buttresses; soil strong clayey loam; subsoil clay, over old red sandstone; very high and exposed. Fruit small, and indifferent in appearance; dry in texture, compared with the previous varieties; and watery in flavour. This exhibition is one of a class which the council are anxious to have more frequently laid before the meetings, as they are equally serviceable to the purposes of the society in adding important items of information. The council will be glad if contributors will bear in mind, that it is desirable to ascertain and disseminate information, not only regarding the kinds which are suitable for given localities, but also as to those which are unsuitable.

CLASS C.—Premiums of 1*l*. and 10*s*. for the best and second best six of any other kind of Dessert Pear in season, excepting Glou Morceau and Winter Nelis. The first prize was awarded to dish of Marie Louise, exhibited by Mr. Shoesmith (gardener to J. Morman, Esq., Bexhill, Sussex), from south-west wall; soil medium loam, over stiff clay. Fruit in very fine condition, large, clouded with russet, very buttery and melting; flavour rich and sugary.—The second prize, to a dish of Van Mons (Leon le Clerc), also by Mr. Shoesmith, from espalier; very large, russety, buttery, and melting; rich, aromatic, and very sugary. This dish was scarcely ripe, or it would have been first instead of second:—

COMTE DE LAMY was exhibited by Mr. Holder, from a standard. Fruit very juicy, but rather rough and gritty in texture; good aroma; flavour rich, vinous, but rather sharp.

BERGAMOTTE CADETTE, or **BEURRE BEAUCHAMP**, by Mr. Whiting, of the Deepdene, from a pyramid, on Quince stock (soil, see Glou Morceau). This is a little known, small roundish-obovate Pear. Average size—2, 3-16 inches greatest length, by 2, 5-16 inches greatest diameter. Colour bright lemon, with patches of light russet, and very dark irregular spots; calyx open and perfect; texture juicy and melting; aroma slight; flavour sweet, but not rich. Mr. Whiting reports, that this variety possesses, in a greater degree than any other variety he knows, the quality of ripening so as to furnish a long succession from the same tree.

BEURRE D'AREMBERG, by Mr. Shoesmith, from south-east wall, in nice condition. Juicy and melting, but rather gritty; flavour rather acid but pleasant.

OLD COLMAR, by Mr. Underwood, from an old tree, on south wall. Very juicy and melting, but not rich.

MATTHEWS' ELIZA, by Mr. Matthews, of Clapham Rise. This variety was brought as a seedling before the society, on December 3rd, 1857, and then highly commended. It was not, however, on this occasion found to be so fine in flavour, though very juicy and melting.

PASSE COLMAR, by Mr. M'Laren, from dwarf standard, on Quince stock. Unripe.—By Mr. Smith, Cheshire, from south wall. Large handsome, but dry and deficient in flavour.—By Mr. Wighton, from south wall. Sugary and

juicy, but not melting.—By Mr. Melville, also from south wall. Juicy and half melting, but deficient in flavour. Good for the locality.—And by Mr. Spivey, gardener to J. A. Houblong, Esq., Hallingbury Place, Essex, from pyramid, on Quince stock; soil rich garden mould, over strong but well-drained subsoil. Large, handsome, and ripe; melting and juicy; sweet, but not high flavoured, although the best dish exhibited in this variety.

FORELLE, by Mr. Morris (gardener to T. White, Esq., Manor House, Wethersfield), from espalier Pear stock; soil sandy, over very dry sandy subsoil. Fruit very handsome, juicy, and half melting, but deficient in flavour.

BELLE DE NOEL, by Mr. Morris, from a pyramid, on Quince stock. Fruit very juicy, but only half melting; not high flavoured.

ORPHELINE D'ENGHEIM, by Mr. Morris, from an espalier, on Quince stock. Fruit very good in size and appearance, but indifferent in texture and flavour.

BEURRE DIEL, by Mr. Stoddart (No. 3), from an east wall.—BEURRE RANCE, by Mr. Wighton, from south wall.—And EASTER BEURRE, by Mr. Grieve (gardener to the Rev. E. R. Benyon, Culford, Bury St. Edmunds); and by Mr. Wighton, from west wall;—were unripe.

EYEWOOD, by Mr. Shoemith. Fruit in good condition, very juicy and melting; flavour pleasant, but acid.

VICAR OF WINKFIELD, by G. Wolsey, Esq., St. Andrew's, Guernsey. Good in appearance, juicy, and half melting, but deficient in flavour.

SUSETTE DE BAYAY, by Mr. Wighton, from a south wall, regrafted on Crasane. Good in appearance, but rather dry, soft in texture, and, though sweet, not high flavoured. Reported to be a free bearing and useful kind in the district, and that last year it was excellent in March.

CLASS D.—Premiums of 1*l*. and 10*s*. for the best and second best six fruits of Old Nonpareil Apple. The first prize was awarded to Mr. Swinerd (gardener to John Swinford, Esq., Minster Abbey, Isle of Thanet), who sent two dishes—one from a dwarf, growing in hazel loam, over brick earth; tree subject to canker. Fruit small, very juicy and sharp, and possessing the true Nonpareil flavour. The second dish was from an espalier, in rich garden mould, and less subject to canker. Fruit large, very juicy and sweet, but not so true in flavour.—The second prize to Mr. Holder, of Reading, for a dish, from a standard (soil, see next class). Fruit juicy, acid, and with a slight, but not high Nonpareil flavour. Mr. Short (gardener to the Duke of Cleveland, Raby Castle, Durham), sent a dish from a very old tree, on a south wall; situation low and damp. Fruit large, very juicy, and subacid; deficient in Nonpareil flavour; their merit was, moreover, much injured by having been packed or laid in straw or some material which had spoiled their flavour. Mr. Short reports that his predecessor, Mr. Roberts, was in the habit of painting the trees with a mixture of cowdung, soot, and a little soap, previous to which they had been in a cankered and dying state, covered with scale and American blight, but that now they are healthy, vigorous, and productive.—Mr. Wright (gardener to Sir H. Cotterell, Bart., M.P., Garnon's, near Hereford), sent a dish from an old standard; soil strong loam, over marl, naturally dry. Fruit dry, acid, and effected by subcutaneous disease.

CLASS E.—Premiums of 1*l*. and 10*s*. for the best and second best six of any other dessert Apple in season, excepting old Nonpareil. The first prize was awarded to Mr. James Holder, of Reading, for Golden Harvey, from a standard; soil very rich, subsoil sandy loam, over gravel. Fruit fine coloured, very richly vinous, and sugary in flavour,

and, but for being somewhat shrivelled,—probably owing to having been somewhat too early gathered,—they would have been, in every respect, one of the best dishes ever laid before the society.—The same variety was also sent by Mr. Simpson (gardener to Lady Molyneux, Stoke Farm, near Slough). Very plump and juicy, but small and slightly astringent. The second prize, to Mr. Robt. Duncan (gardener to J. Malcolm, Esq., Lamb Abbey, Kent), for Lamb Abbey Pearmain, from a tree seventy years old; soil loam and gravel, over chalk. In very fine condition, well coloured, juicy, rich and sugary.

Of SCARLET NONPAREIL, five dishes were sent, none of high merit, but in consecutive value as follows:—By Mr. M'Laren, under the name of Old Nonpareil, from standards. Medium sized, juicy, but acid, and over-ripe,—and from espaliers, much smaller in size, with rather more sugary flavour.—By Mr. Elliott, Lilleshall, from an arched trellis. Fruit large, sweet, and juicy, but over-ripe.—By Mr. Newton, from standard. Very large, and in fine condition, but rather dry, and not high flavoured.—And by Mr. Short, from old tree, on a south wall (see Nonpareil). Fruit small, but tender fleshed, juicy, and sweet.

SWEENEY NONPAREIL was again sent by Mr. Whiting. In good condition, very juicy, thin skinned, and sugary flavour. This was one of the best eight dishes selected by the Committee for final adjudication.

AUTUMN NONPAREIL, by Mr. Swinerd, from standard. This was an Apple of considerable merit, one of the best eight, and apparently very little known, the name not appearing in catalogues, although, probably, recognised under some other name (said to be obtained from Mr. Kennett's nursery). Fruit oblate, slightly conoid; average greatest diameter—transversely, two inches and a half; longitudinally, two inches. Stalk medium length, slender, deeply inserted, eye puckered; colour pale yellowish green, almost entirely covered with pale russet; flesh tender, very juicy; nice Nonpareil flavour.

AROMATIC RUSSET, by Mr. Swinerd from standard, one of the best eight. Very juicy, with rich vinous flavour.

CORNISH GILLIFLOWER, by Mr. Ferguson, of Stowe, in very fine condition, one of the best eight. Juicy, rich, and sugary.—By Mr. Newton. Fine in appearance and juiciness, but not equal in condition to those exhibited at previous meetings, and injured by having been in contact with some material which had given its flavour to the fruit.—A variety very much resembling the above, but harder, heavier, and later, was sent by Mark Shepherd, Esq., Howard Lodge, Upper Tulse Hill. It was asked for again, with more information regarding it.

OLD GOLDEN PIPPIN, by the same gentleman, and also by Mr. Newton, from standards. Both very fine in appearance, plump, juicy, and possessing the true flavour in as fine a degree as it is usually found. They were of the best eight.—Under this name, also, was sent a variety, evidently nearly related, but not quite true, by Mr. Short; not equal to the above in texture or flavour, sweet but dry.

RUSSET NONPAREIL, by Mr. Swinerd (without name, No. 4), from a standard. In good condition, externally, but dry and deficient in flavour.

GOLDEN RUSSET, by Mr. Newton, from a standard. This was another variety not known in catalogues. Fruit oblate: average diameter—transversely, 2 1-8 inches; longitudinally, 1 7-16 inches; eye slightly depressed, calyx perfect; stalk long, slender, deeply inserted; skin thick, pale green, very russety, with large dark excoriations; texture juicy; flavour very rich and sweet. This, however, with several others of Mr. Newton's fruits, were much injured in flavour by having been laid on hay or something similar.

SCREVERTON'S GOLDEN PIPPIN, by Mr. Newton, from a standard. Fruit apparently gathered too soon, tough, and not juicy.

RIBSTON PIPPIN, by Mr. Elliott, grown in the gardens of the Marquis of Stafford, Tarbot House, Ross-shire, on a wall; soil light, over sand, about 400 yards from the sea; trees old, reported to be vigorous. The fruit had suffered in flavour from packing, but was very juicy and sweet, quite equal to another dish of the same kind, by Mr. Wright (Garnon's, Hereford), from a standard,

and which had been good flavoured, though rather dry and slightly over-ripe. Old trees, are reported to be healthy in this case also. Soil strong loam, over marl, naturally dry.—Another dish, but not true, was sent by Mr. Short.

GOLDEN DROP, by Mr. Swinerd, in good condition, from a dwarf bush. Flesh tender, very juicy, sweet, and vinous.

BLENHEIM PIPPIN, by Mr. Elliott, Lilleshall. Very fine in size and appearance, but dry and deficient in flavour.—By Mr. Wright. Very large, but not good enough for dessert.*

COX'S ORANGE PIPPIN was sent by Mr. Simpson. Very juicy and good, but damaged in flavour, by having been in contact with straw.—And by Mr. Holder, from a pyramid. Tender and juicy, sweet, but not richly flavoured.

NEWTOWN PIPPIN, by Mr. Holder. Evidently true, by the peculiar taste and aroma; but so small, and otherwise out of character, as is usually the case when grown in this country, that it would scarcely be recognised.

Of fruit not quite ripe:—**DOWNTON NONPAREIL**, by Mr. Spivey. In fine condition, otherwise; large, very juicy, but acid.—**BRADDICK'S NONPAREIL**, by Mr. McLaren, from espalier. Flesh tender, but very juicy, and acid.—**COURT OF WICK**, under the name of Old Nonpareil, by Mr. Smith, Cheshire, from a standard. Very acid and unpromising, as regards flavour.—A handsome, russety variety, called **WELSH APPLE**, by Mark Shepherd, Esq.—**COURT-PENDU PLAT**, from Mr. Elliott, Lilleshall, dry and acid;—and from Mr. Wright, under its known synonyme (Garnon's), very juicy, and promising to be sugary and good.—And a sweet, juicy, oblate, dessert Apple, of some merit, under the name of **EASTER PIPPIN**, by Mr. Smith.

GENERAL DESSERT APPLES—EXHIBITED IN SMALL QUANTITIES.

CORONATION PIPPIN, by Mr. Swinerd. A variety not hitherto described. Oblate, slightly turbinate, somewhat ribbed. Average diameter—transversely, 2 3-16 inches; longitudinally, 2 1-16 inches. Pale greenish yellow, slightly striped, scattered over with small, round, dark spots; very pale russet round the stalk, which is of medium length, slender, and deeply inserted; depressed at apex; flesh tender, very juicy; flavour brisk sub-acid.

SPRING RIBSTON PIPPIN, or Baddow Pippin, by Mr. Lane, of Berkhamstead. This is a very little-known variety, but one deserving of more general growth. Fruit roundish, irregular. Average diameter—transversely, 2 3/8 inches; longitudinally, 2 1/4 inches. Rind thick; colour pale green, much clouded by small patches of russet, and spots of darker colour; eye puckered; cavity within calyx deep and hollow; stalk short, thick, inserted deeply; flesh tender, very juicy, sweet, with a slight Nonpareil flavour. The specimens exhibited had, unfortunately, been gathered before they were ripe, and were rather shrivelled; but it is generally reported to be an useful late-keeping variety.

KITCHEN APPLES.

RIPLIN, by Mr. Sendall, of Burningham Hall, Aylsham, Norfolk. Reported to be a great bearer, and was considered likely to be an useful cottager's Apple; medium-sized, green, codlin-shaped. Fruit juicy, tender flesh (producing, when baked, a soft, pale brown pulp, sub-acid.

COLONEL VAUGHAN, or Lady's Finger, by Mr. Smith. An old and very beautiful, striped, wax-like, conical-shaped Apple, very juicy, and, in some districts, a favourite variety for mincemeat and cider. The same variety was sent from John Ferme, Esq., of Haddington, to be named.

POMME DE CIRE, by G. Wolsey, Esq., St. Andrew's. Reported to be much esteemed in the island for dessert or kitchen use: Fruit medium-sized, pale yellow, tender; flesh juicy, and sub-acid, but not calculated for dessert (when baked producing a delicious, soft, syrupy pulp, having a rich syrupy flavour, and requiring no sugar).

VIOLET APPLE, by Mr. Ferguson. A handsome, striped, conical, medium-sized, but soft fruit, said to be very productive and useful (when baked, producing soft and sub-acid but not syrupy pulp, requiring sugar; probably most suitable

* It may be useful to remark, that when not good enough for dessert, this is an excellent kitchen variety, as it bakes down to a sweet, juicy, soft light brown pulp, requiring little or no sugar.

as a sauce Apple.)—A very similar Apple in every respect, saving that it was more solid, and likely to keep longer, was sent by Mr. Swinerd, under the name of Searlet Nonpareil.

SEEDLING APPLES.

G. Wolsey, Esq., of St. Andrews, Guernsey, sent a Seedling, supposed to be a cross between Golden Pippin and Nonpareil, and was considered to possess considerable merit. Fruit small, oblong, slightly conical; average diameter, 2 1-8 inches each way; eye puckered, slightly depressed; stalk medium length, stout; skin thin, pale green, yellowish on the sunward side, much flaked, and covered with pale brown russet; texture very tender and juicy; flavour rich, very sugary, rich, and aromatic. It was hoped that Mr. Wolsey would send it again, with information concerning the age of the tree, &c.

Mr. Ferguson sent a Seedling Apple, called the Cottager's Ribston Pippin. Reported to be a vigorous grower, great bearer, and excellent for puddings, requiring no sugar. Fruit very large and sweet (Tested by the secretary, and found to be exceedingly sweet and sugary, when boiled or baked, and whitish coloured, but not breaking down into a nice soft pulp).

A Seedling was also sent by Mr. W. Craw, of Westbury Manor, which was a solid sugary Apple, promising to be a good late-keeping dessert fruit.

Also to a Seedling sent by Henry Boothby, Esq., Holme Cottage, reported to be a most prolific bearer, and which was a nice-looking Apple, sweet and tender fleshed, but much like many in cultivation.

Messrs. Chater, of Haverhill, sent a Seedling of a variety said to keep till March. Fruit not ripe on arrival, and subsequently appeared to have suffered from keeping, but still pleasant flavoured and tender fleshed.

SUGGESTIONS ON MANAGEMENT OF NATIONAL DAHLIA SHOW.

THE exhibition held in St. James's Hall in September last was without doubt the greatest and best Dahlia show on record—a fact which plainly shows that with a little energy and skill an exhibition worthy the name of "National" may take place every year, alike creditable to both amateur and dealer. To make the National Dahlia show what it really should be, I would suggest that a committee be at once formed of those most interested in the cultivation of that noble flower, say six amateurs and six dealers, with Messrs. Turner and Keynes for secretaries, to whom all praise is due for the spirited manner in which the opening exhibition was carried out. I feel sure that both these gentlemen will again do all in their power to make future meetings successful; but it is not fair to allow all the responsibility to fall on their shoulders, the committee as a body should be responsible. The want of a permanent committee is a great drawback to the success of the National Tulip and Carnation shows, these societies only existing in name for a considerable portion of the year, no one during that time being responsible. I would further propose that a meeting of the committee be summoned early in the season, to take place in London, when the period and place for the exhibition should be decided. In my opinion London is by no means a suitable locality for a Dahlia show, the Dahlia being in perfection at a period of the year when nearly all the supporters of floricultural meetings are enjoying the beauties of the country, a fact that must have been patent to all who attended the last exhibition in St. James's Hall. In some nobleman's or gentleman's

grounds adjacent to a large provincial town a National Dahlia show would be appreciated, and would be supported by all lovers of flowers within miles of the spot, a fine day only being wanted to raise a permanent fund.

While on this subject an idea has struck me, that if successful raisers of new flowers would each year draw their pursestrings a little open, and give a guinea or two for the best six blooms of any one variety of a somewhat similar colour to their pet seedling, what interest would be excited, and what information would be imparted, respecting the merits or demerits of the new flowers. To illustrate my meaning, I will observe that Cherub is acknowledged by all to be a fine Dahlia. A seedling was exhibited at St. James's Hall and elsewhere something similar in colour (and which I expect will be in the hands of most growers this season) named Chairman. Now if the raiser of this variety were to give any sum he thought proper for the best six blooms of a buff variety, himself and all others being eligible to compete, it would not only decide which was the best Dahlia, Cherub or Chairman, but would in all probability benefit the dealer by causing an increased sale of that particular sort. I am so convinced of the necessity of some such test, that I will willingly give my two guineas for the best six blooms of a light ground variety, to carry out my proposition, although I have no new Dahlia coming out this season. Many worthless kinds would not be catalogued, but an increased value would be given to really good varieties, if such a test could be fully carried out.

CHARLES JAMES PERRY.

The Cedars, Castle Bromwich, near Birmingham.

[Mr. Perry's proposition is a good one. Let us, however, invite the opinion of others interested in the matter.]

REPORT OF THE GREAT AUTUMN FRUIT SHOW OF THE HORTICULTURAL SOCIETY,

HELD IN ST. JAMES'S HALL, NOV. 17 AND 18, 1858.

WE feel no hesitation in stating our opinion that the autumn exhibitions of fruit held by the Horticultural Society in 1857 and 1858 have done more towards making the cultivation of hardy fruits popular than all the summer exhibitions of Chiswick and the Regent's Park put together. It was therefore no small satisfaction to us to know that the Fruit Committee of the Society had deputed Messrs. Hogg and Moore, assisted by their Secretary, Mr. Thompson, to draw up a report thereon, for the information of the Fellows of the Society. The report, which has been very carefully got up, and forms an 8vo. pamphlet of thirty-two pages; notwithstanding its great length, however, and that two entire days were devoted to their work, so great was the number of articles they had to examine, that they were compelled to leave the character and respective merit of the Apples unnoticed. We regret this unavoidable circumstance, for the information which their notes would

have conveyed on the merits and properties of the Apples exhibited would have increased the value of their report (great as it is in its present form) to fruit growers, and would have left nothing more to be desired in reference to the fruits of 1859, excepting that local information relating to soil, climate, and situation, which, when sent with fruit for exhibition, assists Pomologists very materially in getting at facts illustrative of the effects particular soils and localities are known to produce on fruits—a point of vast importance, and which we hope will in time, through the agency of the Fruit Committee of the Horticultural Society and the Pomological Society, be attained.

Some discussion has taken place in the pages of our contemporaries, respecting the comparative merits of the Ribston and Cox's Orange Pippin Apples. We can add our testimony as to the superiority of the latter in 1857, having tasted the respective fruits under comparison; nor do we see that it at all detracts from the long recognized merits of the Ribston, if in time a better fruit is produced—or put it on a par as regards flavour—of a more productive habit, or one less liable to disease, than the Ribston. For certain, the Orange Pippin is a very first class production, and, without premising that each individual fruit will at all times be superior to the Ribston (which would be a bold assertion to make in reference to any kind of fruit, comparatively), we may take it for granted that it has few—if any—equals, taking all its qualities into consideration.

It will afford no small encouragement to English hybridists and pomologists to know that the palm of excellence for dessert Pears was unanimously awarded to a British raised fruit—"Monarch"—a seedling of that prince of horticulturists, the late Mr. Andrew Knight, who also originated the Eyewood, Broompark, Althorp Crassane, and other Pears. Compared with the flavour of Monarch, many of the large fruits exhibited from the continent were worthless, though wonderfully fine looking in appearance. Will none of our pomologists take up the mantle of Mr. Knight, and try what can again be effected with fruits, by a careful system of crossing? Surely we have not yet reached that perfection, that we can afford to dispense with further improvement. The fact of an English raised seedling beating the choicest continental productions is suggestive as to what may yet be effected, both in Pears and other hardy fruits, through hybridisation. It is impossible to read the notes appended to the different collections of Pears, without being forcibly struck with the difference in regard to flavour, between specimens of the same kind from different localities; although we think it will always be impossible to generalise very closely as to the cause of this difference, a careful statement of the particulars named in the schedule, which should be applied for and filled up by each contributor, would do much to solve the question. The different conditions under which fruits ripen, as to temperature, and the degree of ripeness under which they are tasted, produces a great difference on their respective qualities. In respect to soils, so far as our own experience leads us to form an opinion, calcareous loams and soils of a clayey or marly texture, containing lime and potash, invariably produce Apples and Pears more melting and higher flavoured than soils of an

opposite character ; but the effect of different soils and degrees of ripeness as influencing the flavour of fruits is not confined to Pears and Apples. Among the exhibition of Muscat Grapes we noticed a much wider difference as regards the flavour of some of the collections than a mere outward inspection would have led us to believe ; even Mr. Drewett's magnificent Muscats were much less piquant and high flavoured than some of the others ; this leads us to the conviction that there is a limit to the period when the peculiar vinous principle, which characterises the flavour of Grapes when in their highest perfection, passes into a more saccharine state. Grapes hanging long after they are ripe, and particularly if exposed to a strong light, lose the vinous piquancy and aroma which they possess when newly ripened ; and when Grapes have to be kept long after being ripe, we advise their being well shaded during the day ; indeed, the darker they are kept, the longer will they retain their briskness and flavour.

We were much disappointed at not seeing much larger collections of foreign Grapes, knowing how many dessert varieties, new to English growers, are cultivated in some districts of France ; let us hope Monsieur Deynoot will not be the only exhibitor in this class the next occasion. We very strongly recommend this report to the consideration of fruit growers, who may gather from its perusal much that will instruct them on the peculiarities of fruits for the season just passed away. These reports should be kept and compared hereafter with those which we hope will follow in due course. We beg to give entire the following observations of the reporters on the non compliance of exhibitors with the wishes of the Fruit Committee :—

“The reporters regret that the responses made to the schedules issued by the committee were so few. The object of these schedules was to ascertain particulars respecting the climate, soil, and subsoil of the locality where the respective fruits were grown, and the circumstances under which they were produced. Such of these schedules as were returned filled up have been incorporated in the report ; and, where such is the case, it will at once be seen how desirable it would have been if similar information could have been given in every instance.”

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—We class these together, for although there are several points of variance in their culture, they do well enough together for the present. Camellias, if at all forward, will now be coming into bloom ; to retain these in perfection for some time, keep the air of the house as dry as possible, and shaded from bright sun, as the least damp or drip will soon spoil the blooms of the light-coloured varieties. Camellias at this season, if full of flower buds, should be watered with weak guano water, alternately with common soft water ; this will much improve the size of the blooms, and induce the plants to break stronger when their annual growth commences. Azaleas for blooming in May and June should be retarded as much as possible ; bring on a succession in the forcing house by introducing a few free

blooming varieties every fortnight. The common white, Triumphans, Optima, Rosea punctata, Speciosissima, Vivicans, Duke of Devonshire, Murrayana, we find among the best for forcing, while the Variegata class are more difficult. Azaleas, like Camellias, are benefited by weak guano water when very prolific of bloom.

Auriculas.—There has of late been sufficient moisture in the atmosphere for these plants, but, as the days lengthen, more water will be required. Towards the end of the month they may be placed on the blooming stage, if not wintered there; our plan being to keep them cool during the two first months of the year, that the plants may swell gradually, and not be brought prematurely into bloom. Top dress, and keep clean of insects and dead foliage.

Carnations and Picotees.—These are also on the move, from the mildness of the season. However, be sparing with water for a time; but towards the end of the month let them have a good washing, should there be a mild rain. The frames should be kept open as much as possible. As potting time is at hand, and the soil prepared, care should be taken not to let it get too wet. Early potting is preferable, but planting in beds must be deferred till March. Old pots should be washed before using.

Calceolarias, shrubby or half shrubby, will now propagate freely from old stock plants. Those intended for specimens should be struck in autumn, stopped now, and receive a liberal shift as soon as they have broken. Herbaceous seedlings should now be repotted.

Cinerarias.—Continue to thin out all superfluous leaves and small suckers from show plants, and peg down or tie out, so as to admit the light and air freely to the centre of the plants; keep them on a nice cool bottom in a pit that is heated, as near the glass as possible, or if the pit is too deep, place them on inverted pots, so that the air may have free access to the foliage. Fumigate occasionally and with great care, as the young shoots and flowers are tender at this season. Sulphur immediately on the appearance of mildew. A little weak liquid manure may now be given to such as are full of roots. Throw the lights open every favourable opportunity.

Conservatory and Show-house.—The extreme mildness of the season, as noticed last month, has continued up to the present time, and has produced the best effects on winter flowering and forced plants, which are blooming freely, owing to the large amount of air which the season has permitted to the conservatory and forcing house. Guard against damp and cold cutting winds, but in other respects keep down the night temperature to 45°, unless you have a mixture of stove plants in the house, when 5° more may be allowed.

Cold Frames.—Now will commence a busy time for the propagator of bedding stuffs, which at present we presume are wintering in frames. The stock should be looked over, and of any kinds likely to prove short of the expected demand, remove to where there is a gentle heat, to force them into growth for cuttings; this will more immediately be the case with Verbenas, Petunias, Ageratums, and Lobelias.

Dahlias.—Roots, particularly ground roots, have kept very badly this season; but as the propagation will now have very generally com-

menced, the extent of the losses will have been ascertained. Cuttings will now strike readily, but should the roots be secured by being started, the forcing should be moderate, not to exhaust the root, as March is the best time for making healthy plants easily; some make sufficient by dividing the root only. Pot roots should not be started for a month to come, or seed sown.

Forcing Ground.—No better plan of procuring forced Asparagus economically exists than by taking up three or four years old plants and placing them in pits or frames over a gentle bottom heat. Where beds are arranged to admit of linings being applied to the roots, and the surface protected, now is a good time to begin to have the Grass early in March. Bring forward successions of Seakale and Rhubarb, and plant a quantity of good forcing kinds of early Potatoes in a little heat, to sprout ready for transferring to frames towards the end of the month.

Flower Garden.—A fine time now for carrying out any alterations in this department. Prepare soils for the beds, to be ready for digging in March. Take care of Crocuses and other early bulbs, of which mice are very fond.

Forcing Shrubs.—There is nothing in this way half so beautiful as forced Roses, which are universally admired. If you wish to succeed well, strike the plants yourselves from cuttings, or at any rate buy plants on their own roots. Our plan is to grow these in a good open situation for two or three years, till they get to a good size, and then take up and pot in very rich soil. If this is done in October, and the pots are plunged in a frame, with a little bottom heat for the roots, they will answer admirably the first season, if not worked too hard. Add Honeysuckles, the common and scarlet Thorn, Sweet Briar, and Mock Orange. The hardy Chinese Azalea amœna, and seedlings from it, are among the prettiest and freest to flower of all forced shrubs.

Fruit (hardy).—Filberts may be pruned towards the end of the month, when the blossoms appear. Cut out all very weak and unproductive wood, allowing a good share of the male catkins to stay on. Where new fruit trees are wanted, lose no time in procuring and planting them. Our pages contain much valuable information on making borders, &c., and also of lists of the most suitable kinds for various parts of Britain. Pruning and nailing should be forwarded at once. Bush fruits, after pruning, should have good dressings of manure spread over the surface, to allow the rains to wash it in.

Fuchsias.—(See article in the present number).

Greenhouse (hard-wooded).—Winter flowering Heaths and Epacrises should have a light situation. Hiemalis, Wilmoreana, rubra calyx, mutabilis, vernix, are valuable at this season. Look well over New Holland and Cape plants, to prevent damp. Keep the surface soil free from Moss and Lichens, which prevent evaporation, and ultimately ruin the plants. Water only when dry, and then effectively. Keep the house cool and rather dry, and don't allow the plants to get excited into growth for some time. *Soft-wooded Plants.*—Guard against the attacks of green-fly by timely fumigating. Shift Cinerarias, Calceolarias, and Pelargoniums, for late blooming; these plants should be kept rather warmer than the above.

Kitchen Garden.—A busy time is approaching, and it will much facilitate the operation of sowing and planting, and benefit the future growth of the crops, if the ground has been previously well prepared by deep cultivation. All ground for spring cropping, if not already dug, should at once be dug or trenched, as requisite, adding the necessary manure for incorporating with the soil during the operation. Cabbage and Lettuce may be planted out on warm borders, if not done in the autumn. Sow also Peas and Beans, Radish, and Horn Carrot, in sheltered situations. When the quarters are clear, trap all the slugs you can, by laying down a few leaves here and there, or half a shovelful of fresh grains, to entice them; this step will save much trouble and annoyance hereafter. Plant Rhubarb, Seakale, and Artichokes, on deep-trenched and well-manured soil. As these are plants intended to remain for some time on the same ground, a good preparation is necessary.

Pansies.—Plant into large pots, from those they have been wintered in, such as are intended to bloom in pots. A month hence will do for planting beds.

Pelargoniums.—The specimens intended to flower early, if not already done, should be tied out to their proper shape. Increase the temperature a little as the season advances, and water more freely; be careful that enough is given at a time to penetrate the ball. Air should be admitted daily, the state of the weather permitting. Take care to close early in the afternoon, with a little sun-heat if possible. Plants that have been wintered in small pots should now have their final repotting; and, if convenient, a little fire-heat will greatly assist the bad growing sorts, and especially the fancies, in giving them a gentle start in the fresh soil. Also this is a good time for stopping plants, to flower late, that are established in their blooming pots. Seedlings should be well looked to, giving them sufficient room, not to draw each other up weakly.

Peach-forcing.—Disbud the early house when forward enough, doing a little at a time. Fumigate if green-fly appear. After the fruit is fairly set, the trees may be syringed with tepid water daily.

Pinery.—A brisk heat must be maintained to fruiting plants to get them up, say 70° night temperature, and rising 10° or 15° during the day. Pines in bloom should have a very dry temperature at this season, to cause the blooms to open regularly and form handsome fruit hereafter. Keep succession plants in a mild growing temperature, that they may start into growth as slowly as possible. Give as much air as you can every opportunity, and don't allow the bottom heat to decline, or the plants will get a check, which may throw them into fruit in April.

Strawberries.—The first batch will bloom this month; as they show their trusses, increase the heat slightly, to draw the flower stems out from the foliage. Keep the plants near the glass, and free from green-fly. As the blooms open, raise the temperature to 60° by night, and give air on all occasions. Water sparingly when in bloom, but as the fruit sets, increase the supply. Manure water will not be needed till later. Bring on successional crops in pits or frames as gently as possible, and remove them to more heat and air when the trusses appear.



Chrysanthemum
Golden Queen of England. T. Prout, sculp.

CHRYSANTHEMUMS.

(PLATE 149).

HERE'S a dainty dish, not to set before a king, but set by the sovereign of all the Chrysanthemums before his good friend the public. Carry your mind, my good reader (a fair one I could never think of putting into such a predicament), 20 years back; do you recollect the long thin-petalled semi-double things that people used to call Chrysanthemums; and then put them along side of Golden Queen of England, and you will doubtless say, "Is it possible that they can be the same flowers?" And then those charming little Pompones and Hybrids were unknown, while now, with some, they put the large flowered varieties out of the field. In truth, it has become a popular flower, and deservedly so; it blooms late, gives us colour and beauty when other flowers have done their work; and then it is everybody's flower; it will survive, nay luxuriate in the smoke of London; it adorns the poor man's garden, and will even stand the coddling which too many flowers, alas! get from those fair ones, who "love them not wisely, but too well." The consequence of this popularity has been their great advance in every respect; and now, on every side, we hear large encomiums on this very beautiful and accommodating flower. To no one are the lovers of flowers so much indebted as to Mr. Salter, for his continued care in bringing before the public the best varieties—while, perhaps, Mr. Broome, of the Temple Gardens, has most tended to popularise, by showing people what may be done with them under the most disadvantageous circumstances. A great deal of bother and fuss was made about the dressing of the flowers, and the distorting of the plants, at the last autumnal shows; with regard to the first, the outcry is, I think, ridiculous; for there is not a florist's flower exhibited that does not undergo some dressing, and as that is well known, who is wronged by it? Certainly not the exhibitor; no, but the public. Well, but my good public, if you want to grow these flowers, go to some respectable nurseryman—Mr. Salter, for instance; tell him what flowers struck you, ask him if they are good, he will tell you all about them, and rely on it will inform you that you must not expect to equal the blooms you have seen, unless you bestow a considerable amount of care, time, and expense, on them.

As to the one-stem system of growing, it has been indeed pronounced "squat," "absurd," "vulgar," and "Chinese," &c.; but yet, after all, it is a matter of taste. Byron hated a

lumpy woman; yet many disagree and tell us that not so did the ancient sculptor think, when he formed the *Venus de Medici*. I must own that some of Mr. Broome's plants thus grown struck me as being very beautiful; my great objection to them being that they take up so much room; and after all, who grows a plant naturally? There must be staking, tying out, nipping, &c., and the extent to which this is to go must depend on the tastes and wishes of the grower. As a general rule, I should prefer plants as natural as possible, though I see no real objection to a few being thus twisted out of their natural position—however, be careful my good reader, this can only be done at a considerable expenditure of time and trouble.

I do not think that we have gained much in the way of cultivation. The best time for striking cuttings is by many said to be November; but some of the finest plants at the last shows were, I believe, from those taken off April and even May. There can be but little advantage in autumn struck cuttings, unless they are to be kept growing all the winter—as some advise. It cannot be too strongly impressed on growers that the *Chrysanthemum* is a very gross feeder, and that consequently, if you grow it in a small pot, you must supply continued fresh nourishment—not only watering it well every day, but giving it considerable doses of liquid manure. One great object should be to have the foliage clean and fresh to the very pot, and this will never be done if they are ever allowed to flag for want of water. And now as to sorts; if you have not any, go to a good nurseryman—Mr. Salter, of Hammersmith; Mr. Henderson, of St. John's Wood; and Mr. Turner, of Slough; may be relied on; tell them your wants, and leave yourself in their hands. If, however, you have a good number of varieties, you will, I dare say, want some new ones. Let me refer you then to the list at the close of this paper, which has been supplied by one of the above eminent growers, and which we have very little doubt can be fully relied on; but before doing so, I would again ask you to look at the plate, and when you hear that the superb yellow there figured is a “sport,” you will doubtless cry out—Oh! fortunate Mr. Salter; for he is the originator of it. It bloomed last season at the Versailles Nursery, from whence so many fine varieties have emanated. It sported from Mr. S.'s own *Queen of England*, in 1857. The colour is a golden canary, with a rosy shade when fully incurved. As a show flower for cut blooms, it will, we believe, stand unrivalled, both for form and size among yellows, even as all blush flowers are eclipsed by *Queen of England*, of which it is the exact counterpart, except in colour. To those who visited the winter garden last November, any description will be superfluous, inasmuch as all were unanimous in its praise;

but its beauty will be more fully developed at the autumn exhibitions, as special prizes will be offered for single blooms at most of the London and country shows. Prince Albert will, we are assured, become one of the most attractive among dark-coloured varieties, especially as a specimen plant. Its fine dwarf habit, large double flowers, brilliant colour, and general good properties, will give it rank second to none as a conservatory plant. It is well known that Mr. Salter does not grow *Chrysanthemums* for public exhibition, all those at his nursery being in their natural state; we therefore anticipate that both these flowers will be shown at the next exhibitions, very much larger and more perfect than they have been yet seen. They will be sent out from the Versailles Nursery, Hammersmith, by the end of April, and may also be obtained from all the principal nurseries.

The following is the list alluded to above:—

LARGE FLOWERS.

Aimée Férière, incurved, white tipped, bright rose, late bloomer, but very beautiful

**Aurora*, yellow ochre, form of "Ruth," but lighter and more double

Baron Scalebert, very large, rosy lilac

**Cassandra*, large incurved blush, dwarf and very free bloomer

Curtius Quintus, incurved, rosy chestnut

Duchesse de Montebello, delicate peach, finely incurved

**Excelsior*, dark crimson, very double and fine, but blooms late

Fabius, bright orange salmon

Fortune's Two-Coloured Incurved, bright chestnut, and yellow, very much finer colour than the old "Two-Coloured Incurved," and very attractive as a late blooming variety

Glory, or *Sarnian Glory*, fine light rose lilac, in the style of "Nonpareil"

Globe White, large pure white

**Julie Lagravère*, dark brown crimson, dwarf and free bloomer, much finer colour than "Bob," and is without doubt one of the best conservatory plants ever sent out

**Jardin des Plantes*, very bright golden yellow, incurved

**Louisa*, paper white, rather late, but free and good

**Louis Bonamy*, large rose, lilac anemone

Madame de Puymirol, red and orange, incurved, in the way of "Dupont de l'Eure"

**Madame Clos*, mottled rose and lilac, remarkably double, almost a ball, and very beautiful

Madame Leo, white or ivory, blooms late, but very double and fine

**Mademoiselle Elizabeth Voisins*, pure white, early, and very free

**Mount Vesuvius*, large fiery red, much brighter and more double than "Mount Etna"

Orange Brilliant, fine brilliant orange

Progne, dark amaranth or carmine, late bloomer, but very fine colour

Raymond, incurved, orange buff

**Sulphurea superba*, clear sulphur, fine double, and very distinct

Virgo Marie, large blush white

POMPONES.

**Andromeda*, blush yellow, with brown points

Ariel, lilac blush, late bloomer, but very double and fine

**Baron d'Adswærd*, blush, tipped rose lilac

**Elisa Couté*, rose and white centre

**Esmeralda*, red salmon and orange, very double and free

Eugene Laugaulet, anemone, yellow and orange centre

*Golden Cedo Nulli, golden yellow, and brown points, very fine, a sport from "Cedo Nulli"

*Madame Fould, cream, of splendid form

*Madame Mieliez, dark rosy violet, late, but very fine

*Madame Molinie, anemone, rose and gold centre, very distinct

Madame Sentir, anemone, pure white, very fine, but rather late

*Maid of Saragossa, rose, and blush centre

Madame Villefranche, blush and rose

Marinette, orange and yellow

Marmouset, chestnut and orange

Miss Julia, dark crimson chestnut, very double

*Miss Talfourd, fine white

*Mrs Dix, blush bordered rose, very full, and by far the finest flower in this colour

*Mr. Astie, anemone, bright golden yellow, of perfect form

*Mr. Shirley Hubbert, hybrid anemone, very bright rose pink and gold centre, free bloomer, and very fine and distinct

*Nanon, dark orange, quilled, but very fine

*Polycarp, light chestnut and orange, dwarf, and very double

*Salomon, rosy carmine, very free bloomer, and fine

P.S.—Those with a * are most suitable for specimen plants.

Deal, February 18.

D.

"YELLOW ROSES, AND ROSES OF YELLOW TENDENCY."

SINCE you kindly published my last Rose article, I have received letters about Roses, and especially about yellow Roses. Though I cannot speak authoritatively about them, yet a few words derived from experience, observation, reading, and common sense, may not altogether be unacceptable at a time when the song is everywhere heard—

"She meets you with a smile at morn;
She lulls you to repose;
The flower for peer and peasant born—
The everlasting Rose!"

I deeply regret that we have so few yellow Roses, or Roses of yellow tendency, fit for show purposes, or general out-door cultivation. We sadly want a hardy H.P. yellow. I have no hopes of Englishmen; but I still have hopes that French raisers, with their more genial climate and greater enterprise, will use Harrisoni for such a purpose. It is hardy, a true yellow, and opens freely. Whether it could be used to originate a Perpetual, I am not learned enough to know. The Cloth of Gold, Lanarque, and Solferatte, are not strictly yellow Roses, but of yellow tendency. Others are canary, or pale, or dirty cream. Sulphurea superba, Isabella Gray, the Persian, and Harrisoni, are, I believe, the best true yellows. Except Harrisoni and the Persian, I fear, these require to be grown under glass, or with great and careful protection. Certain it is, that yellow Roses, as a class, require age, good rich drained soil, room to grow where and how they like, little knife, and winter, spring, and in some cases, summer protection, before they will succeed. Much has been said about Sulphurea not opening;

the reason is, people have tried to bloom her before she has come to maturity of wood. When she attains age (and this she will never attain without the greatest protection) she will force her buds open; and no human "nostrum" will cause her to do so, before her constitution is established. On an alien stock, she may, probably, be hastened a little; but even on this, she must have time to form firm main wood. The same may be said of the Cloth of Gold. The difficulty is to get it to age; after that, spring protection is all it wants. I have seen the Cloth of Gold, which was budded in 1847, by the Rev. C. Onslow, of Wimborne—on a standard brier, blooming beautifully in 1848, in the centre of his courtyard, at the west of his house, surrounded by the house and walls on all sides. How came it to do this? Why, it was budded on an established brier. The Cloth of Gold does not like removal, till the wood is two or three years old. I have planted a very good dog brier under my south wall, which I shall bud with the above Rose; and glass-crate it over head, and on the east and west sides, leaving it open to the south. I have two Sulphureas come, and they must be served the same, or I can see that they will never do here. Under this crating they must be fostered into age. With regard to Sulphurea—called when I was a boy, the Yellow Cabbage—I have never seen it in bloom for forty-three years. There was an old tree, very old, in my native place, belonging to a very old woman, named Eleanor Ricketts, at that time accounted to be a "witch," but a great favourite of mine, because she gave me "yellow Roses of great beauty, honey, and brown-shell nuts" Apples. From that time to this, I have never seen Sulphurea, nor have I ever since seen such a yellow Rose. The tree was against the house, which had a south aspect, and was surrounded by high hedges—in a word, the house was in a hot lane. The difficulty of course with these tender Roses is to get them to age. Maturity of age for bearing is different in different Roses, according to their origin, or native clime and position.

I should imagine that an orchard house would be a good place for them, trained against a wire trellis. This is the place for Smithi (he died in six weeks here, covered with a ridge tile, and glassed at his feet), which is fine in bud, but bad when opened.

With regard to Roses of yellow tendency, I would observe that both Lamarque and Solfaterre may be grown compact and full; for I have seen them both so; usually they are of the loose order, and should be cut for show before fully ripe. I saw Lamarque last year, round and compact as Alexandrine Bachmeteff; it was grown by Mr. Burgess, of Lansta Farm, close here.

Let me say a word about Solfaterre as a south wall Rose:—How easy is it to grow—how defiant of aphids—how quickly does she cover your house—how glorious and numerous are her clusters—how beautiful are her red stems, lizard-green calyx, and fine buds and foliage—how sweet is her tea scent—how early does she bloom—how careless of frost—how faithfully does she bloom a second time—how well does she mature and bloom every bud, without the slightest failure! I have spoken of this Rose before—I will speak of her again. She was two or three years old, when I bought her of Mr. Gill, of Blandford, for

Is. 6d. She had on her, when I first saw these, a cluster, with one larger, more sulphured, and more compact rose than I have ever been able to grow on her here. She is now about eight years old—is on a dwarf brier, and planted against the south frontage of my house, with nothing on her western side but a wood trellis porch, to stop the wind between her and Gibraltar. She is as high as the house, and covers twenty-four feet in space, and would have covered as much again, if I had been able to allow her room. She has had on her first bloom this year between two and three hundred clusters, with from three to five buds each. Imagine, then, this space covered from day to day with fresh blooms of great magnitude and good form. I thought of Mr. Rivers, and his note on her in his admirable book. Well, I cannot tell the exact number of her blooms; but this I know, she gave a second series of twenty clusters of sixty Roses, as large and sweet as in her first blooming. Where, then, is the Rose of yellow tendency, that will do all this? And how came she to do it? The answer is, management and high feeding. I fed her once a week all through the season; and when her first bloom was over (about a week before the National), and last bud was unfolded, I cut off, to two eyes, all her side wood, like a Vine in winter. She looked dead—I fed her still—she moves not, except at her terminals—Nature asserts her claim—she rests for a month or more—a heavy rain comes, and soaks her through and through—she lives again—her eyes peep and start, form buds, and bloom again! Is not that a Rose, and a good Rose too? In the last week in May, this great sight may be seen, and I hope some one will come and see her. Depend upon it, for general and easy cultivation, Solfaterre is the best wall Rose, of yellow tendency, in England. Remember, then, the keys to yellow Roses; and remember that while age is the key to blooming, protection is the key to age.

February 5.

W. F. RADCLYFFE.

THE HORTICULTURAL SOCIETY'S PRIZES FOR STEWED PEARS.

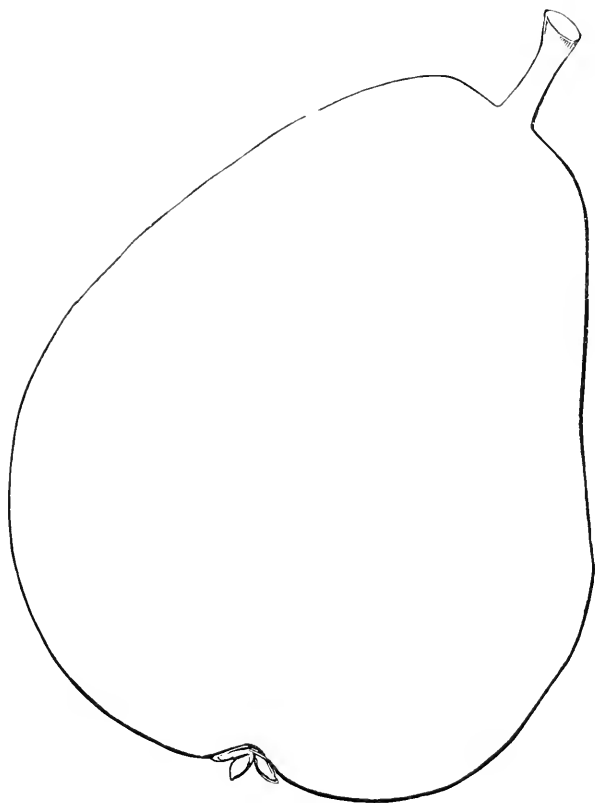
CAN you, Mr. Editor, or can any of your readers inform me on what principle the awards to stewed Pears were made at the Horticultural Society's Show, in St. James's Hall, in November last? The object proposed in the schedule, was to ascertain what were the best Pears for stewing; but the awards appear to have been made as if the object had been to ascertain who was the best *confectioner*—colouring, sugar, lemon peel, spices, &c., &c., used *ad libitum*, were not considered at all a barrier in deciding which were the *best Pears*. The affair was certainly a great mistake, and it is easy to believe that some clever *artiste* might have carried the prizes, without in fact using any Pears at all. It reminds one of the cook, who, for a wager, produced an exquisite soup, the basis of which was white kid gloves.

Q.

PEARS.

1. BEURRE AGUSTE BENOIST.

THIS valuable Beurré Pear is of recent introduction, and, according to a report in the *Revue Horticole*, it is a chance seedling of French origin, stated to have been discovered "growing in a hedge near Maine et Loire," and named after the nurseryman by whom it was first propagated. A short time ago we received fruit of this Pear from Mr. Nicholson, of Egglecliffe, near Yarm, Yorkshire, from which the accompanying outline and description were taken. We are informed that Mr. Nicholson "received it from France in 1848; and that the tree is hardy and a free bearer when grown as a pyramid; he considers it the best among all the varieties he cultivates." The fruit is of the

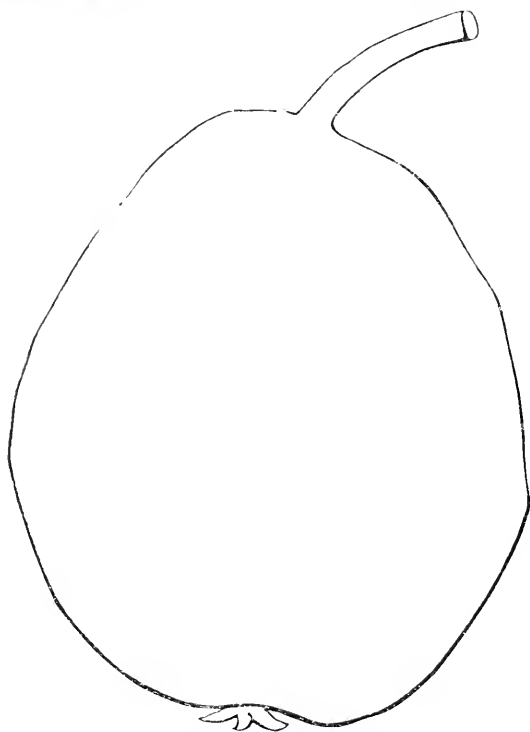


first size, and even in outline; skin pale yellowish green, overspread with numerous grey specks, and flakes of cinnamon russet near the stalk and apex; and tinged with rich brownish red on the side exposed to the sun; altogether a very handsome fruit; stalk three-fourths of an

inch long, stout, and inserted without much depression ; eye small and slightly sunk in a narrow cavity. The flesh is yellowish white, fine grained, perfectly melting, saccharine and rich, with a strong musky flavour, not unlike that of the Gansel's Bergamot ; it usually ripens through November and December. The tree is of medium growth and fruitful habit, and has small dark green glossy foliage ; and, judging from the fine appearance and quality of the fruit sent us by Mr. Nicholson, it cannot fail to be a very desirable variety for growing in the northern counties.

FLADBERG.

This Pear is not exactly of recent date, but it is not so well known as it deserves, as it is of excellent quality, and one of the hardiest and most prolific of Pears when grown as an open standard. It partakes a good deal of the character of the Swan Egg, and appears to be a great improvement on that fine old variety. We owe the origin of this Pear to the late Mr. Williams, of Pitmaston—a gentleman who devoted



a large portion of his life to raising seedlings, and did much towards improving our hardy fruit. The Pear in question is of medium size, and uneven in outline ; skin rough, of a brownish red on the exposed side, the other portion intermixed with yellow and green, and thickly

sprinkled with brown specks; eye small, and set in a small even cavity, and has a long reflexed calyx. Stalk an inch long, and set without depression, and usually reclining to one side; flesh yellowish and melting, and possesses a very refreshing juice, with a flavour resembling that of the Swan Egg, and usually ripens through November and December. The tree is of strong growth and upright habit, and bears freely in a young state, producing fruit from the points of the previous year's growth. It is a very suitable kind for the orchard or for pyramid culture.

J. POWELL.

THE ARTICLE WITHOUT A NAME.

(Concluded from page 25.)

I WAS sitting to-day, Mr. Editor, in a very tranquil state of mind—so tranquil, indeed, as to approach that Elysium of forgetfulness attained by a certain celebrity, who—

“Went along thinking of nothing at all;”

when that dusky Mercury from Bagnigge Wells Road alighted, not like his renowned ancestor of Shakesperian memory, “upon a heaven-kissing hill,” but from the top of a two-penny omnibus, and came thundering at my door for a “remedy.” Having a lively recollection of the circumstances under which I had made his impship’s acquaintance, I was about to despatch him to my friend the chemist over the way for a dental application, when, happening to turn to your last *Florist*, which lay on my table, I found that the first part of this article closed with the promise of a “remedy” in a future paper. The true state of the matter was at once apparent. “God bless me,” I exclaimed, “Why, it’s the conclusion of the article without a name the boy is waiting for.” “Yes,” interposed he, “and I am not to go back without it; and here is the 24th of the month again, and not a line written.” Propitiating the imp with a shilling for the pantomime (there was a morning performance), and instructions to call again at four o’clock, I seized a pen, made an effort, and here, my dear Sir, is the result.

“Variety, in some instances,” observes Shenstone, in his *Unconnected Thoughts*, “may be carried to such excess as to lose its whole effect,” and this is exactly what results from our usual mode of shrubbery planting. Extremes meet, says the old adage, and here we have practical exemplification. Variety there may be if you select merely a square rod or two in any one part, but the same features are repeated so continuously that the dulllest monotony is the combined effect.

Now, why cannot we discard this tedious antiquated sameness for something better. I have a profound respect—nay, veneration—for old and time-honoured customs, but when their adoption only defeats the end in view, as in this instance, they should be permitted to pass quietly away. Writers on gardening are fond of believing themselves, and persuading their readers, that Nature is their great fount of

inspiration ; and that, with her precepts to guide them, they cannot go wrong. There is, doubtless, a large grain of truth in the bushel of chaff which usually hides it ; but were it not sacrilege to parody a well-known exclamation, we might say with much truth, " O, Nature ! what monstrosities have men committed in thy name."

But we must descend. Can anything be more tediously assigned than the ordinary shrubberies in a garden, or more opposite to what we are persuaded to believe they represent—

" Nature to advantage dressed."

A natural shrubbery has breadth, massiveness, and repose ; its prime elements are few, but the effect is an harmonious whole. An artificial one, on the contrary, is in ninety-nine cases out of every hundred a mixture of heterogeneous and discordant parts—variety run wild—breadth, massiveness, and repose murdered.

It will be understood that I am not in any way alluding to collections of shrubs and trees viewed simply *as* collections, but to the main or principal features of a garden to which other matters must be subservient.

Instead of distributing the same kinds of plants throughout the garden, why not concentrate particular kinds in given positions, varying them as regards soil, situation, or aspect, or in accordance with any local circumstances that may present themselves, so that, in making a circuit of such a garden, some new feature may be constantly presented. In some parts, particular kinds may be grouped in considerable masses, while others may be more or less detached, yet still preserving a massiveness and breadth of effect. Here Hollies may prevail ; there *Arbutus* ; in another, *Phillyreas* ; in a fourth, *Rhododendrons* ; and so on. Deciduous plants will, of course, be employed to a considerable extent, but it will be found the better mode, whenever practicable, to confine the undergrowths in the principal shrubberies to evergreens, using a preponderance of deciduous things to break and vary the sky outline.

In common with every commendable garden practice, this grouping system has been in some degree adopted in the irregular parts of the grounds of the Crystal Palace. The effect is patent to everybody with time and a shilling to spend.

But there is one other circumstance so utterly destructive of all breadth and repose in a shrubbery, that these observations, incomplete as they are, would be still more so if I did not venture on a few condemnatory remarks thereon. I allude to the harsh band of bare earth which is so studiously preserved around and in front of shrubberies in general. It is much to be regretted that gardeners usually cannot or will not see that a garden is made for something more than to " bed out " flowers in. They will persist in sacrificing everything to this one feature. As a body, they cannot imagine a garden in which the fronts of the shrubberies are not ornamented (?) with gimcracks in the way of *Petunias*, *Geraniums*, *Fuchsias*, and weedy annuals. And to carry out this, their pet desideratum, the edging iron and the rake year after year destroy or neutralise those harmonious features which Nature, if

allowed her way, would produce. A mass of shrubs, the boughs of which gracefully sweep the lawn, compared with a similar one bordered with bare earth or weedy abominations, do not admit of comparison.

L.

FRANCIS'S BRITISH FERNS.

LAST year I ordered from London your *Florist*, with which I am greatly pleased, and shall continue to take it in. In the volume for 1851 is a critique on my *Analysis of British Ferns*, edit. iv. I beg to say, that I had nothing to do with that work after the second edition, neither have I seen a copy of any later edition; hence the errors you point out, and the not keeping pace with the improved knowledge of the time, which you complain of. My last edition, the second, was published in 1842, I believe soon after the venation as a characteristic of genera was first promulgated by my friend, Mr. Smith. On that matter I have much modified my views; I think it much more valuable as a diagnosis than at that distant time. Your other censurable remarks certainly have much foundation, as far as I can judge of them without seeing the edition referred to. I do not even know if the same plates are continued, so that I must beg to be exonerated from all blame on this matter; and, even at this distance of time (seven years) I trust you will find room in your *Florist* for this note, written from the Antipodes, as I am now Director of the Botanic Garden, Adelaide, South Australia. In your volume for 1851 is a letter, entitled, "News from Mount Barker." The writer I am not acquainted with, but his letter is very correct altogether, and applies almost as well to the present day as then. When I have time, I will send you a paper or two on Australian Gardens.

GEORGE W. FRANCIS, F.H.S.

Adelaide, December 8, 1858.

[We very readily give insertion to the above letter from Mr. Francis, as affording an explanation of his views at the present time on the question commented on by the reviewer in the *Florist* so long ago as 1851. Mr. Francis was among the very first British botanists who directed attention to the Ferns and their allies; and, as such, is entitled to our respect; and doubtless the errors complained of would long since have been rectified had Mr. Francis continued his labours in this country. The letter shows rather curiously how booksellers make up new editions, with improvements, &c., and affords a hint to authors to see that their names are not made use of without their consent, or their having the chance of correcting their first impressions. We shall be very pleased to hear again from Mr. Francis.—ED. FL.]

SOUTH METROPOLITAN CHRYSANTHEMUM SOCIETY.

WE have much pleasure in laying before our readers the following account of the progress of this Society. At a meeting held on the 14th ult., Dr. Bushell in the chair, nearly fifty new members were proposed and elected, increasing the strength of the Society to upwards of 100 members. The Chairman, in opening the business of the evening, mentioned the kindly feeling which existed in the immediate neighbourhood, and, as an instance, informed the gentlemen present that Mr. Tichener, of the Grosvenor Arms, Grosvenor Park, had instituted a respect board, on which should be placed the names of Annual Subscribers. Mr. Tichener expressed himself very gratified that his endeavours had met with the approbation of the Society, and hoped that the South Metropolitan would stand second to none in the Floricultural world; but take its place in the foremost rank.

The Chairman then stated that the meeting had been specially convened to hear a short discourse or lecture from Mr. Broome, of the Temple Gardens, as to his mode of cultivating this very favourite London flower. Mr. Broome was then introduced by Mr. Hayhow. He commenced by stating that he had not come to lay before his audience a long dry wordy statement; but to show, in a practical point of view, how the plant may be brought to that perfection which has been so admirably exemplified at our late London exhibitions, and directed his advice more especially to young beginners than those who were better skilled in their culture, and that he never felt happier than when he was giving his experience to those whom he thought would benefit by it, and which he had only been able to gain by great perseverance and travel. We must mention, by-the-by, that this lecture was illustrated, and that Mr. Broome here took up an old root of the sort Queen of England and dissected it, showing how varieties are propagated by means of suckers, taking off the best and those of good constitution for his use. He showed how necessary was good drainage to the habit of the plant, and illustrated the best soils, having brought with him specimens; also cautioned all against the two frequent faults of giving them too much water when young, thus causing what is technically called "damp," and impressed upon all the necessity that when the pots were getting too full of roots a change should take place. The next subject he wished to draw attention to was the "disbudding," which consisted of taking the centre eye out, and causing the plant to throw out laterals and branches to an almost incredible extent, after which it should be supplied with a little liquid manure, and allowed plenty of water, keeping it cool during the hot summer months, which prevented the soil caking round the pot, and the plant assuming a rugged and distasteful appearance. "Stopping" or "disbudding" must not be practised after August. Mr. Broome concluded his entertaining sketch by requesting all who were desirous of gaining any information on the subject before them to come to him, and he would feel very great pleasure in giving it; adding that as the time was now approaching for planting, all making purchases would find a list of

choice sorts, with their colours attached, for inspection at the Society's place of meeting in the Lorrimore Road.

A short discussion ensued; several questions being put and answered in a very practical manner, the lecturer showing that a very prevalent idea of growing from the old wood was a mistaken one, as when the July sun came upon the plant, it soon occasioned abortion; and as an illustration, he instanced Mr. Holland, of Hounslow, who kept an old plant, which grew well, "broke" well, until about the middle of July it went off, and there was an end of it, thus showing that the Chrysanthemum must be propagated by suckers or cuttings only. Questions were also asked concerning the combination of charcoal with the soil, the cure of that pest the greenfly, and the practice of potting, which were all admirably answered by the lecturer.

We must not forget to mention that Mr. Morgan, of Lincoln's-inn-fields, explained his method of treatment in the way of growing Pom-pones as standards, in a manner similar to the Rose, and which have a very handsome appearance, differing very materially from the bushy plants of Mr. Broome.

The interest which was exhibited throughout the discourse, and the crowded state of the assembly, showed with what enthusiasm the cause has been taken up. The Societies on the north side of London must bestir themselves, or they may find a formidable body of competitors in the amateurs south.

Before concluding our report we must beg to mention that the Society has received the patronage of W. Roupell, Esq., M.P., who has kindly volunteered a Silver Cup for a prize, and which will no doubt be strenuously contended for. We must also intimate that, as this lecture was delivered with a view to encourage those who were exhibitors, Mr. Broome, assisted by Mr. Morgan, will, next monthly night, proceed to show those who have small gardens how they may best decorate them when all else is dreary. After a vote of thanks to the chairman, vice-chairman, and the secretary, the meeting separated.

STRAWBERRIES.

LETTER II.

Addressed by Monsieur FERDINAND GLOEDE to the Rev. W. F. RADCLYFFE,
Rector of Rushton, Dorset.

Les Sablons, Jan. 10th, 1859.

REV. AND DEAR SIR,—I beg to apologize for not having written to you ere this, in answer to your very kind and welcome letter of the 15th of December, which has been followed by another not less interesting, received yesterday morning. You may depend upon a visit of mine, on my next trip to England, as I feel most anxious to make your personal acquaintance; and I beg to thank you in advance for your kindness in offering me hospitality.

I notice with much pleasure in the January *Florist* the letter which I addressed to you, and which I trust may prove useful to the public.

I shall always feel it to be my duty, whenever I have something of interest to say, to let others profit by it. The few sorts of Strawberries, which you name, will be forwarded to you in February, weather permitting; and I trust you will kindly accept a few other varieties which I may deem interesting; as, for instance, *La Constante*, a plant of very dwarf habit, and of first-rate excellence in every respect. Of the *May Queen* I have plenty, and shall add this also. It is the best early sort in cultivation. Mr. Nicholson, its raiser, had fruit of it ripe on the 28th of May, in the open ground. [The earliest pick here is about the 18th of June generally; last year the 14th, under my south wall. They are ten days later in the centre of the garden. I refer to Sir Harry in all the above instances.—W. F. R.] *La Chalonneuse* is one of the finest flavoured fruit known, and if it succeed well at your place it will give you satisfaction. It appears that you like musk in the flavour of Strawberries. I shall send you Cuthill's *Princesse Royale*, which here is a shy bearer, but of very fine flavour. Then *La Baron*, by Prince of New York, a very good early sort, very rich, though of middle size only. *Excellente* (Belgian), first rate, and very aromatic. *Ne plus ultra* (Belgian), very large, sweet, and extremely dark in colour (nearly black, when fully ripe). If you like, I shall send you the white *Alpine*, also a little seed of the bush *Alpine*, red and white, for border edges. [I should think they would be good substitutes for box. W. F. R.] There will of course be *Vindis*, a curious sort, of good vinous flavour, but rather small. Do you know Mr. Rivers' *Eliza*? [I have ordered it from Mr. R. W. F. R.] It is a very good sort, and I can send it along with the others. Mr. Powell, in his Strawberry article, praises the fertilized *Hautbois*, of Myatt. [So did Mr. Tiley, who sent it to me; but, owing to its being planted in the depth of winter, it bore no fruit this last year. W. F. R.] It is good, but I do not consider it so much so as the improved *Hautbois*, large flat *Hautbois*, the black *Hautbois*, *Belle Bourdelaise*, and *Marquise de Latour Maubourg*. There is still a very old sort, Myatt's *Pine Apple* [I wish Mr. Myatt would send me his direction. W. F. R.], perhaps the best of all, but a very shy bearer; still worth a place in the garden.

I shall accept with thanks the few plants of *Cinquefolia* [Myatt's, and said by a very good judge, Mr. Hecter, to be first-rate. W. F. R.] you kindly offer me, and also a few of what you call *Old Carolina*. [I saved no young plants last year; they are in lines a foot apart, alternately two and three years old next July. The three years old have been cropped once, and the two years old were purposely disfruited last year. W. F. R.] There are so many Strawberries called *Old Carolina* that I should like to find out the true sort. The *Carolina Superba* here is not delicate at all. [Tiley told me it was; but under the eaves of my south wall it looks exceedingly well. It was, however, planted this last January twelvemonth, and totally disfruited last year. I never fruit a weak plant. W. F. R.] I fear that you have not got the true *C. S.* If you like, I will send you the true *C. S.* [I believe mine to be perfectly true; Monsieur Gloede is not aware of the difference between a French and English winter. As regards my situation,

a delicate Strawberry is hopeless ; six weeks ago the wind swept off the cowl from the top of my kitchen chimney, and on Sunday last, 23rd of January, it swept off a 10-feet tin rarifier (a sure cure for a smoky chimney) off my bed-room chimney. I heard the bits of mortar come down bit by bit, then a brick or two, and at last a heavy toppling fall of a 10-feet tin tunnel on terra firma. I am so used to it, that I never moved a muscle ; but think what chance a delicate Rose or Strawberry can have here. W. F. R.] Your plan of top-dressing is certainly first rate, as it supplies manure to the roots, without disturbing them [As long as you allow your man to dig or fork among your Strawberries and Raspberries, so long will you have neither. W. F. R.], thus keeping them in excellent condition for several years. [I have grown large crops of Victorias and Keens, four years old plants, the ground being purposely trodden as hard as a turnpike road the whole of the time, the fruit when formed never by any chance fails ; of course they are enormously dressed with surface solid manure, directly after they have done bearing, and runners carefully kept off. My soil is friable loam. W. F. R.] Your suggestion, that Sir Harry may be best as an Annual, strikes me. [I have no doubt that an early July runner of Sir Harry, planted under a hot south wall, chopped, and then replaced with new plants, and a little fresh maiden earth, or old mud wall, in the very same place, will do as well with others as it has done with me. It will give you on an average 40 fine berries per plant (being 14 inches distant from each other), and 20 good enough for jam. Under my south wall it bore equally well the second year. Give it a year's run at two feet distance, and feed and water it from May till the May following, and you will have a high standing bush, covered with flowers, ultimately producing from 200 to 300 Strawberries per plant. You will then have some idea of what Sir Harry can do. Exposed in the open, and fall planted, it is not so hardy as Keen ; but plant it in May, and it will defy the most rigorous winter. As an annual it will beat any other for crop, if you plant it June or early in July. W. F. R.] This sort being a heavy cropper, it becomes easily exhausted after the first crop. Annual culture may, perhaps, be adopted with many sorts, provided you can get early runners ; plant them in nursery beds as soon as their roots touch the ground [their roots cannot be too short when planted. W. F. R.], water them abundantly, and finally plant them with a ball, where they are to fruit. [You must not squeeze the earth into a clayey knot. W. F. R.] I am glad to see that you intend paying a visit to my friend, Mr. Nicholson, in case you should go to the north. You will see Strawberries grown in a first rate manner, and make an acquaintance with a man of the right sort.

Wood ashes, soot, and peat charcoal with me also are favourite manures [I told him that I planted many of my Strawberries with peat charcoal, that I thought wood ashes good, and that I soot all my Strawberries heavily once every year at least ; and that for that reason I am never troubled with May bug, or red spider, and very little with slugs. W. F. R.], especially for pot culture. We have had fine open weather, with frequent rains up to the 31st ultimo, and since

then a pretty sharp frost. [We have had here dense fogs and ice in the roads. Keen is a little burnt in its droopy leaves; Victoria and Carolina S. are hardly affected; Ananias Lecoq is not at all affected, its leaves are thick, well formed, and of a beautiful lively green; its crowns are fine, and it is altogether the best plant I ever saw. From its fine constitution, it must be a forcer. W. F. R.]

I am now busy in placing my first Strawberries in pots for forcing. I shall tell you something about them hereafter. The *Florist* is read by many persons in France; and our French horticultural papers frequently give extracts of the same, namely, the Journal of our Paris Society. I intend writing a little pamphlet on the cultivation of Strawberries, both out of doors and forced; but I doubt whether I shall have leisure to do so before next winter. I should like to give in the same a description of all known sorts; but I want to test many of them next season, in order to be sure of what I write. Unfortunately, the two last seasons cannot be counted, as regards Strawberries, owing to the extreme drought and heat [I put on about 600 buckets per week. W. F. R.], the greatest enemies to Strawberries. The grub of the common May bug besides did sad havoc. [Give the plant soot in February. W. F. R.] This year, however, we shall be free of that plague, and my plants, having grown strong, I shall be able to study their respective merits at ease. I shall give myself the pleasure to send you, in due time, a descriptive catalogue of all the sorts. And you are at liberty to make any use you like of it; and also to ask me freely for any sort you may consider of interest to you.

In my next letter I shall give you an exact description of the new California, with my views as to the future utility of this extraordinary sort. You may depend upon getting some plants of the same. [Monsieur Gloede is, like Mr. N., a man of the right sort. W. F. R.] I shall have some trees from Mr. Rivers, when you may send, by this opportunity, the plants you kindly offer me.

I remain, Rev. and dear Sir, yours, most respectfully,

FERDINAND GLOEDE.

Without my interpolations, I think this letter will much interest Fragrarians. W. F. R.

SPERGULA PILIFERA—A SUBSTITUTE FOR GRASS.

SPERGULA PILIFERA, in its style of growth, is a neat dwarf hardy perennial tufted alpine plant, forming close compact wiry Grass-like stems, from a quarter to half an inch in height, at first erect, afterwards decumbent, clothed with closely set green bristle-like leaves, which, by permanent growth and occasional rolling, forms an unbroken level velvet-like surface of the richest conceivable verdure, remaining uninjured in severe drought or intense cold, and assumes the same beautiful verdurous tint during the winter months as in summer. The seedling plant of this highly interesting object starts into growth with a single unbranched perpendicular radicle or root, and afterwards

manifests a remarkable power of extension in its ramifying hair-like roots, penetrating to the depth of one to two feet—a fact quite sufficient to account for its enduring the opposite extremes of severe heat and cold. In addition to its hardness under the vicissitudes of an English climate, its value is considerably enhanced in its adaptation to all the varieties of common garden soil, requiring but a thin firm surface stratum of one inch ordinary sifted or broken loam. Maintaining its verdant freshness alike beneath storm and sunshine, it combines every needful feature of adaptation with economy, and an uniform aspect of neatness with the least possible care or attention. Its fertility in bloom during the month of July is equally beautiful, being at that period studded over with myriads of low compact salver-shaped snow-white blossoms, appearing not as in fancy, but in reality, the living picture of an emerald velvet green carpet, spangled with innumerable silver stars. From the preceding remarks, it will be seen, that the established growth of this plant maintains a dwarf close web of green verdure, and entirely dispenses with the extra toil and expense of mowing, its numerous small brittle flower scapes being removed by the gentlest movement of a wing or brush over the surface of the lawn, either whilst in bloom or afterwards; and these constitute the only surface growth, or tokens of its beauty, which require this operation but once a year. For small or medium-sized lawns, terraces, verges, mounds, &c., this remarkably interesting and beautiful little plant offers an object of great interest to every lover of gardening pursuits, and every lady amateur cultivator may superintend and personally manage the slight attentions required to preserve the terrace margins or velvet lawn in the highest condition. The permanent and uniform condition of dense growth, with the penetrative power of its roots, preserves it from all risks of being parched by extreme exposure in sultry weather, and the progressive accumulation of its Moss-like growth, gives an elastic pressure to the foot, much softer than the finest Turkey carpet. The seeds may be sown either in or out of pots, in the usual method observed for fine seeds, with a slight but uniform covering of soil, and placed within either a frame, cool pit, or greenhouse, using the usual precaution of shading the seed pans from intense sunlight, daily for a few hours, until well germinated; after which it may either be replanted in stores of ten to fifty plants, within dishes or large pots, or otherwise planted out in a rather shady border of the open ground, for a few weeks, and ultimately transplanted upon the prepared lawn surface in two or three plants, within one inch or more of each other; and such little plant groups may be formed at a distance of six, nine, or twelve inches apart; in such positions, the growths will progressively meet, and form the rich and beautiful surface now described. It is also admirably adapted for picturesque green tufts and edgings on avenue lines and borders, for grouping the front spaces of massive rock-work, and surfacing partially raised mounds around classic fountains and basins or artistic columns, where Grass is unavailable for mowing, and equally telling for cultivation in larger vases, in alternate effect with the silvery sheen of the beautiful *Cerastium tomentosum*, on terrace verges, and architectural approaches.

A practical proof of the success of *Spergula pilifera* for the objects above stated, may be seen in the gardens of A. Mongredien, Esq., at Forest Hill, Sydenham, Kent; where a rich and verdant plot or lawn has been established four years by Mr. Summers, the intelligent gardener there, and is now in fine condition. In the same gardens, a considerable space is allotted for further illustration of its perfect adaptation, which may be seen on application.—*E. G. Henderson and Son's Catalogue of Flower Seeds, &c.*

[We have seen this plant, and have little doubt that it will make a compact and excellent lawn—soft and elastic to the tread, and even in surface. Its not requiring any mowing is a great point in its favour].

LIFTING AND RE-PLANTING OLD FRUIT TREES—CONSIDERED DEGENERATING.

ALLOW me to give the results of my experience, with twenty old Apple trees and five Pears, that were considered by my employer and others to be wearing out. When I commenced my service—June, 1855—I found all the trees in a horrible plight—gum, canker, and American blight being the order of the day; and my employer, on going through the grounds with me, a few days after, remarked that he did not know what was the matter with them. He said he got but little fruit from them; and what he did get, was spotted, cracked, and gritty. He had not an Apple or Pear fit for use by November, and that his Peaches, Nectarines, and Apricots, were still worse. Every five or six years he had to replant young trees, for they died off, half at a time, and the little fruit they bore was watery. This was the account given of the trees, and I began to fancy that I had got my head in a hornet's nest. I, however, at once discovered the cause of complaint, and I am happy to say have successfully removed it. My Peaches are now excellent, with no appearance of degeneracy; and I may say that my Nectarines and Apricots have been equally fine and abundant. So much for wearing out.

The Apples and Pears had been planted thirty years; they were thirteen feet high, and had been trained goblet fashion. When I proposed to lift and replant them in some other part of the garden, I was laughed at. However, I at last got consent, and they have since surpassed my employer's most sanguine expectations. At this time they are in good health, and are literally covered with blossom buds. The following is the way in which they were managed:—About the end of October, 1855, I was fortunate enough to have three weeks' fine weather. I commenced operations in good earnest. In the case of Apples and Pears, I had all old Moss removed, and all old loose bark around cankered branches; this done, I had holes taken out, about fourteen feet apart, and the same from row to row; the soil was removed about one foot deep, and then I had these holes filled up, to within three inches of the ground level, with coal ashes and stones, or any old rubbish that I could get, that would act as drainage: this finished, I had the holes filled with a part of the soil

that was taken out. I then had the trees removed with as a good ball as I could get to them ; and as each tree was removed, it was brought as expeditiously as possible, and placed in the centre of the places that had been prepared for its reception. The remaining soil that was thrown out of the holes was carefully placed over all the roots ; but all roots were first pruned with a sharp knife, and nicely laid out in their places, and each tree was well secured against wind. The weather still continued fine after they were removed, for about ten days ; and the shoots they made that summer measured three feet long, and were growing very fast at the time ; the tops of these shoots beginning to droop, I thought it advisable to give them a dewing all over with the garden engine, every morning, till rain set in, and after that, it was discontinued altogether. By the end of November, the leaves were all off the trees ; they had made long shoots, which appeared well ripened, except just the tops. I therefore thought it advisable to commence the necessary pruning at once ; these long shoots that were produced from the tops of the trees were pruned back half of their length ; the others produced from the spurs, which were not quite so long, were pruned back to within three inches from where they started. At the same time, all old dead spurs, or such branches as were badly cankered, were carefully removed ; but every wound made, no matter how small, got a good coating of white-lead and oil, mixed and well *rubbed* into the cuts ; this was done to keep the air out. I was careful, however, not to remove more large branches than absolutely necessary ; and all the old cankered branches that remained, had a good lump of equal parts cowdung and clay, well tempered, pressed, into and around all the cankered parts. A piece of stout canvas was now placed around the clay and cowdung, and a couple of ties were passed round, to guard against future accident ; this clay and cowdung, I had placed around the cankered branches, to keep out air from the diseased parts, and also to induce the bark to heal over them, which it has done, to my entire satisfaction ; after this, each tree had a good coating all over, as opportunities offered, with the following mixture—all being finished before Christmas :—To three parts clay, I added one of lime, and a little water, sufficient to give it the consistency of a very thick paint. I then added a pint of train oil to over two gallons of this mixture, and a quarter of a pint of turpentine to four gallons of the above. I then well mixed up all together, and a little water was then added to thicken it ; every crevice was well searched out, and this mixture applied ; I found nothing better for applying it with than a painter's brush. After this was completed, I had about six inches of equal parts dung and leaves placed all over their roots. The dung and leaves were about three parts rotten ; and over this I placed a little soil to keep birds from scratching it about. Notwithstanding the very severe winter that followed, I had but three deaths among them—two Apples and one Pear, out of twenty-five trees. The following season, 1856, as soon as the blossoms made their appearance, I had them all removed, with some sharp-pointed scissors, and they had no more attention beyond giving a little water to their roots and branches in dry weather, applied with the garden engine. They broke into leaf weakly at first, but as the season advanced, they

showed signs of more vigour. By the beginning of November, they had ripened what little wood they made, well, and were full of blossom buds; they then got what little pruning was necessary, and at the same time I had all the dung and leaves removed that had been placed on the top of the roots the year before. Under this covering, I found the soil literally matted with fibrous healthy yellow-looking roots, on the top of which I placed two or three inches of charred refuse, and on the top of that about six inches of good sound loam. The next season, 1857, they bloomed well, and set an immense crop, but they got well thinned, no more being left than I thought they could bring to perfection, which they did, and for size and flavour they could not well be surpassed, not a crack or spot being about them. The last season, 1858, they again produced a very heavy crop—eighteen bushels of Apples and four of Pears—all fine rosy cheeked shiny fruit, as any one could wish to see, with not the least signs of degeneracy about them. My employer tells me he has now more fruit than he ever had from all the trees in his garden. This is the result of my experiments with degenerate trees. But if people still *persist* in planting, and what is still worse, going to the trouble of making up borders, which when done, are only fit to grow gourds in, then we shall have disease in all its forms, attacking our trees, and nothing but disappointment can follow. Let them replant in pure loam, and we shall soon have different results. I must now tell you what I intend doing with these trees. If they should show the least signs of over luxuriance, I shall root prune, and fill up the trench with pure loam; but if, on the contrary, they should show signs of weakness, I shall top dress with pure loam, and apply copious draughts of liquid manure. Through the summer months, in this way, I can regulate their growth at pleasure, and supply fresh food when they require it.

C. W. C.

NATIONAL DAHLIA SHOW.

WITH Mr. Perry's remarks relating to the management of the National Dahlia Show, I quite agree, and I think that one reason why it should not be held in London is, that London is not, by a long way, the central town of England. No doubt, southern growers would prefer St. James's Hall to any other place, on account of its easy accessibility; but the northern and midland growers, on the same ground, have good reason to object to it; and I see, by your list of subscribers, that many have contributed, who, from the great distance they reside from the metropolis, could not be expected to visit the show. Mr. Perry's proposition respecting prizes for seedling Dahlias cannot fail to give satisfaction—and will, if carried out, be of great service to many situated like myself, who cannot afford to buy all the new Dahlias advertised each year; and from not knowing which are the best and most constant varieties, usually leave my orders until the second year, when better opportunities are afforded of judging what will best suit. Now, if six blooms of any seedling should be shown, and beat a known variety of

the same colour, already out, every grower would be sure to purchase it, as both its constancy and qualities would have been thoroughly tested. I am at present so situated, that I rarely see a London show, and am obliged to gain my information from published reports. I should be pleased to give half-a-guinea for a plant of any new Dahlia, that I knew would beat the old ones; and should be fully satisfied with such a test as the one proposed.

A PROVINCIAL EXHIBITOR.

HORTICULTURAL SOCIETY.

FRUIT COMMITTEE.—At a late meeting, Mr. Edmonds in the chair, the committee resolved that prizes of 20s. and 10s. be offered on this occasion for the best Winter Nelis Pears, in dishes of six specimens, to be accompanied with a schedule of particulars relating to the circumstances under which the fruits were produced, and the announcement of their intention having been responded to, the prizes were accordingly awarded.

First prize to Mr. Cox, gardener to W. Wells, Esq., Redleaf; second to Mr. A. Ingram, gardener to J. J. Blandy, Esq., Reading.

In Mr. Cox's schedule it was stated that the locality where the fruit exhibited by him was grown is in West Kent, about forty miles from the sea in a direct line; climate generally humid; exposed to south-west winds, but sheltered from east, north, and south; the soil rich garden earth, eighteen inches deep, on a subsoil of yellow clay, inclining to marl, with veins of iron and fine sand, many feet deep; the ground slopes to the south-west, at an angle of about 8°. The fruit was produced on a tree trained horizontally against a south wall, about twelve feet high; the tree, about thirty years old, and in good healthy condition, is on the Pear stock; the only pruning it requires is, to break off all the breast-wood when in a young state. The fruit exhibited was produced on branches which were grafted up the side of the main stem twelve years ago, and have not failed during the last ten years to bear a good fair crop. Mr. A. Ingram, the next successful competitor, stated that High Grove, near Reading, is considerably elevated; the soil stiff, inclined to clay; subsoil gravel. The tree, planted in a border sloping a little to the north, is fan-trained against a north wall, about thirteen feet high; but, a peculiarity deserving of notice is, that after reaching the top of the wall on the north side, the branches are trained downwards in a perpendicular direction on the south side, and from the portion of branches trained in this aspect the Pears exhibited were gathered on the 19th of October. Mr. Ingram further mentioned that the fruit produced on the south side is always larger than that on the north side, but that the quality of the latter is also good. The tree is old, but healthy and vigorous, and always bears well; it is trained on the spur system.

Messrs. Webber and Co., Covent Garden, exhibited Winter Nelis Pears, but not for competition. They were remarkably fine, large for the sort, and of excellent flavour. From the schedule accompanying

them, it appeared that they were grown at Isleworth, the situation rather humid, and sheltered from the north and north-east. The soil is rich mould, two to three feet deep, gravelly sand below, and well drained; the surface flat. The tree is on the Quince stock, and is fan-trained against a south wall, eleven feet high, or nearly so; it has been nearly ten years in bearing, is vigorous, and has produced excellent crops during several years. By the same firm, and from the same locality, were exhibited large specimens of *Ne Plus Meuris* Pears, from a south-west wall. The tree, nearly eight years in bearing, is on the Quince stock, and trained horizontally. It is healthy, and a moderate bearer.

A communication was read from Mr. Spary, of Brighton, detailing his mode of grafting Vines. It was intended to have accompanied a bunch of Muscat Grapes produced by the graft, and exhibited at a previous meeting, but arrived too late. The Grapery in which the Vine is growing was built in 1855, and planted on the 18th of April with Black Hamburg and one Trebbiana. After two years' growth they produced an excellent crop; but the owner wishing to have a Muscat substituted for the Trebbiana, Mr. Spary grafted its stem with that and the Golden Hamburg, the wood of the latter being much the smaller in size, in consequence of the scarceness of that sort. He stated that on the 1st of April, 1858, the existing Vine or stock, being at that time in full leaf, was cut two feet four inches from the ground, and a cleft made in the top, according to the usual mode of cleft grafting. The Muscat scion was inserted on the east side, and on the west a small graft of the Golden Hamburg, the former being three inches long, and having one eye, and the latter two inches. The junction was bound over with matting, then covered with grafting wax, and over that was put a coating of grafting clay, and a covering of Moss. Proper attention was paid to syringing twice a day with the other Vines. In this state the grafts remained for three weeks, at the end of which time the Muscat began to grow; and in the first week from that time it grew four inches, in the second twelve, in the third twenty-four, and in the fourth thirty-six. At this stage it was found requisite to remove the Moss, clay, and wax; and a slack bandage coated with clay and covered with Moss, to retain proper moisture, was substituted; all which were taken off a fortnight later. The fifth week the scion grew thirty-six inches, the sixth week thirty, and the two following weeks five feet nine inches; the whole length of the cane being eighteen feet one inch. In addition to this growth, it threw out two or three feet of lateral shoot at the top. The girth of the cane is as follows:—At 1 inch from the graft $3\frac{1}{2}$ inches, in the centre $2\frac{3}{8}$, at the top $1\frac{7}{8}$ inch; the whole of the wood is well ripened. In addition to this extraordinary growth, Mr. Spary stated that the laterals showed fruit as high as the tenth or twelfth eye from the graft, but all were taken off except two bunches on the ninth eye, those being left as an experiment.

The cane of the Golden Hamburg grew with the same rapidity as its neighbour, but in consequence of the smallness of the graft it did not reach the same size, the following being its dimensions:—Length 14 feet 6 inches, girth at one inch from the graft $2\frac{1}{8}$ inches, in the

centre $1\frac{1}{2}$ inch, at the top $1\frac{1}{4}$ inch, the wood throughout being well ripened. The operation having been very successful, proving that great advantages may be derived from grafting where Vines are established, but a substitution of other sorts is desired, Mr. Spary thought a report of it might be interesting.

VERBENAS.

WHAT Mr. Ruskin is to painting, or the *Times* to politics, is a certain canny Scotchman who writes for the *Cottage Gardener* to floriculture, very shrewd, very original, but at the same time very crotchety, and what is called at college very "bumptious." You must not, if you pretend to know anything, differ from any of these gentlemen. So long as you adore Preraphaelitism, think perspective of very little matter, and can admire the painting of a mouse's whisker as something very precious, Mr. R. is your man; if you write to the *Times* of their world-wide circulation, immense influence, &c., &c., you may, perchance, get your letter in; and so, if you consider our Scotch friend's experimental garden, and plans and directions, the very acme of gardening, you may possibly be allowed to know something of flowers, and not worthy of being gibbeted as an ignoramus; but woe betide you if you differ from them. And yet, with this before one's eyes, I am about to do so. Mr. Ruskin I must leave to the tender mercies of "Maga;" the *Times* is able to fight its own battles; while I, a poor obscure scribe, any one of whose plants would be pronounced by the coryphæus of the *Cottage Gardener* as rubbish, must undertake to find fault with him, and enter the lists with a combatant who will, I doubt not, if ever he sees this, think of me, as Prince Hal did,— "that *poor creature*, small beer." But, having had a little experience in the matter I write about, as well as having had access to some of the best growers of Verbenas in England, I venture to give a few remarks on them, even though in so doing I find myself in opposition to the statement at p. 411 of the last volume of the periodical referred to. In so doing, I must be brief. I have not the knack of giving a homœopathic globule of information in ten gallons of water, but wish to go to the point at once. But first, let me say what I believe constitutes a good Verbena in these days. In so doing, I must only repeat what I have before advanced: the plant ought to be vigorous, the foliage not inclined to mildew, the truss ought to be large and well filled up, the individual pips should be as nearly round as possible, the colour should be *decided*, and, if striped or variegated, the variegation should be clean and well marked. I do not think that novelty or anything else ought to induce one to tolerate a Verbena deficient in any of these qualities. Time was when we might have borne with them; but the number of seedlings now raised completely takes away any excuse for harbouring such "varment." As a great number of the new seedlings come from France, and they find their way to various growers, it is some time

before one is able to ascertain what they really are ; thus, last year, it was not till late in the season that an eminent grower had introduced into his stock, one of the very best in growth, which had been in another grower's hands for two seasons—in the paper to which I refer a list, and a tolerably long one, is given, which, though not from Mr. B. himself, yet as it is endorsed by him, and as the giver of it is one who defers to his opinion, it must be right ; and yet from that list, I find some of the very best *Verbenas* entirely omitted, while some there I should be very sorry to recommend any one to try. During the very hot weather of last August I paid a visit to some large growers of *Verbenas*, besides having access at all times to the garden referred to in the last number of the *Florist* ; and, as the result of my observation would recommend any who wish really to improve their collection to add to it, the following ; I say nothing about older sorts, for I see no reason to alter my opinion with regard to the list which I gave in the *Florist* some time ago, and in mentioning these, do not wish to consider myself by any means an infallible guide.

Leviathan, a large free grower of the Standard Bearer habit, a very decided colour, approaching to blue ; but a blue *Verbena*, though often advertised, we have not yet ; truss very large and well filled up.

Euterpe, bright crimson, very pure in colour, and large.

Cleopatre, brilliant maroon, or amaranth, as it is called, very distinct, a colour much wanted.

Calliope, orange scarlet, yellow eye, one I think likely to please.

Lady Seymour, rosy lilac, large yellow eye, very good even in hot weather.

Beauty of Castile, a rich rose, with white eye, a brilliant and effective flower, one of Mr. Breeze's seedlings.

Cherub, scarlet vermilion colour, yellow eye, an excellent grower.

Miss Breeze, fine crimson, brilliant, effective, yellow eye.

Topsy, rich maroon, a good colour, and not inclined to burn.

Emperor, bright crimson, deep plum coloured centre, a distinct variety.

Pactole, lilac, of a deep shade, with light crimson or carmine centre.

Cardinalis, dwarf, dark scarlet, a good bedder, to be planted near the edge.

Souvenir, in the way of *Attraction*, but larger and finer altogether.

Lady Havelock, a beautiful bright rose, with a lemon eye, and stands scorching well.

Eastern Beauty, another of Mr. Edmond's yellow-eyed beauties, of a deeper shade of colour than the preceding, and likely to be a favourite.

Madame Matras, a French kind, introduced by Mr. E. G. Henderson, something in the way of *Souvenir de l'Exposition*, but larger and finer, most free flowering, and a very excellent bedder. I think it the best of the light varieties with dark eye.

I might add a few more, but these will, I think, be a sure gain to whoever has them. Of course season may have something to do with it ; but *Verbenas* always do well in a tolerably moist summer, and as these stood the trying season of last year, I have very little doubt of their bearing any other kind of weather. I believe that Mr. Edmonds is again in the field with some new seedlings of a striking character, among which are some remarkable scarlets, with clear white eyes. Should they in other respects equal those he has already sent out, they will be a decided acquisition. I hope next month to be able to say something on new bedding *Geraniums*, more especially that class so rapidly increasing in estimation—the variegated varieties.

Deal, Feb. 10.

D.

BRITISH POMOLOGICAL SOCIETY.

At a late Meeting of this Society, Mr. Hogg in the Chair, six gentlemen were elected members. Mr. Davidson, the Secretary, gave notice that he desired to resign his office at the next annual meeting, when the Society could, according to the rules, appoint a successor. His resignation was accepted.

Some diseased Apples having been sent to Mr. Graham, of Cranford, for examination, his report was read to the meeting.

Of fruit exhibited much was below mediocrity; it was therefore resolved:—"That in all future competitions, when quality is the point intended to be rewarded, the premiums will be withheld, if one-third of the fruit be considered of decidedly inferior merit."

Two guineas and one guinea, for the best and second-best collections of six varieties of Late Dessert Pears. Open to growers only.

Three collections were exhibited in this class.—J. Moorman, Esq., sent from his garden at Bexhill, Sussex, situate half a mile from the sea, much exposed to south-west gales; soil, light loam, three feet deep, over undrained clay; the following kinds from healthy young trees, on Pear stocks, growing against a south-west wall:—Winter Nelis, large and well grown, very juicy and melting, sweet and generally excellent in flavour;—Knight's Monarch, juicy, melting, rich, and aromatic, but but somewhat depreciated by too early gathering;—and Old Colmar, very sugary, promising to be delicious, but scarcely ripe. Also, from his garden, in Portland Place, Clapham Road; ground, flat and sheltered; soil, strong rich mould, over undrained gravel, the following kinds:—Jean de Witte, from a south-west wall; large for the kind, and in excellent condition, very juicy, melting, sweet, and fine-flavoured; Beurré d'Arenberg, from an espalier; melting, but small and bitter in flavour; and Ne Plus Meuris, from Espalier. Melting, but only moderately juicy, and not high-flavoured. The first premium was awarded to this collection.

Mr. Cox (gardener to W. Wells, Esq.), Redleaf, sent a collection from a garden exposed to south-west; climate, damp; soil, twenty inches of rich garden mould, over yellow-marly clay containing veins of fine ferruginous sand, damp, but drained. The fruit of all the kinds were large, healthy, and good in appearance and colour; in other respects they were as follows:—Winter Nelis, from south wall, juicy, melting, and excellent; Easter Beurré, from south wall, half melting, but mealy;—Chaumontel, from west wall, over ripe and bitter.—Passe Colmar, from south wall; juicy, but thin and watery in flavour, deficient in sugar; scarcely ripe. Old Colmar, from west wall; past appeared to have been good and melting, but not juicy; Vicar of Winkfield, under the name of Léon le Clerc, from a standard; juicy, but not at all melting, To this collection was awarded the second prize.

Mr. Wighton (gardener to Lord Stafford), Cossey Hall, Norfolk, sent a collection containing Knight's Monarch, from wall and espalier, very juicy and rich-flavoured, but shrivelled from having been gathered prematurely;—Winter Crassane, not juicy; Easter Beurré, large, but flavourless; Beurré Rance, unripe, but sweet and promising;—Susette

de Bavay, half-melting, but harsh in flavour; also, a variety called Winter Bergamot, small and juicy, but of no particular merit; reported to be common amongst market gardeners; but not recognized by the members present; and a variety without name, which had every appearance of being Swan's Egg, although so much out of season.

Of other Pears sent for examination, the following were the most interesting:—

Beurré Rance, by Henry Webb, Esq., Reigate, from a standard, on loamy soil, over fullers' earth. Fruit medium-sized for the variety, melting, juicy, very sweet, and high-flavoured.

Easter Beurré, by Mr. John Brown, gardener at Bentworth Rectory, Alton, Hants, from a south-east wall; soil, strong loam, over tenacious clay. The fruit was very fine in appearance, half-melting, but not high-flavoured. Mr. Brown attributed this to his not having thinned the fruit to the same extent as he had usually done,—mentioning that, in the previous season, they were very excellent, and lasted in use from the end of December to the first week in May.

Josephine de Malines, by Mr. Thomas Rivers, from a pyramid on quince stock. Medium-sized, very juicy, melting, rich, delicious, and aromatic.

Grapes.—Mr. Thomson (gardener to the Duke of Buccleuch), Dalkeith Palace, Edinburgh, sent a dish of Lady Downe's Seedlings, a variety not much known, but considered by the meeting to be worthy of more extended cultivation. It is evidently of the St. Peter section. Bunch about eight inches long; shouldered; appears to be a very fine setter, and to require much thinning; berry medium-sized, nearly round; skin moderately thick; flesh very juicy, sweet, and vinous. Mr. Thomson reported, that the bunch sent, which did not exhibit the slightest appearance of long keeping, by loss of bloom, or shrivelling in either berry or stalk, "was ripe in August last," and adds that, "he finds no Grape hang so long and combine so many good qualities."

Messrs. Webber and Co., of Covent Garden, exhibited good examples of retarded Black Hamburg, which had been ripe since September last; the berries of which were still plump, although their stalks gave evidence of the long time they had been kept.

Seedling Apples.—Mr. G. Wolsep, of St. Andrew's, Guernsey, again sent specimens of his Seedling. Though past its best, it was considered to have maintained the opinion formerly expressed regarding it; its general character approaching that of the Golden Harvey. Mr. Wolsep reports, that the original tree is twenty years old, moderate in habit of growth, shape of head rather globose, and thinks it will prove a good dwarf prolific kind for small gardens.

Mr. Oxley (gardener to Miss Sitwell), Spondon, near Derby, sent a Seedling, called Pretty Apple, apparently possessing the properties of a good late Kitchen Apple, being large, small cored, and acid. Reported also to be a great bearer, of healthy constitution, and compact habit. (On being baked without sugar, they are found to be pale brown in colour; tender, but not breaking into pulp; not syrupy; sweetish subacid in taste. The fruit had, however, been gathered before they were ripe, as stated by the sender, and were not in condition.

Dr. Davies, of Pershore, brought again his seedling, Taleisin. (reported on last year); and promised again to send a bundle of scions for distribution,

Mr. Annandale (gardener to J. R. S. Carnegie, Esq., Seaton House, Forfar), sent a Seedling, raised by Mr. John Gowans, market-gardener, Arbroath. This was considered a very fine and promising late Kitchen Apple. Sound, acid, and heavy, much resembling Minchall Crab. Mr. Annandale is requested to send it again next meeting, and, if possible, with the variety referred to from the same district.

NOTES ON THE MONTH.

AFTER one of the finest autumns and winters ever remembered, we are now on the eve of March without even a snow-storm in this district, and, with the exception of the rather sharp frost at the end of November, without frost. The winter has, in fact, been most remarkably mild, and the quantity of rain which has fallen since February commenced very great. There are, at the present time, indications of a clearer sky, prognostic of frost. Apricots, and in some places Peaches, are in bloom, and some deciduous trees, as the Elm, Willow, Birch, and Poplar, show that the sap is on the move; the buds are becoming turgid, and would very soon burst their casements, should the present mild weather continue. Garden shrubs, as Lilacs, Ribes, Roses, &c., have commenced their growth. What the coming six weeks may produce, no one can foresee; but, to all appearance, the fruit crop will be in a perilous position, unless the wind veres round to the *east*, and we get a good month's *easterly* wind and cloudy sky, which may keep fruit trees back, and perhaps save the crop, which, notwithstanding the fruitfulness of last season, again gives promise of being abundant.

The oft repeated remark that a good crop of hedge-row fruit indicates a hard winter, turns out to be a "popular fallacy," judging from the season just past; for never were there a finer *show* of hips and haws, nuts, and acorns; and yet we have had perhaps the mildest winter on record. The winter has been a favourable one for the poor labourers, who, however, by what I see in the papers, have had their wages in places unduly lowered, a short-sighted policy, but which is not a subject to discuss here. All kinds of garden vegetables are unusually abundant, and Potatoes quite a drug, good Potatoes here being worth only 5s. per sack of 240 lbs., at which price they must entail heavy loss on the grower. We hear of distilleries for Mangolds and Beets; can no one try what the Potato can produce? I should say, that at the price quoted, several products may be obtained by distilling the roots, which would be profitable, and open up a new field of demand for this useful root.

The demand for a vegetable substance capable of being converted into paper is engrossing public attention. What is wanted is, an article which can be obtained, when cut and dried, at a cost not exceeding £4 per ton. It is now well known that paper can be

manufactured from a great variety of products. But vegetable fibre, in one shape or other, is almost universally employed; cannot the half-drained bogs of Ireland, and many waste grounds in England, be turned to account to supply the fast increasing demand? Rushes, and indeed any quick-growing plant, with not too fleshy foliage, will answer; and it remains to be proved whether the fallen leaves of autumn may not yet be made conducive to this end.

Having looked over many of the Catalogues and Lists of the present spring, I observe how rapidly novelties increase. Surely, we shall this season see some new colours imported into our parterres and flower gardens. What seems most wanting are, delicate blues, oranges, and pinks, to soften down the ever recurring blues, reds, and yellows. G. F.

CALENDAR FOR THE MONTH.

Auriculas.—These will now be much more tender, from the amount of young growth they have made. Protect from frost, and water more frequently, as well as more liberally; weak liquid manure once a week will strengthen the trusses now being thrown up. Give plenty of air, and fumigate occasionally; greenfly generally appears with the young growth.

Azaleas and Camellias.—Forced Azaleas, which have done blooming, should have all the decayed flowers picked off; and if thrips or scale infest the plants, let them be well cleaned by washing them with diluted tobacco-water, to which, in case of scale, may be added a small quantity of soft soap. The roots should be next examined, and if the pots are either very full of them or these not in a satisfactory state, let all the old soil be first shaken from the roots, and then wash away the rest by working the ball backwards and forwards in a pail of water. When the remaining soil about the roots has dried a little, pot in smallish sized pots comparatively, in fresh sweet compost (see back articles on Azaleas), and place the plants where a slight fire-heat is kept—as a fresh started Vinery or Peach-house—and they will quickly commence growing, and ripen their wood early for forcing another season. The above remarks as to root treatment apply equally to Camellias, or indeed to any kind of shrubby greenhouse plants, when their roots are not in a healthy state, or where it is desirable the size of the pots should not be increased at potting time. Keep Azaleas for late blooming as shaded and cool as possible, or the present unprecedentedly mild season will bring them into bloom before they are wanted. Cultivators will find north houses fully as useful as south ones, for the purpose of retarding, which is as often wanted as forwarding into bloom. Let the whole stock of Azaleas, old and young, be well cleaned from insects before growth commences. Stocky old plants of bad kinds should be headed back, to make young wood for grafting by-and-by; these make fine specimen plants in quick time, when properly done.

Calceolarias.—Any plants struck during the winter should be repotted into four-inch pots to succeed the first plants. If not so large

they will make compact handsome bushes for decorating the conservatory or greenhouse—for bedding out it is not too late to strike cuttings of the best shrubby kinds for the purpose; such as *Aurea floribunda*, *Prince of Orange*, *Yellow Prince of Orange*, *Pallida*, *Beauty of Montreal*, *Kayii*, *amplexicaulis*, *viscosissima*, and *coccinea minor*.

Carnations and Picotees.—The season has been such that, early as it may appear, the strong growing varieties should now be potted, as such will be getting pot-bound in the small pots, and the sooner they have an opportunity of getting established permanently in the soil they are to bloom in, the finer it may be expected, as well as a larger increase of stock. Pot firmly and secure any long plants with small sticks; if there is any greenfly on the plants, give them a good smoking with tobacco or tobacco-paper before taking them from the pit. The latter end of the month will be soon enough for planting out in borders. We advise expedition, as being in favour of large blooms.

Cinerarias.—As the spring is now advancing, great care must be taken with large specimen plants, to see that they do not suffer for want of water, for much will depend on this, in keeping good foliage round the pot. Tie out as wide as possible, keeping the shoots as near the surface of the pot as convenient without a risk of breaking them. Keep them as thin and as near the glass as possible, and syringe until in flower every favourable opportunity, as this will tend to assist the foliage, and develop the young bud. Give weak liquid manure occasionally. Look to seedlings as they come into bloom, and select the brightest colours for the ensuing season. Sow in a shady situation for early autumn flowering, and as soon as large enough transplant and keep in a cool shady situation through the summer. Prepare compost by throwing up into a heap good turfy loam and partly decomposed stable manure.

Conservatory and Show-house.—We remember nothing like the mildness of the season, up to the time we write. Plants not usually blooming till March and April are now in full beauty, and the conservatory will be gay with *Acacias*, *Camellias*, *Azaleas* (Chinese and forced), and all the plants mentioned under the head of forced shrubs in our last notice, to which may be added bulbs, *Mignonette*, *Violets*, stove plants, and *Ferns*. Do not, however, overcrowd the house, or you will materially damage the permanent plants by overdrawing them, and inducing the sides and lower parts of the plants to make weak growth, or perhaps die altogether. Temperature as last month.

Cold Frames.—Push on with all kinds of propagating, so as to have plants established somewhat by the beginning of May, that they may be hardened before finally planting them. Pot off what autumn struck cuttings yet remain in store-pans, particularly *Geraniums* and the like. Sow seeds of *Stocks*, *Lobelias*, *Neiremborgias*, *Maurandias*, and other greenhouse plants for turning out; also of the many varieties of *Canna* or *Indian Shot*, which as foliaged plants make admirable beds, and for mixing with other things. Consult the many catalogues; for among the things advertised as new many are worthy a trial. And who is not ambitious to have a new bed in his garden? Attend particularly to fine-foliaged plants and ornamental Grasses, which make interesting

additions to ordinary flower gardens, by infusing variety. Propagate Dahlias, Salvias, Bouvardias, tall Lobelias, and other similar plants by the young shoots thrown up from the roots, or by making cuttings of the roots themselves.

Dahlias.—March is the best month for propagating the Dahlia; cuttings struck now have time to make fine plants, yet are not too early to become stunted; therefore propagate freely, and when sufficient cuttings have been taken, divide the roots, to make a few strong early plants. Sow seed towards the end of the month, in a brisk heat.

Forcing Ground.—Potatoes, of well known early kinds, as the Early Oxford, Ashleaf, and Royal Dwarf, may now be planted freely in frames, over a gentle heat, as the disease will not affect them at this season to the extent it often does earlier; let the soil be sandy and free from manure. Thin out Carrots and Radishes sown in frames; and prick out into low pits or frames spring raised Cauliflowers, Lettuce, and Celery, for future transplanting. Keep up a succession of forced Kale, Asparagus, and Rhubarb. It will save a great deal of trouble and risk from the attacks of insects, if a pit or two could be devoted to the culture of the French Bean, instead of growing them in vineries, &c. The pits, however, must be provided with some means of heating. The best forcing varieties are the Newington Wonder, and Early Mohawk.

Flower Garden.—A good time this (if not done in autumn), for taking up and dividing the roots of perennial herbaceous plants. Permanent bulbs must on no account be touched now, as they will be commencing to grow. Phloxes, Asters, Delphiniums, and other plants of this class, when the roots have grown too large should be divided and the best portions planted again in fresh soil; due regard should be paid to the height and colour of each at planting, that they mix well as regards colour; and where the beds can be seen from all sides, the tallest should be arranged in the centre, falling gradually to the edge. Mark some of the best Polyanthus and Auriculas for seed; these and Hepaticas when done blooming, may be divided and replanted for increasing the stock, and in the same way Russian Violets and common Violets may be treated. A few hardy annuals may be sown for an early bloom, and those sown in autumn should be well thinned out, to allow them to stand singly, when the bloom will be much finer. Finish the pruning of Roses, except the Tea and China sections, and a few of the Gallicas, Provins, and Alba classes, which may be left unpruned till April, to run the chance of a very late bloom. Rose beds on poor soil should be well manured.

Fruit (hardy).—The remarkable mildness of the season has brought the Apricot, and in some places the Peach, into bloom. This is an unfortunate state of things, for in all probability we shall have a winter of more or less intensity, when the coming crop will be placed in the greatest jeopardy. The only plan to adopt is to keep off the covering while the mild weather lasts, but have your protection, in ample quantities, ready for use when wanted. Wash Apple and Pear trees, whose stems have become mossy, with hot lime and water, to which add a little salt.

Greenhouse (hard-wooded plants).—These must now have more air and be set tolerably wide apart, to prevent drawing. Before the spring growth commences will be a good time to repot any plants requiring it. Mind in potting that the old ball is tolerably moist, and let the compost used be moderately dry, that the plants may be potted firm, arranging the surface of the soil so as to allow the water to pass through the old ball. *Soft-wooded plants.*—Any Calceolarias, Cinerarias, or other soft-wooded plants not yet in their blooming pots, should at once be shifted into them; also late-struck Pelargoniums or Geraniums for a late bloom. Japan Lilies, Tritonias, &c., now commencing to grow should have a little water. Frames are now the best place for this class of plants. Sow Balsams, Cannas, Cockscombs, and the autumn-blooming Tropæolums, &c., in a little heat for decorating the greenhouse after July.

Kitchen Garden.—Every means must now be taxed to keep pace with the season. All crops of summer vegetables may now be either sown or planted; a succession of Peas and Broad Beans should be put in about every fortnight, sowing two sorts at each time, This will produce an uninterrupted supply, allotting the quantity sown to the demand. It would be useless recommending sorts, seeing seedsmen's catalogues contain such descriptive notices of each, that each may select for himself. Sow Onions on well prepared ground, made tolerably firm if at all light. Spinach, Radishes, and Lettuce should be sown every fortnight in small gardens. Horn Carrots do well mixed with the Radishes, as these may be drawn out, and the Carrots follow. Lettuce delights in rich and rather heavy land; the autumn planting should have the soil stirred between them, and get a dressing of soot. Plant out autumn Cauliflowers on a warm rich border; also a good piece of Cabbage for a main crop; and give plenty of air to Cauliflowers under glasses, and water with liquid manure. The main crop of Potatoes should now be planted in select dry soils and open situations, and avoid fresh or rank manure.

Melons and Cucumbers.—These latter should now have every attention, as they will be growing and bearing freely, if grown in Pine stoves in pots. They will require liquid manure occasionally, and frequent surfacing to encourage the roots. Thin out the vines, and do not allow too many fruit to swell off at the same time. Cucumbers in frames must have the required heat maintained by linings of warm dung. Earth up the hills as the roots advance, and train the vines over the surface, stopping them at a joint beyond the fruit. Ridge out succession crops. The night temperature should not be less than 68°, with a rise of 12° by day, giving air on all opportunities. The bottom heat should be kept steady, at from 80° to 90°. Melons require a heavy loam, or rich marly soil, on which they thrive fast, and escape many evils they are always subject to on lighter soils; therefore this description of soil should be selected if possible.

Peach-house.—Look at last month's directions. When the shoots are long enough for tying in let it be done at once. Night temperature 58°, day 75° to 80°.

Pelargoniums.—Under the increasing influence of solar light they will require a more liberal supply of water, particularly the plants

intended for the early exhibitions, and also those that are well established in their blooming pots. Now they should occasionally have some liquid manure water. As the days lengthen an increase of temperature may be allowed, and air should be given early on fine bright mornings; but the house should be closed early in the afternoon. Attend to the training of the shoots, to admit the light and air. The young stock should have every attention to training, the stopping back of any strong shoots, being kept entirely free of insects, and encouraged by every possible means to make a vigorous and healthy growth. Keep the plants clean of dead foliage, and especially the fancy varieties, for if they are allowed to remain long on the shoots, they often cause them to damp, and spoil the shape of the plant. The June and late flowering plants, as they progress in growth, should be kept well tied out, according to instructions previously given.

Pinery.—Fruit ripening should be well exposed to get it a good colour, and a rather drier atmosphere kept; succession plants, if active; the roots, may have a shift towards the end of the month. Use pure loam, or loam and peat, with a little bone dust mixed with it; but be sure that the roots are on the move before you pot, or if not give them a little extra bottom heat to forward them.

Pinks.—Top-dress without loss of time, if not already done, using half-rotten manure mixed with rich loamy soil. Particularly mild as the weather has been of late, those planted early, as recommended by us last autumn, look very strong and healthy. From the remarkable season we have experienced, a fine bloom is very probable.

Tulips.—Protect the bed with canvas, frigi-domo, or mats, whenever there is severe frost, or excessive rain; but, as a rule, keep it covered as little as possible, as doing so obviously excites a weakly growth. Stir the surface of the soil between the bulbs as soon as it is in the best state for the operation, *i. e.*, between wet and dry. All the beds we have seen, and they are not a few, promise a good bloom, the appearance above ground being very regular. An early bloom is all but certain however. In our next we shall give full particulars, as well as day of meeting, for the great National Exhibition to be held at Slough.

Vineries.—Early Grapes, which have been thinned, should be kept growing by a uniform temperature of about 60° by night, and ranging to 80° under bright sun by day. Sprinkle the paths, walls, &c., frequently, to maintain a certain degree of humidity in the atmosphere, and let the admission of air be attended to early each morning; indeed, if a little is allowed all night it will be to the advantage of the crop. Grapes in pots will require constant watching to supply them with water. Outside borders should be watched, to see the protective materials keep off the wet, and if they give a slight heat at the same time the roots will derive an additional benefit; but, if heat has been applied, it must not be allowed to decline. Bring on succession houses, and stop down shoots as they advance. The latest houses where fruit is cut may be pruned and washed, and the vines shaded from the sun to keep them from breaking till late. Now is a good time to pot a lot of vines for fruiting next season in pots.



Gladiolus.
Berthe Rabourdin
Fl. N. 6.

THE GLADIOLUS.

(PLATE 150).

IF we, of "Perfide Albion," and they of "La Belle France," do fondly cherish certain little political animosities toward each other, and if we are otherwise slightly at cross purposes upon minor moralities and social ethics, we at least atone for all these and other differences, as members in common of the great floral republic. There we all, with one consent, fling our animosities to the winds, and rush into each others arms like men and brothers. Though the cup we pledge each other in may be that of a Tulip, and instead of greetings across the table (though we often supplement our meetings in that pleasing manner), we exchange a bunch of Gilliflowers or a root or two of *Polyanthus*, we are none the less friends; and as such are always ready to rally round the standard of our common faith—horticulture. And if our good confreres across the Channel in heralding a new candidate (a plant, be it understood) for popular favour, do sometimes a *leetle* too highly colour the good qualities and pretensions of such candidates, we who are in these matters as immaculate as arctic snows, know very well how to excuse, or at least to palliate, the exuberance of a playful fancy, warmed by a southern sun. We who have never been guilty of any shortcomings (or rather overdoings), in that way, know what is due to an erring friend, and can generously forgive if not forget. There are, thank the gods, no floricultural Barnums among us. Humbug is not known in the English horticultural vocabulary. We can, every mother's son of us, to any such insinuation, lay our hands upon our hearts, cast up our eyes, and exclaim, without as much as causing a flutter in our respectable bosoms,

"Let the galled jade wince, our withers are unwrung."

But, exclaims the gentle reader (query, why are readers always gentle?), "What has this to do with the *Gladiolus*?" Nothing, good Sir, nothing; we are coming to that. But the bare subject would be as dry as one of its own corms (we believe that is the correct term), in a pot of sand in December, and we must perforce liquify it a little. And moreover, although we admit the desirableness of the qualification in a writer, we never can plunge *in media res*, which we believe means that we never can begin writing about what we intended to say, without saying a good deal of what we didn't intend to say.

This ordeal over, then, heré we are; and, like 'cute M'Quade, when he woke up with his feet in the stocks, where his respect-

able uncle the beadle had put him, in a slightly oblivious state of whiskey, the result of a family wake, we can only wonder how we got here. But, between Mr. McQuade and ourselves there is this slight difference—he could only remain and wonder where he was; we must as surely go on from where we are.

Yes, *Gladiolus* is the theme; the rich, the bright, the beautiful; and very desirable plants they are for late summer and autumn decoration, as that counterfeit presentment of the fine variety facing page 1 of this present month's *FLORIST*, done by Andrews in his best style, tells plainly enough.

Bertha Rabourdin's the name; and know, O gentle reader, that her birthplace was France. When men can forget Waterloo and Sebastopol, and interchange such gentle courtesies as always accompany flowers, what may we not hope for.

We singled out the subject of our present plate from a number of other equally beautiful *Gladioli* sent to the Crystal Palace Flower Show last autumn by Mr. Standish, of Bagshot, who, we believe, grows them largely. The collection as a whole was gorgeous, and attracted much attention.

For border decoration they are admirably adapted, especially if placed where they can be backed by and mixed with evergreens. As cut flowers, too, they have much to recommend them. If a spike, the lower flowers of which are just beginning to open, be cut, and placed in water, the whole will expand successively, equally well with those remaining on the plant. Their culture, too, is very easy. A light sandy soil and leaf-mould suits them best.

With a list of some good varieties at the end of this article, we print an extract from Mr. Standish's Catalogue, giving hints for their out-door treatment. If required to bloom earlier, they may be potted in February, sheltered in a cold frame, and planted out when the frost is gone. They also may be grown wholly in pots, and very handsome they are so treated. Mr. Standish says:—

“To grow these very handsome plants in perfection, the bulbs should be planted in a light sandy soil; if very poor a little leaf-mould may be added, but no dung. If the above cannot be had, and the soil is a stiff loam, one-half should be burnt and thoroughly broken to pieces, and mixed with the other, which will grow them well. The bulbs should be planted not earlier than the middle of April, nor later than the last week in May; and when ripe, which will be from the beginning to the end of October, they should be taken up and dried off rather quickly (or, like Onions, they are apt to turn mouldy at the roots), after which place them in thoroughly dry sand in a cool dry situation, away from frost, until planting time.”

The following is the list above alluded to :—

Adonis, pale reddish salmon, lower petals yellowish, marked with carmine
 Amabilis, brilliant vermilion
 Antiope, cerise, striped with deeper colour
 Aurantia, nankeen, yellow throat
 Bicolor, bright red, with yellow markings
 Berenice, fine rosy salmon, striped with orange red
 Bertha Rabourdin, pure white, lower petals richly marked with violet
 carmine
 Brencleyensis, vermilion scarlet, one of the brightest and best
 Clemence, very pale lilac rose, shaded and spotted with deeper rose
 Couranti fulgens, brilliant crimson
 Don Juan, bright orange red, lower petals yellow
 Dr. Andry, very bright orange red
 Edith, lilac rose, striped with a deeper colour
 Fanny Rouget, carnation rose, the lower petals carmine rose
 Florian, bright salmon rose, mottled
 Hebe, pale flesh, mottled with carmine
 Imperatrice, pale carnation, mottled with carmine
 Janire, clear bright orange-red
 Keteleeri, bright vermilion red, mottled with brilliant carmine
 La Chamois, nankeen buff, purple stripe
 Louis Van Houtte, bright scarlet
 Madame Binder, white, the lower petals striped with carmine
 Madame Place, very delicate salmon rose, lower petals nearly white
 Mathilde de Landevoisin, white, or very pale flesh, striped with carmine
 Miniatus, salmon red
 Mr. Coudere, carmine shaded
 Ninon de l'Enclos, flesh colour, striped with rose
 Pegasus, carnation, mottled with purplish red
 Penelope, pale flesh, mottled, lower petals tinted yellow
 Rachel, blush lightly striped with rose
 Sulphureus, sulphur, yellow and purple throat
 Triomphe d'Engheim, very dark crimson, yellow throat
 Vesta, delicate sulphur colour, lower petals buff, marked with carmine
 Wellington, rosy carmine, mottled

JASMINUM NUDIFLORUM.

THIS admirable plant was introduced by the Horticultural Society from Nankin, in the year 1844, through their eminent collector, Mr. Fortune ; and has been described by Dr. Lindley in vol. i., page 143, of the new series of the Transactions of that body. It is a shrub with angular deep green trailing branches. Its leaves are shining deep green, and each consists of three sessile leaflets of an ovate form, which fall off early in the autumn, and are succeeded by large yellow scentless flowers, which grow singly from the buds formed in the axils of the leaves which have previously dropped. It was considered at the time of its introduction that it would be an excellent addition to our greenhouse plants, by reason of its being a free winter bloomer, and continuing in flower for a length of time : and so it has proved, for plants growing in pots, and trained either with long stems and pendent branches, or in pyramidal form, have for years been objects of attraction in many gardens—nor is its beauty less conspicuous when allowed a more extensive range in the conservatory, with its roots growing in the free soil. It is, however, as an open-air plant that I would direct attention to its merits. On the face of a bleak hill, on the highest

cultivated land in the county of Southampton, and much exposed to the south-west winds, this plant has literally been in flower for months past; whether as growing in the common garden soil, trained on a trellis in front of the mansion, or in that part of a colonnade with a considerable roof protection, or rambling at will over beds of American plants, the effect produced has been of the most charming and beautiful kind; the flowers, too, have been most useful in bouquets and in the adornment of epergnes, vases, &c.; the large bright yellow flowers contrast admirably with Camellias, Hyacinths, Primulas, and such like, and to these they add a peculiar grace when the stems and flowers are allowed to protrude outwards. The time is not distant, when not only every garden, but the sunny side of every cottage in these kingdoms, will be enlivened and beautified, during the dull months of winter, with the golden flowers of this charming plant.

D. B.

FERN CLASSIFICATION.—No. V.

WE resume our sketch of the subdivision of the *Polypodiaceæ*, the first group of which, having transverse sori, formed the subject of the preceding paper (p. 44).

In the second group (2) in which the sori are parallel with the veins and oblique to the midrib or costa, there are scarcely any cases sufficiently anomalous to cause difficulty in the way of classification. The sori, generally forming a line of some length—oblong simple linear, or continuous in reticulated lines, here take the same course as the veins; whereas, in the former group, they were ranged across them, and in that which follows, are normally punctiform or dot-like, one of the dot-like clusters only occurring on one vein. It may, however, be useful to mention, that although the sorus is here normally and really oblique to the costa, in some cases the obliquity is so trifling that it appears to be subparallel therewith; but then it is to be observed that it is not placed across the veins, but follows their course, so that there is no real deviation from the characteristics of the group, and no real difficulty in classifying the plants. The same feature, that namely of the sori lying parallel with the veins, also serves to prevent misapprehension in the case of some of the much divided *Aspleniceæ* (which form part of the group) where the segments are so narrow as to contain only a single vein, with a sorus lying along it.

This second group breaks into two lesser divisions; of these the first again separates into two sections in continuation of the series already explained, and the remaining one breaks up into three other sections. The divisions are these:—

Sori parallel with the veins, &c.—

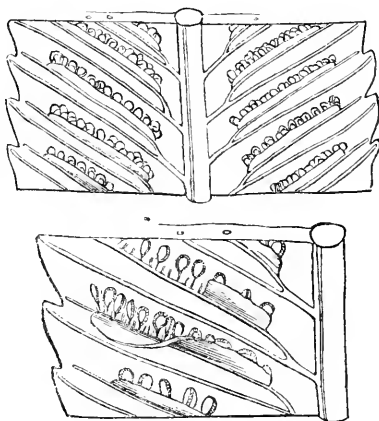
(a). Sori indusiate—

— lateral on the veins, the indusium attached by its base §13. *Aspleniceæ*.

— dorsal on the veins on an oblong cristæform receptacle, to which the indusium is attached by its centre §14. *Didymochlæneæ*.

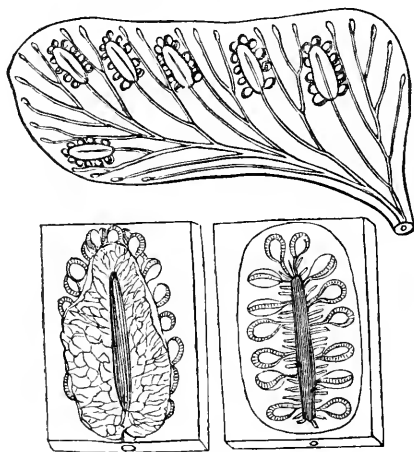
(b). Sori naked or spuriously indusiate (dorsal) (see forward).

The *Aspleniceæ* comprise fourteen genera, separable into three sets in the following order:—With the indusia single and distinct—*Actinopteris*, *Asplenium*, *Athyrium*, with free veins; *Thamnopteris*, with the veins combined; *Hemidictyon*, *Allantodia*, and *Ceterach*, with the veins reticulated. With the indusia connivent in pairs face to face—*Scolopendrium*, with free veins; *Antigramma*, *Schaffneria*, and *Camptosorus*, with the veins reticulated. With the indusia connate in pairs, back to back—*Diplazium*, with free veins; *Callipteris*, with connivent veins; and *Oxygonium*, with the veins semi-reticulated.



§13. ASPLENICEÆ: *Asplenium obtusatum*.

The *Didymochlaenaceæ* comprise two genera. One of these is the singular genus *Didymochlaena*, in which a peculiar fructification occurs; the sorus is short elliptic-oblong, and the vein is elevated into a crest-like ridge with which the indusium is united along its centre, both the sides and rounded ends being free; this genus has free veins. The other is *Mesochlaena*, in which the veins are connivent.



§14. DIDYMOCHLAENACEÆ: *Didymochlaena lunulata*.

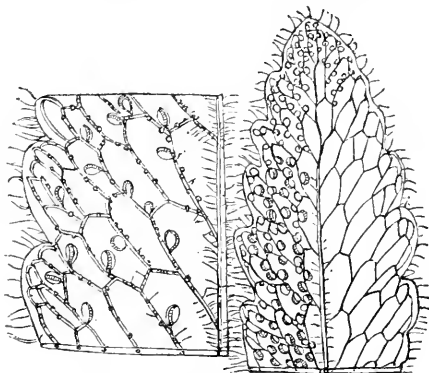
The remaining group (*b*) has naked or spuriously-indusiate sori. This term, spuriously-indusiate, though easily enough defined, is not quite so readily applied, in consequence of the many transition states between it and what may be called true indusia. What is meant, however, is that whereas the true indusium consists of a membrane

obviously distinguishable in texture from the frond itself, there is here no obvious membrane distinct from the substance of the frond covering the sorus, but the margin of the frond is turned down over the spore-cases, and is more or less, though very slightly, attenuated, and changed in colour and appearance, the extreme edge sometimes becoming membranous, but not usually so. Such are the covers in a portion of the group now before us, which admits of being broken up into three divisions, thus—

Sori naked or spuriously indusiate—

- Receptacles linear, reticulate-anastomosed . . . §15. *Hemionitideæ*.
 Receptacles linear, simple or forked, sometimes short-linear, *i.e.*, oblong . . . §16. *Gymnogrammeæ*.
 Receptacles oblong, parallel, contiguous, the spore-cases becoming laterally confluent, so as to simulate a broad marginal sorus, which is spuriously-indusiate . . . §17. *Platylomeæ*.

The *Hemionitideæ* consist of seven genera, whose sori are more or less and variously reticulated. The veins are consequently reticulated



§15. HEMIONITIDÆ: *Hemionitis palmata*.

throughout this section. In *Polytenium*, however, they, and consequently the sori, are very sparingly united, the few veins forming long parallel lines uniting here and there only; while in *Anetium*, *Antrophyum*, and *Hemionitis*, the veins are uniform-reticulated; in *Dictyocline* they are pinnate, with reticulated venules between; in *Syngramma* they are semi-reticulated; and in *Dictyogramma* they are combined in the transverse-costal form, the intermediate venules reticulated, and the marginal ones free.

The *Gymnogrammeæ* differ from the foregoing in having their naked lines of spore-cases, not reticulated, but either simple or forking, the simple lines being sometimes short, so as to be merely oblong, though more commonly they are linear. They comprise nine genera, namely: *Pterozonium*, *Gymnogramma*, *Grammitis*, and *Calymmodon*, with free veins; *Stegnogramma* and *Ampelopteris*, a somewhat doubtful genus, with the veins connivent; *Digrammaria*, with transverse-costal combined veins; and *Loxogramma* and *Selliguea*, with reticulated veins.

The *Platylomeæ* have usually been associated with *Pteridæ*, doubtless because their laterally confluent sori form a marginal line of spore-cases, but the structure is wholly distinct. In *Pteris* the sori are transverse to the veins, but the *Platylomeæ* belong to the series in which the sorus is parallel to the vein. The peculiar characteristic, is that the forking and not very distant veins bear the sori along a portion

of their extremities, one being produced by each, variable in length in different kinds, but when quite young becoming laterally confluent into a broadly linear mass, which occupies continuously a position near the edge of the frond, the spuriously indusiate margin being more or less inflected over its outer edge. The group consists of four genera, in all of which the veins are free, so that the manner of division in the fertile fronds furnishes the most obvious distinctions. They are:—*Platyloma*, in which the fertile fronds are not materially narrowed; *Plagiogyria*, in which they are much contracted, like those of *Iomaria*, the fertile divisions (pinnæ), linear; *Llavea*, in which the fertile fronds are tripinnate, the divisions (pinnules) siliquiform, that is linear and podlike; and *Cryptogramma*, in which the divisions (pinnules) of the tripinnate fertile fronds are siliculiform, that is ovate, podlike. This latter genus differs only in degree from *Allosorus* which is placed next it as the first genus in the following series.

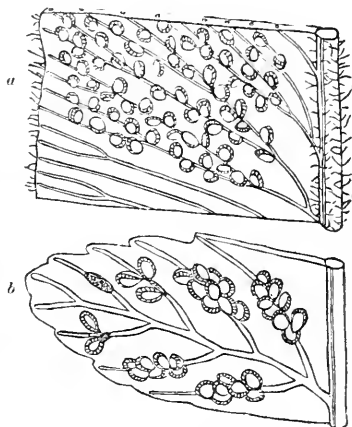


FIG. 16. GYMNOGRAMMEÆ: (a) *Gymnogramma rufa*.
(b) *Grammitis totta*.

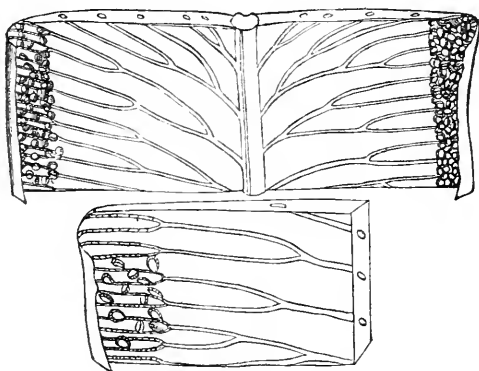


FIG. 17. PLATYLOMEÆ: *Platyloma Brownii*.

In the remaining group (3) the sori are normally punctiform, *i. e.*, consisting of roundish dot-like clusters of spore-cases. This is their typical character. Occasionally the dots become a little elongated, forming a short oblong mass, and these instances doubtless indicate an affinity with *Grammitis* in the section *Gymnogrammece*, but they are not of common occurrence. Still more rarely the dot-like clusters placed in a single row between pinnate veins have a tendency to coalesce more or less completely into a line; this particularly happens

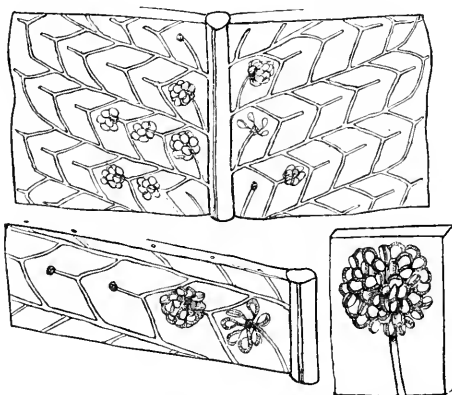
in *Drynaria coronans*, where, however, the sori are at other times, and most frequently, normally punctiform. This latter abnormal condition approaches very near to the normal condition of *Selaginella* among the *Gymnogrammeæ*. These are exceptional instances which cannot readily be reduced to rule, but fortunately they are few in number.

The entire group comprises three subdivisions, marked out in the first instance by the absence or presence of an indusium or cover to the sorus, and next, by the position of this cover when it is present. Even when there is no indusium, however, the sorus is not always exposed, for in some few instances the margin of the frond is turned over in the manner which, it has already been explained, is described by the term spuriously-indusiate, so as to hide the spore-cases; the latter, however, are usually exposed. The subdivisions resulting from these characters are as follow:—

Sori punctiform, &c.

- (a). Sori naked or spuriously-indusiate §18. *Polypodiææ*.
 (b). Sori indusiate, *i. e.*, with superior indusia } (see forward).
 (c). Sori involucrate, *i. e.*, with inferior indusia }

The *Polypodiææ* comprise sixteen genera, most of which are familiar to cultivators, dot-like naked sori being their characteristic mark. The first



§18. POLYPODIÆÆ: *Goniophlebium neriifolium*.

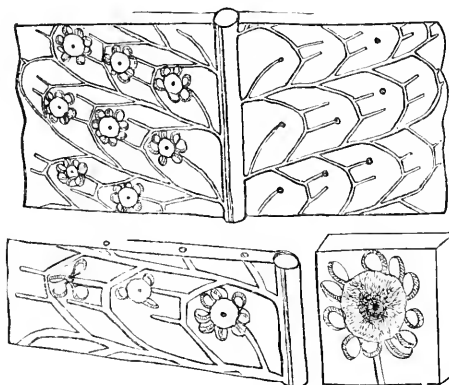
group of genera, comprising those with spuriously-indusiate sori, consists of:—*Allosorus* (already mentioned to have a close relation-ship to *Cryptogramma* among the *Platylomeæ*), *Struthiopteris*, and *Jamesonia*. The other group comprises the genera with plane fronds not indusioïd at the margins, and consists of:—*Nothochlæna* and *Polypodium* with free veins; *Goniopteris* with the veins connivent; and *Dictyopteris*, *Phlebodium*, *Goniophlebium*, *Campyloneurum*, *Nipholobolus*, *Pleopeltis*, *Drynaria*, *Aglaomorpha*, *Dipteris*, and *Lecanopteris*, having the veins variously reticulated.

The group (b) with indusiate sori, are further divided by peculiarities of the indusium in the manner following:—

Sori indusiate—

- Indusium reniform or peltate, attached by the sinus or centre, free at the margins §19. *Aspidiææ*.
 Indusium rotundate or ovate, cucullate, attached transversely by its base, free at the margin §20. *Cystopteridææ*.
 Indusium roundish or oblong, adherent at the base and margin, opening in front, *i. e.*, exteriorly §21. *Davalliææ*.

The *Aspidieæ*, known by the attachment of the covers of their dot-like sori, comprise twelve genera, one of which, *Onoclea*, is distinguished

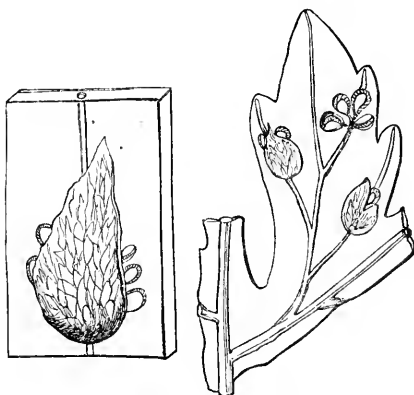


219. ASPIDIEÆ: *Cyrtomium falcatum*.

by its having the fertile fronds contracted, the indusium being not easily made out among the crowded spore-cases. The other genera are:— With peltate indusia— *Aspidium* and *Cyrtomium*, with reticulated veins; *Cyclodium*, with connivent veins; and *Polystichum*, with the veins free. With reniform indusia:— *Fadyenia*, *Sagenia*, and *Pleocnemia*, with reticulated veins; *Nephrodium*, with the veins

connivent; and *Lastrea*, *Oleandra*, and *Nephrolepis*, with the veins free.

The *Cystopterideæ* are a small group comprising three genera, the two latter of which have usually been associated with *Davalliæ*. They are separated by having their indusia attached at the base only transversely on the vein behind the sorus and inflected over it. The genera

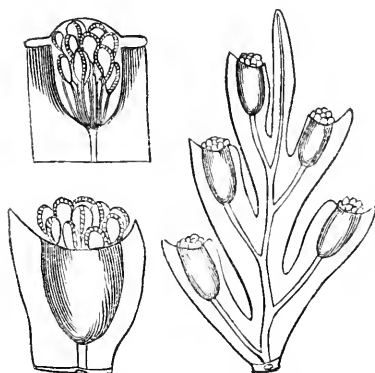


220. CYSTOPTERIDÆ: *Cystopteris tenuis*.

are:— *Cystopteris*, with medial sori; *Acrophorus*, with terminal (or sometimes axillary) sori—these two having thin tender fronds; and *Humata*, with terminal sori and thick coriaceous fronds.

The *Davalliæ* are distinguished by having an elongated tubulose indusium, or else, if shorter and roundish in outline, it is adherent by the margin as well as the base. The genera here placed are:—*Micro-*

lepis, with intramarginal sori; *Davallia* and *Loxoscaphe* with marginal sori; and *Prosaptia*, a curious genus, in which the sorus is set in a



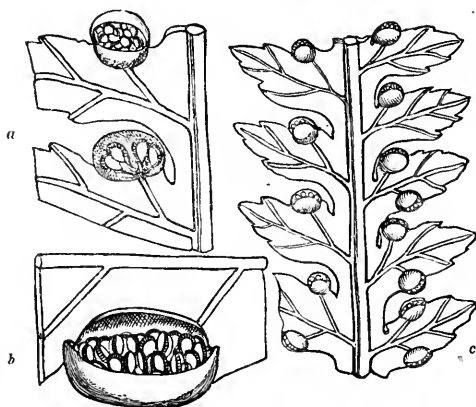
§21. DAVALLIEÆ: *Davallia bullata*.

short marginal cavity, formed by the junction of a thick coriaceous indusium with the substance of the frond, the two being nearly alike in texture.

The group (c), with involucre sori, need some explanation. The sorus is here set within a round or two-valved indusium, which is called an involucre from being placed beneath the sorus. There are two sections; in one the margin of the frond and the special indusium coalesce to form an entire or two-valved cup, and hence the cup is marginal; in the other the cup is a distinct body entirely within the margin, and formed of the indusioid substance. Thus we are enabled to separate the following groups:—

Sori involucre—

- in a marginal entire or two-valved cup . . . §22. *Dicksonieæ*.
- in a dorsal entire-lobed or fringed cup . . . §23. *Peranemeæ*.

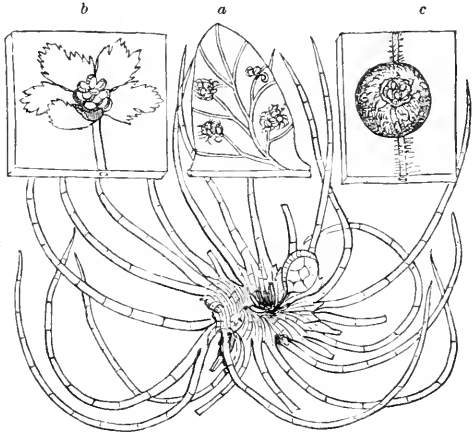


§ 23. PERANEMEÆ: (a) *Woodsia ilvensis*; (b) *Woodsia obtusa*; (c) *Woodsia mollis*.

The *Dicksonieæ*, the peculiar structure of which has just been briefly explained, comprise the following genera:—*Dicksonia*, *Diclisodon*, *Cibotium*, and ? *Pæsia*, with distinctly two-valved indusia; *Dennstædtia*, with cup-shaped deflexed indusia; and *Deparia* and *Cionidium*, with cup-shaped extrorse-marginal indusia. *Pæsia*, which long remained un-

known except from books, proves to have the peculiar structure of indusium found in our common *Pteris aquilina*, and it remains to be decided whether *Pteris* should absorb *Pæsia*, or whether the structure necessitates a separation, in which case the separated genus under the name of *Pæsia* would come near the *Lindsæeæ*, probably as a distinct section.

The *Peranemeæ* afford some variety in the character of their indusia; indeed, the most familiar genus, *Woodsia*, shows three modifications of the cup form, one almost entire and nearly closed at the mouth, another split into a few broad divisions, and a third reduced to a small scale fringed with long incurved hair-like segments. They comprise five genera: — *Peranema*, *Diacalpe*, *Arachniodes* (a doubtful genus probably belonging to the *Alsophileæ*), and *Woodsia*, all with free veins, the first having stalked sori; and *Hypoderris*, with the veins reticulated.



222. DICKSONIÆ: (a), *Dicksonia antarctica*; (b), *Cibotium Barometz*.

The subdivision of the remaining tribes must be reserved for another paper.

THOMAS MOORE.

Chelsea.

RABY CASTLE, DURHAM.

THE seat of his Grace the Duke of Cleveland is situated about nineteen miles S. W. by S. from Durham, and is built upon the east side of the park, which is very extensive and beautifully undulating. The building is a noble Gothic pile, and the general effect, from its extent and grandeur, is very imposing. The situation is also very fine, being upon rising ground, and is enclosed with an embrasured wall and parapet, which have seen good service during the border warfare; but for this we must refer our readers to history, as it is to the gardens we are bound, and these we found situated upon the north side of the Castle, but quite detached therefrom, the entrance being about 100 yards distant from the entrance gates to the castle. The gardens are well situated upon a gentle rise, facing the south. Having heard, especially of late, so much of Raby, we were certainly somewhat taken aback at not finding more extensive garden grounds here; pleasure grounds there are none; we should say seven acres include all the

space within the fences. On entering the gardens from the castle, among the first things that attracted attention were some vigorous trees of the Ribston Pippin Apple, from grafts brought from the original tree at Ribston some half a century since, by the late Duke. These are upon a south wall, and we were informed that the annual produce is extraordinarily fine and abundant. Further on, upon the same wall, is a house erected over the original Raby Fig tree; this is a magnificent tree still, although it had undergone very severe pruning when we saw it (the 23rd February last), it having, during these last few years, been allowed to become very wild; it is a most delicious Fig, and deserves a place in every garden; it is a free cropper and early. Behind this wall is the kitchen garden; it is entered at the S. E. corner; and a broad walk, with flower borders on each side, takes the visitor away to the south side of the garden, and on to the N. W. corner, where the gardener's cottage is situated. The first object here, in the way of houses, is a lean-to Peach house, with the trees planted out in the centre of the house, and trained over a table-like trellis; these trees have a very old and contorted appearance; they, however, had tolerably good wood upon them, but Mr. Short (the gardener here) intends cutting them out by degrees, and replanting the house; and instead of the present table-like supports, he is putting up flat wall-like trellises from the underside of the rafter to the ground, so that the trees are trained as upon a wall; he misses every other rafter, but, in the intervals between the trees, he proposes placing fruiting trees in pots. He considers that by this plan he gains a very considerable space: and those trees in pots, and those likewise upon the trellises, will get the full advantage of the sun and air. Further on, is a very ornamental span-roofed conservatory. This house was very gay indeed with some splendid Azaleas, Camellias, Roses, very fine; Hyacinths, Tulips, Dielytras, Laburnums, Deutzias, Cytisus, Lilacs, Oranges, Epacris, Ericas, Clianthus, &c. Further on, was an early Peach house, with an excellent crop of fruit, just ready for stoning; and an old vinery here too had some most excellent old Vines in it, very strong and well-ripened; but we understood there was some difficulty in ripening off the wood last autumn. We next came to the garden cottage, upon the walls of which, on each side of the door, were two splendid plants of *Jasminum nudiflorum*, which were literally covered with their golden flowers, and we were told that they had been so all the winter through. No garden (see page 99) ought to be without this invaluable winter-flowering plant, especially where much cut flower is required. Immediately in front of the gardener's cottage is a piece of ground, planted with the original Raby Currants. These are annually cut down to within a few inches of the ground, as this sort will not break its buds except terminally, consequently, to keep it within bounds, it has to be thus treated. Two very antique clipped Yew hedges run across the garden, from north to south; these tend very much to break the winds, which are very violent here sometimes; between these two hedges lies the only portion of flower garden. There are also two walls which run across this garden, upon which are principally Pear trees; these were undergoing a very severe

pruning and scraping; some of the old spurs that we saw taken off were at least six inches in diameter. The south walls were principally filled with Apricots, this being a fruit his Grace is particularly fond of: and to all appearance no expense had been spared in erecting protecting apparatus, and materials, with flued walls, into the bargain; but we understand, withal, they had no fruit last year; the trees, when we saw them, were in good order, and just coming into bloom. Upon the north walls, Morello Cherries are extensively grown, this fruit being in great demand at the "Castle." Immediately at the back of this garden is the framing ground, wherein were several pits of Pines, in most excellent health. There were also some Asparagus pits here for forcing, that vegetable only being forced every fourth year. It is consequently very strong and good; indeed, we never saw any better in February anywhere. Mr. Short was getting out the foundation for an extensive Cucumber pit for winter work, but of this it would be premature to speak. There was also an excellent house of Mushrooms, of which Mr. Short is a very successful cultivator. Further on, to the north of this ground, is another small garden, wherein are placed the "model vineries," we have heard so much about of late, with their "carrion borders," but we must say, that their appearance upon approach gives anything but an idea of a "model;" the houses being very heavy and antiquated, and glazed with very small glass, the ribs of the lights being only $6\frac{1}{2}$ inches apart; this range we understood was 164 feet long and 18 feet wide, divided into four divisions; the borders are or were made 20 feet wide; a portion of the old "carrion borders" had been removed, and fresh soil introduced; mould from the old borders was lying in the garden, at one end of the houses, at the time of our visit, and oh! what a sight, to which the burial pits of Waterloo can only be compared. We should say, that during the time these borders were making, dead horses and cattle must have been at a premium; the quantity of bones intermixed with the soil was immense, and of all lengths and sizes. Immense stones also were intermixed, with a pasty dark-looking tenacious soil, and although it had been some time exposed, it emitted a most offensive effluvia. In taking up the old Vines, they were found to be quite deficient of fibre, indeed, it is extraordinary how they existed at all; what living roots they had, were found upon the surface. The best and likeliest plants were again replanted in two of the houses, these were breaking very strongly; and well, and the young Vines that had been planted were also doing very well; some strong fruiting plants had been provided for this purpose. Many of the old Vines Mr. Short had budded with newer kinds; the buds were just swelling, and were promising to do well; the remaining borders are intended to be examined next year. The old Vines that had been untouched were certainly anything but what they should be, and to all appearance the wood had not been ripened upon them for years; they had evidently grown very strongly at some period, but this would undoubtedly be before the decomposition of the animal substances in the borders. There were some very good Strawberry plants forcing upon a shelf at the back of one of these

houses. Also a quantity of Potatoes in pots, and in another were some good stove plants, amongst which we noticed a magnificent specimen of *Jonesia Asoca*, in excellent health. There was also a quantity of fine tree Ferns, just imported from New Zealand; they were just showing their new fronds. A few young Orchids were also growing well. Amongst miscellaneous things, we noticed some very fine fruit trees in pots, *i.e.*, Peaches, Nectarines, Apricots, Pears, &c., &c.; these had lately been brought in; they were well set with blossom buds. We also noticed a quantity of pyramidal Pear trees, that had lately been planted along a wall border, in the hope of obtaining, in this cold climate, some of the finer and better kinds of Pears. The whole place was exceedingly neat and clean, and, from the forward state of the operations, bespeaks much for the perseverance of Mr. Short. We propose visiting this place again in summer, when we hope to give our readers a short account of the progress made here.

A

CAMELLIAS.

I AM an old Double White Camellia, and with a small collection of my family (forty in number), and many members of other families, live in a small lean-to house, 30 feet by 15, about four miles from Derby. Two drawing-room windows open into it, through one of which ladies and gentlemen frequently come to visit us. I could tell you many pleasant things we have heard them say about us, but that is not my object. I regret to say that we have also heard them say some things about us that make us all very unhappy; such as these: "They are very beautiful, but they never do well with me; I believe they require a hothouse in the spring." Another says, "I am passionately fond of them, but I scarcely get any blooms, as they drop their buds so in autumn." On these charges we have held a conference, and thereon decided that I should take our case into court, with a plea of not guilty. And in order that you may fairly plead our cause, I will acquaint you with our circumstances in connection with the case. To prove that we are not all plebeians, I append a few of our names. There is my sister, *Fimbriata*, old Double Pink, old *Variegata*, *Elegans*, and myself, are all old people, and have not been out of the house these seven years; indeed, to take such people as us through a doorway 3 feet by 6, would certainly maim us, or break some of our limbs; then there are her Majesty Queen Victoria, the Archduchess Augusta, the Countess of Ellesmere, the Countess of Orkney, Lady Hume's Blush, Mrs. Abbey Wilder, Cavendishi, Beali, Mathotiana, Donkelaari, *Imbricata alba*, *Tricolor*, &c.; to prevent any ill-feeling in our family, I shall not enter into details on our respective merits, but merely say that we all grow freely, and that our blooms are abundant and fine, as many witnesses can testify.

We generally commence flowering in November, and keep up a succession till April or May, but the height of our blooming season is in January and February; there is no hothouse or hotbed on our

premises at any season of the year, the only structures they have for plants are our own house, another greenhouse 27 feet by 14 (kept rather cool), a brick frame to keep bedding Geraniums in through the winter, and four wooden (cold) frames; our house has a double glass roof, and is warmed by hot water in four-inch pipes. A self-registering thermometer is kept in the house, and in November, when the temperature falls below 45° Fahr., with air admitted, a fire is lighted to maintain a temperature of 45° to 50° by day. It is lighted early in the morning and let out in the afternoon, when there is no frost. Night fires are used to maintain a temperature of from 40 to 45° . Air is always admitted by day, if possible, the opportunity being watched for; but when the weather is such as to make it improper to admit it, the house is kept at the minimum temperature. In January the heat is increased five degrees by day, but not any at night; this is continued till the weather is warm enough to keep the house at from 55 to 60° by day, and 45° by night. In spring and summer we receive proper greenhouse treatment; when our work is done (our buds formed) we are not inhumanely turned out of doors, to the mercies of the wind and rain, but take a quiet rest in the house, being liberally supplied with air by day, and also by night as long as it is safe to admit it. We are inspected every morning, and if we require it are supplied with water (rain or pond water), at a temperature of 76° ; and when our buds begin to swell off for blooming we are supplied with weak manure water, at a temperature of from 80 to 82° , and we receive it every watering till our bloom is over; when that is the case our roots are examined, and such as require it are repotted into pots two sizes larger.

The soil is composed of equal parts turfy loam and fibry peat, with a little silver sand, and some bones and charcoal broken up and mixed amongst it. Our leaves are sprinkled on fine spring mornings after the watering is done; and as the weather gets warmer we have a shower from a syringe. Such as were not shifted in spring are examined in August, and if they require it then are as carefully done as in spring. We are not shaded, but a slight shade would be very acceptable during very bright sunshine. That the water is given to us at the temperatures named is carefully ascertained by thermometer, but this is usually and easily done by the fingers. We regard it as the reason why we do not cast our buds, and also as causing our blooms to last much longer.

In conclusion, I assert that our cause is a just one, and trust that from this plain statement of facts our character will be fully vindicated, and I hope it may prove the means of increasing the popularity and numbers of our family.

O. D. W. C.

VARIEGATED GERANIUMS.

SOME time since, when writing on the subject of bedding Geraniums, I ventured to say, that, with reference to the variegated class, we were still a good way from what was wanted, and expressed an opinion that the enterprise, skill, and perseverance of our florists would ere long provide for our want. That we are rapidly approaching what I

then stated to be the desideratum, the variegation of the old "Mangles," with profusion of good scarlet flowers, must, I think, be clear to any one who watches the progress of the class. I know nothing more surprising than to mark the strides that flowers of all kinds have made within the last few years. Look at any gardening periodical, and see the plates of what was esteemed perfection a few years ago; and though the retrospect be dashed with the feeling of regret that you could have been so "soft," yet surprise at the advance, and admiration of the perseverance of those through whom it has been made, will, I doubt not, be the predominant feeling; and so with variegated Geraniums. We remember well, when one never saw them in a gentleman's garden or greenhouse, they were to be found in cottage windows, and amongst those who loved the curious; but the professional men who undertook to keep Lord So-and-So's and Sir Somebody Something's garden in order, never troubled their heads about them. But, when the present system of gardening came into fashion, and *bedders* of all kinds were eagerly sought for, these plants, which, 'ere this, had "wasted their sweetness on the desert air," were all at once called into requisition for decorative purposes. Unfortunately, the kinds then in vogue were not the thing; but the florists soon set to work, and Silver Kings and Queens, Mountain of Light, and all other wonderful names, were invented to mark the distinguished visitors; and no care, no attention, was considered too great to bestow on these now petted darlings, and well they deserve it. To my mind, a bed of them well managed is the very gem of the parterre. I will not ask you to come out in the glaring sun, when the scarlets, crimsons and other bright colours absorb the attention, but just when the fine summer's evening is drawing to a close, and the bright colours are darkening in the unceasing twilight; and now, if the garden be a well-kept one, look at that silvery bed, see how beautifully the white edge softens off into the twilight shade, and tell me if there be one in the garden to beat it? Well, but what should the bed be composed of? For a long time, Flower of the Day was the favourite, but it had a sulphur tinge in the white that spoiled its effectiveness, and moreover the flowers were scanty and dull in colour; while Brilliant, though deserving the name as concerning its flowers, is almost valueless as a variegation, especially in damp or rich soils; indeed, in damp situations this class hardly answers. Then came a decided improvement as Alma, with foliage of a much purer character, and with scarlet flowers rather abundantly produced. Still improvement was needed, and still the florist went on. Last year saw several new ones produced, and, from a careful comparison of them all, I am strongly of opinion that Bijou will be the favourite for some time. Its name is rather unfortunate; in fact, I believe it was given to it before the character of its growth was well ascertained. We always associate the name with something very tiny, but the variety is in reality a very strong grower, while its variegation is very clear, and the colour of its flowers decided. Perfection is very beautiful, but I question whether it will be so useful. Hendersoni, also, is a strong free grower, very similar in character to Bijou, though with a tinge of sulphur in its

white ; for there are two classes of these green and white variegations, —those which throw back their leaves like Flower of the Day, and those which cup them like Brilliant. What is wanted, and what I think we are getting, is, *flat*-leaved varieties, that would come between the two ; for, again, there are new ones in the field, of which a word or two. Jane is a decided move in the right direction ; the flowers are intense vivid scarlet, the individual pip large and well-formed, and the truss bold and striking, while the marking is fine, clear, and equal.

There is another class, which has not as yet become so effective as it will doubtless be, but what is familiar to all who grow these plants, those with pink or crimson horseshoes, such as Attraction, Hotel de Cluny, &c. As pot plants, nothing can be more beautiful than they are, but their habit has hitherto not been such as to make them effective bedding plants ; in this respect they are improving. *Picturata* is a very beautiful thing in this style ; the edge of the leaf is white ; then comes a broad circle or horseshoe of crimson and pink, and inside this again a green blotch. Of a similar character to this is a seedling of Mr. Henderson's, No. 25, not yet named, with a pink horseshoe and scarlet flowers, something in the style of Hotel de Cluny, but improved. By and bye, we hope to see this class very effectively used for bedding purposes. There is yet a third class of variegation, the golden-edged ones. For many many years this was an utterly neglected tribe ; but now they are much wanted and extensively used for giving beauty to the flower garden. The only one hitherto used in any quantity is Golden Chain ; in foliage it cannot well be beaten, but the flowers are very poor ; and to give effect to it, it is better to pinch them off. For a long time, it was considered extremely difficult to grow. Persons used to make cuttings of it in autumn, as of the scarlets, &c., and found great failure to be the consequence ; but now the case is different. I saw a very effective bed of it in Norfolk last year, composed of plants which had been taken up in the autumn, potted, kept dry, and then turned out again ; this had been done several years. The plants were consequently large, and the bed very striking. Cuttings to any amount may now be made by taking them off in the spring, and striking them in a cold frame or greenhouse (*not* in heat).

As variegated Geraniums are not such large growers as the scarlets of Tom Thumb, Attraction, &c., the beds, when planted, are generally filled in with other plants, such as *Cerastium tomentosum*, or *Alyssum variegatum*. Being themselves variegated and free in growth, they fill up the interstices, cover the ground, and greatly add to the beauty of the bed ; while others use largely *Verbena venosa* for the same purpose. I have not been able to use this myself in my own little plot, and so cannot speak from personal knowledge ; but I am told it answers uncommonly well, and that the contrast is as pretty as the concord in the other case. It will be seen from the above observations what are the sorts that I think peculiarly useful. I shall, however, add here a list of those which, in each class, in my humble judgment, are the best for small gardens, marking those that are *new* by an asterisk.

1ST CLASS. *Plain Variegation, white and green, with scarlet flowers.*

Alma (Turner), clear foliage, abundant bloomer, flowers scarlet.

Annie (Kinghorn), very white edge, flowers bright scarlet

Bijou (Westwood), a most beautiful variety, strong free grower, scarlet flowers

*Jane (Lennox), beautiful variegation, flowers bright scarlet, very freely produced

Hendersoni, a scarlet-flowered "Flower of the Day."

Perfection, very handsome, not so free as "Bijou," but very white edge, and green very dark.

2ND CLASS. *White and Green Variegated, with Pink or Crimson Horseshoe.*

Attraction (Kinghorn), edge good, horseshoe pink, habit not good.

Burning Bush (Halley), similar in foliage to above, but much dwarfer in habit, very pretty

Hotel de Cluny, clear white, pink horseshoe

*No. 25 (Henderson), clear foliage, pink horseshoe, scarlet flowers

*Picturata, clear white edge, with pink or crimson and pink horseshoe; small scarlet flowers, very striking

3RD CLASS. *Golden Edged.*

Golden Chain, foliage very clear and good, habit dwarf, flowers poor

*No. 50 (Henderson), a free grower, small scarlet flower.

I by no means wish to imply that my opinion is worth anything as a guide to others; I have certain ideas of what things ought to be, and, judging them by that standard, so far the opinion is correct. The question is, is my standard the right one; and now, before closing this paper, I would add a few words respecting a misconception which, I grieve to find, has been made relative to my article on Chrysanthemums, in that I omitted the names of some of the largest growers in the kingdom. When speaking of them, I did not of course mean to infer that the nurserymen I named were the only or the largest growers; they were the ones whose plants I had seen. I believe, for example, one of the largest is Mr. Bird, of Stoke Newington, the peculiar home of the flower. He is, moreover, one of our most successful exhibitors. D.

Deal, March 19.

CHISWICK AS AN EXPERIMENTAL GARDEN.

WE are glad to hear that the gardens of the Horticultural Society at Chiswick (or at least a large portion of them), are to be converted into experimental grounds, for the trial of vegetables on a large scale, to assist which purpose we learn, through the *Gardeners' Chronicle*, that contributions of seeds are being sent for trial by the principal seedsmen. If the gardens are to be kept at all (which under all the circumstances we now greatly question), we do not see that they could be devoted to a more useful object. Much, however, indeed everything, will depend on the kind of person whom the Society may be able to secure for their new Superintendent, who should unquestionably be a man of sound practical knowledge and acute powers of observation, to draw up the reports with that degree of accuracy without which they will be comparatively valueless, and the time and expenditure of the Society will have

been thrown away. The number of new varieties of vegetables brought out year after year by the trade, and offered for sale generally on the sole recommendation of the vendors, only bewilders the majority of cultivators, who have hitherto looked in vain for a tribunal to which they could refer for an opinion sufficiently unbiassed to be considered an authority as to their comparative value.

We do not by these remarks intend to question for a moment the correctness of descriptions appended to new varieties of vegetables in the seed lists annually published; on the contrary, we know from our own observations on new productions, carried over a number of years, that the descriptive notices which have accompanied the novelties we have tried have proved generally correct, and may therefore be relied on. But it appears to us that an investigation into the *comparative* qualities of vegetables in the same class, as to earliness, lateness, productiveness, &c., is most wanted. For instance, as regards Peas, let us take a dozen catalogues, and out of the class early Peas select a dozen varieties, all recommended as the best, &c.; of these every gardener well knows that three or four kinds, perhaps, are better worth growing than the others, owing to some particular property which stamps them with a higher value. But how are isolated gardeners and amateurs, growing, probably, only one kind of early Pea, to find out the best, with their limited opportunities for comparing the different varieties when grown side by side? And if out of a dozen kinds three or four represent all that is valuable in this particular class, why grow the other eight or nine kinds, as is now done? simply because the public has no standard of comparison to guide their judgment in the matter of selection? We might lengthen these observations by citing numerous classes of vegetables, where a similar cutting down might and certainly would be effected, when once a series of fair trials, under the same conditions, had established the respective merits of the kinds under trial, and this information had been made public. We look forward, therefore, with some interest to these class experiments as a means of settling the relative value of cultivated vegetables, and bringing the information resulting therefrom within the reach of everyone having a garden.

We have on more than one occasion pointed out the mistake the Society made by going to a great expense in growing fruits for the purpose of testing their merits, as the information obtained could only be considered as marking the peculiarities and properties of fruits within a very circumscribed area—the Thames valley—and that one of the most favourable soils in Britain for fruits. To establish anything like a general data as to the flavour, hardiness, and productiveness of fruits, a much wider range of country, and all the contingencies of varied exposures, altitude, and difference of soil, have to be taken into consideration. These objects the Pomological Society started with at their commencement, and the mass of useful information, in the shape of Reports and Transactions, on these subjects that Society is yearly amassing shows how valuable this information will be to the Pomologist. More recently the Fruit Committee of the Horticultural Society has taken up the same grounds of inquiry; but let us ask the question, how much more would have been known of

fruits and fruit culture had these properly directed inquiries been made 30 or 40 years ago, and the culture at Chiswick, as regards fruit trees, been confined to exhibiting the different forms of training, and determining nomenclature.

Besides the proposed experiments with vegetables, the Society might very well undertake to prove the respective merits of Strawberries, Raspberries, Gooseberries, and Currants, about which much confusion exists. As these fruit quickly, their trial need not entail any great expense.

As the Society has plenty of spare ground, and want support and co-operation, could it not also carry out a series of experiments on the value of agricultural products—Cereals, Grasses, Legumes, and Roots—for the information of the Agricultural Society? If the Royal Agricultural Society could be induced to favour a proposal of this kind, and would assist in carrying it out, the experiments would confer mutual benefit on both societies.

CAMELIAS.

WILL any of your correspondents be kind enough to say if any in the following list of Camellias, which I grow, are not worth keeping, and at the same time give the names of a few that are superior or equal to the best of those named, at a moderate price. I have weeded my stock pretty freely; but as I live in the country, and have no opportunity of seeing any but my own collection, I cannot tell how far mine are equal to those in general cultivation. They are as follows:—

Double White	Jubilee
Candidissima	Imbricata
Countess of Ellesmere	Jenny Lind
Carswelliana	Landrethi
Duchesse d'Orleans	Mathotiana
Drysdali	Lady Hume's Blush
Fordi	La Reine
Fimbriata alba	Victoria
Henri Favre	

One word of advice I would offer to amateurs, and that is, if they get a good variety to propagate from it at once. It answers two purposes; viz., extra stock, and you are almost sure to see the bloom of it earlier; for instance, I have had a plant of Drysdali for three years, upon which I have never seen a bloom, and never shall. The first year I inarched a plant from it, and the young one bloomed the second year. The mother plant had five branches on it, which were rather long. Sooner than head it down I inarched three of the branches into three separate plants; they all grew well, and produced two or three buds apiece. The old plant, though it looked very healthy and grew well, yet as soon as the inarched branches were separated from it, it immediately withered, and on examination I found the stem at the bottom dead. It had gained its support from the plants on which the three branches were inarched; consequently, if I had not propagated from it, I should have lost all. For grafting or inarching,

both indoors and out, I use common white tape, not too wide, or it will not bind regularly. I simply damp and stretch it before using it; you can tie the plant together more easily, with no fear of breaking the bandage, and it excludes the air better. You can use it over and over again. I do nothing more to indoor plants than with my finger, cover the tape over with a little clay, about the consistency of thick paste. When I have a variety that I do not like, and it is a free grower, I bottle graft it. I call it bottle grafting, as I do not know any other term which would describe what I mean. The process is similar to inarching, excepting that you cut the shoot off the plant, leaving it two or three inches longer than where it is tied, which I put into a bottle, kept full of water. Take away a portion of the head of the plant, and gradually take it away altogether. If the piece that is to be united is sufficiently strong, I prefer to tongue it together.

The only advice I will offer to nurserymen is, when they publish their *Camellia* lists, to be as explicit with regard to the colour, form, and price as they are with the threepenny packets of annuals.

Birkby, near Huddersfield.

J. KITE.

EXHIBITION OF HYACINTHS.

MESSRS. CUTBUSH & Son, of Highgate, have favoured the public for the last fortnight with a charming display of the above much esteemed flowers. They were finely grown, in the greatest variety, and most effectively arranged, and have been gratuitously shown to a large number of admirers. The following appeared to us very superior:—

Jenny Lind, double red, large bells, good spike, and very pretty
 Napoleon III., double crimson, good spike, good
 Laurens Koster, double bright indigo, large bells and spike, fine
 Prins von Saxe Weimar, fine dark double blue, good bells, extra fine
 Sir Colin Campbell, double blue shaded, fine bells, extra fine
 Othello, very dark double black, large bells, very novel
 Amy, fine bright single red, large bells and spike, fine
 Cosmos, single pale pink, fine bells, large spike, pretty
 Florence Nightingale, single shaded pink, large bells, very fine
 Madame du Lac, single rosy pink, good bells, fine
 Mdle. Rachel, fine deep single red, good bells and spike, very fine
 Robert Steiger, deep single crimson, large bells, good
 Solfaterre, brilliant orange scarlet, large bells, novel and good
 Prince of Wales, single lilac, new shade, fine
 Argus, fine dark single blue, large bells, very novel and fine
 Baron von Tuyl, single dark porcelain, large bells, good
 Couronne de Celle, fine pale single blue, large bells and spike
 Orondates, single porcelain blue, large bells, very fine
 General Havelock, deep single black, large bells, always fine, the best
 Anna Carolina, single pale straw, good bells and spike, fine and good

The exhibition took place in a lean-to greenhouse, the pots and soil being covered with moss; the stage of the house was filled with various interesting spring-flowering plants, and, altogether, the display did great credit to the spirit and enterprise of the Messrs. Cutbush.

NATIONAL FLORICUTURAL SOCIETY.

WE regret to have to record the decease, by atrophy, of a most respectable member of the floricultural world, the National Floricultural Society; and the regret is somewhat increased by a knowledge of the fact, that the disease under which it sunk was partly occasioned by neglect. Nothing could have been more promising than the circumstances under which it was ushered into life. The most experienced physicians (floricultural) were in attendance; and a nurse of long experience, who was well acquainted with all its little wants, kindly undertook to superintend its progress. For a while, all went on well. Being essentially a vegetarian, it was well supplied with an abundance of sound and varied food—the newest and choicest delicacies were brought before it; and so particular had it become, that when once it had pronounced anything to be very nice, people were always glad to get a bit of it for themselves. But by degrees the supplies began to fall off, there were some country cousins, on whose support it very much relied, and these failed in forwarding the necessary means; and so after struggling for awhile against opposing interests, and lukewarm friends, it has very steadily refused all further nourishment, and has departed. In plain language, the country nurserymen did not sufficiently see how manifestly it was in their interest to support it, for it gave to them a guarantee that the new flowers were not all dependent on the *description* for their worth—a certificate from the National Society being of course much in its favour. The society has existed for years, has held a large number of meetings, and done much good to floriculture; but as the Botanic Society has instituted spring shows, and offered prizes for seedlings, the need of it is not now so apparent as it was; and unlike many societies, who when they are going down in the world, still catch like “drowning men at straws,” and get head over ears into debt, and then call on a sympathising public to help them out, the “National” has very wisely left off with a balance in hand, and will transfer it to some benevolent purpose connected with gardening. We must now bid it farewell; plant a weeping Cypress over its grave, and as we leave it, say *Sic transit gloria*.

D.

TO AURICULA GROWERS.

THE following letter has in some mysterious manner reached me, and I hesitate not to lay it before you for your favourable consideration:—

Sir,—Some members of my family (which you are aware is not a very large one, like those parvenus, the Verbenas, &c.) say that they have had the pleasure of your acquaintance for a very long period; indeed, respect for your feelings inclines me to hide from your eye the figures which they have given me as marking the number of years; and they therefore think that I may, without fear of being considered impertinent, say that they regard with much satisfaction the evident interest you and others take in our welfare, and they feel this the

more from the great sympathy you expressed for us when some distant connections of ours were so shamefully and cruelly put to death by that dreadful old man. I can assure you our very frames shook, and thoughts of the Black Hole of Calcutta and that dreadful well at Cawnpore came rushing in upon us. The consequence of the attention drawn to us by your friends (I believe they are) Iota, Φ , and yourself, has been of a very cheering character; and I am happy to be able to tell you that we are rapidly advancing in public favour. Thus, our excellent Scotch friend, whom you speak of so highly, Mr. Lightbody, of Falkirk, has, so I learn, not only sold all the plants he had of his own to spare, but has bought in from neighbouring growers all their spare stock, and has since potting time sold upwards of 1000 plants. Then, again, our kind friends, Messrs. Dodwell, Holland, and Co., had prepared extensive quarters for us. They had doubled their stock, and raised their blooming plants to 2000; but have had such a demand that it does not now exceed one-half that; and the only nurseryman who pays us any attention in the south, Mr. Turner, had had his stock so reduced that his foreman quite grieves to see all his fine plants carried off, one after another. As this is the case, it has occurred to us that we might possibly be able to come out in our best holiday colours at an exhibition. You remember (for, though you are a clergyman, I must bring it to your mind) when we used to see you, in poor John Dickson's days, at "The Horns," at Kennington. I don't mean to accuse you of putting in a night with us; but you certainly did make a good day now and then there; now, why can't this be done again. Miss Maria and Sophia Chapman say that their Papa is quite healthy, and they fully expect some little sisters by and by, while Miss Aurora Headly assures me *her* papa's love towards her and her brothers is by no means lessened. I think, then, that, if those who are so anxious to secure our services, were to put their heads together, we might rise still higher in public esteem; will you, then, Sir, be kind enough to think over it. Perhaps the Botanic Society would allow us to hold an exhibition at their April shows, or themselves give a little more encouragement to class showing.

With much esteem,

Believe me,
For self and fellows,
Your humble servant,

G. E. AURICULA.

Such is the letter; what say you, brother growers, to it? Can it be, or can it not be? We can't have a national Auricula show. We are too aristocratic for the multitude, the "*profanum vulgus*." But even though no prizes were to be given of money value, could we we not get up something of the kind in London for our mutual encouragement.

Deal, March 19.

D.

SOUTH METROPOLITAN CHRYSANTHEMUM SOCIETY.

A SECOND general meeting of this society was held on Monday evening, March 14, Mr. Mills in the chair. Mr. Morgan, gardener, Lincoln's Inn Fields, introduced the subject of discussion. He said that to show that he was not unmindful of the welfare of working men, he begged to give them a little information concerning the growth of the Chrysanthemum as a standard. He stated that the idea originated with him of having a quantity planted out for the purpose of taking up to pot, and that his attention was directed to a plant of *Cedo Nulli*, which had a fine large head upon a single stem, somewhat about seventeen or eighteen inches high. He took it up, potted it, and the shoots being tied down, it formed a very compact top, producing about sixty or seventy good blooms. This took place in August. Believing that he could materially improve upon this in the following November, he took off a lot of cuttings, taking the eyes carefully out, and potted them singly in a cold frame until April. He then prepared a piece of ground by dressing fully two spades deep, supplying a quantity of stone and brick rubbish to the bottom, and covering the whole over to the depth of two feet—the compost used being a mixture of loam, road sweepings, and a small quantity of sand; then planting out two feet asunder. As they grew, he took the eyes out as soon as they appeared, letting the leaves remain upon the stem from the very bottom, watering the foliage twice every day, and the roots as often as in his opinion they required it. By the middle of June, they were nearly three feet high, and the nature of the plant being to branch off at a certain height, care must be taken to secure eyes sufficient to send out shoots to form the head before it does so. He informed the meeting that he left from five to six of the above, then carefully taking off the top of his plant, the shoots soon made their appearance, and when about five or six inches long were stopped: and that he then commenced forming the head by placing a little bast matting round the stem, bringing down the shoots. This process was practised—namely, stopping and tying—till the end of July, when he began to study the best means of getting them into pots. He took his spade, cut straight down about half-way round the plant a little less than the size of the pot intended for its reception, keeping it well watered. In about nine or ten days after, he cut round the part remaining, taking it up, carefully potting, and abstaining from injuring the roots. It was kept in the shade for a few days, when, judging that it was going on well, he took off all the foliage from the stem, and removed it to a brighter aspect, still regularly watering and attending, and watching, and supplying liquid manure twice a day. By management such as this, he had plants three feet high, with heads perfectly flat, five feet in circumference, with fifty shoots full of buds, and handsome green foliage. He then gave a list of some of the best sorts for growing as standards, among which may be mentioned *Cedo Nulli*, *Modele*, *Bob*, *Mustapha*, *Helene*, *Drin Drin*, *General Canrobert*, *Duruflet*, and *Argentine*.

After some remarks from Mr. Broome, Mr. Taylor in moving a vote of thanks observed that he had a true love for the Chrysanthemum,

not because it had of late become so popular, but because it was adapted for town culture, and no doubt kept many a man more at home amongst his family, and tended in some degree to that moral improvement which it is desirable to attain.

Mr. Andrews presented the society with some very prettily executed coloured drawings of the principal varieties, framed and glazed, and intimated his intention of giving more to decorate the rooms of the society.

In conclusion, it may be remarked that the success in the formation of this society has been the means of establishing others in Peckham, Mile End, and north London. An interesting paper was read by the chairman (through the kindness of Mr. Broome) furnished by Mr. Wiggins, gardener to Mr. Beck, of Isleworth. From this the following are extracts :—

December.—Take the strongest cuttings from healthy plants, extract all bottom eyes and foliage: place each cutting in a 3-inch pot, the compost to consist of rich loam and silver sand. Plunge the pot in a cold frame filled with ashes and decayed leaves; keep them in this state till they are well rooted.

January.—Plants in the same state.

February.—Remove out of 3-inch pots to 48 size. Add to the compost pounded oyster shells. Water moderately, and place them in the frame as before.

March.—Plants in the same state as previous month. Stop or rather extract the crown at the height of from 5 to 6 inches, leaving 3 inches clear stem.

April.—Repot into 32-sized pots. Compost composed of rich loam and rotten dry cowdung, silver sand, and pounded oyster shells. Water occasionally with weak liquid manure. Except in very cold weather, keep the plants well exposed to the air and sun. Stop the laterals sufficiently grown, say to 3 or 4 inches, as in March.

May.—All well started plants with 7 or 8 of the best eyes should be selected from each break, and the remainder taken off. Continue watering with weak liquid manure, and pegging the shoots down regularly all round the pot.

June.—Shift into small 24-sized pots; compost as before. Shoots grown from 3 to 4 inches stop again; keep pegging down. Before stopping plunge the pots in a sheltered place in the garden three parts down. Syringe night and morning all over the foliage.

July.—Shift plants into 16-sized pots, being the last change. Compost a little stronger by adding more decayed cowdung. Stop for the last time at the end of the month. Bestow great attention to pegging each shoot regularly to fill up all vacant places; let the shoots that are pegged down be clear of mould in case they strike root.

August.—Liquid manure to be made of equal portions of rabbit, sheep, and cowdung, with a little soot; half a bushel of this mixture to 40 gallons of soft water. Give plain water once a day, and this liquid night and morning. Use the syringe freely, and if green fly shows itself, use tobacco water when sprinkling the foliage.

September.—Attend strictly to pegging out the branches where they are required to fill up. Keep the circular form as true as possible. Strictly attend to watering and syringing.

October.—The plants are now at their full growth, and should be 5 feet across, buds the size of a Pea. If weather cold and indicating frost, take them out of open borders, and put them under glass or some temporary covering. Damp the ground or house where they are, to create moisture. Syringe under the foliage as well as the top. A little tobacco water may be used occasionally, buds showing colour at the end of the month.

November.—Tie all plants at the beginning of this month into the form intended for exhibition at least a fortnight before wanted, to allow the blooms to assume their proper position. By thus growing, plants should be produced with from 1000 to 1500 blooms, 4 to 5 feet across, 15 inches high, with good foliage.

After a vote of thanks to the chairman and others the meeting separated.

BEGONIA SPLENDIDA.

IN one of your numbers last summer, it was stated that this had not up to that time been bloomed in the United Kingdom. Now, does this Begonia still remain unbloomed in England, or, I should rather say, Great Britain? Perhaps some of your readers may be able to say; my reason for making the inquiry is the fact of my having a good plant of splendida, with one fine panicle of bloom half expanded on it, and a second panicle just developing itself. The petals are about the size of those of picta Griffithi, but of a pinkish white colour, slightly margined with a rosy tint. Some of the leaves are in extreme length nine inches, and in width seven inches. And, although I have heard many complaints in this neighbourhood of the difficulty experienced in keeping the leaves on this plant, I must say that I have not found any—and that my plant, with its noble and striking foliage, rich crimson when young, and reddish green when matured, forms, in all respects, a most healthy looking specimen.

7, *Sidney Avenue, Blackrock, Dublin.*

L. G. W.

FORSYTHIA VIRIDISSIMA.

THIS fine free blooming deciduous shrub, with bright yellow flowers, was introduced from the north of China, by Mr. Fortune, about the year 1844. It is described by Dr. Lindley in vol. i., page 226, of the new series of the Transactions of the Horticultural Society, and to which is appended a copy of Mr. Fortune's notes in regard to it—in which that gentleman states, that in England it is probable that it will be nearly hardy; but my object in the present communication is to note its perfect hardiness in a situation of considerable altitude and exposure, as a lawn shrub, growing in the common garden soil; and it is decidedly one of the most interesting plants at the present time in a collection of considerable variety and extent. Its bright golden flowers, produced from the axils of every fallen leaf, present in the aggregate, a dense mass of blossom of the most charming kind. It is described as being a great favourite with the Chinese, and is generally grown in all the gardens of the rich in the north of China. It was also discovered wild amongst the mountains of the interior, in the province of Chekiang, producing an effect even more ornamental in its natural state amongst the hedges, than when cultivated in the “fairy gardens of the Mandarins.”

The Forsythia expansa, another shrub of like character, is described in the “Flora Japonica,” vol. i., page 16, and is there stated to have been obtained from China by the Japanese, who plant it along with evergreens, for the sake of obtaining from the varied appearance produced in the spring by this plant, a good background to the Peaches, Apricots, and Camellias, that blossom at the same time. In this country, something of the same kind may be effected by an admixture with the Cydonia japonica, in its different beautiful varieties; and these

may be disposed in masses, trained on walls or other description of fence, or formed into hedges, and trained as taste or fancy may direct in favourable situations. Almonds and double-flowering Peaches would of course add beauty and variety to such an arrangement. As a conservatory plant, the Forsythia contrasts admirably with Camellias and multitudes of other flowers with which such houses are decorated during the early months of spring. And when the successes of our commercial gardeners have enabled them to render more common those gorgeously coloured double-flowered Peaches, introduced by the same fortunate collector from the same "flowery land," some of which have recently been figured in the *Florist*, we shall doubtless use them as profusely as do the Japanese, in the decoration of our conservatories and gardens.

D.

WINTER FLOWERING CARNATIONS.

THIS beautiful class of plants is not half so well known or cultivated as their fragrance and easy culture entitle them to. I am, therefore, induced to lay before your readers my system of culture. I have been a successful grower of these flowers for many years; they are, moreover, great favourites of mine; and as plants to cut from, for bouquets or drawing-room decoration, they are indispensable; for they last a long time in bloom, and remain in beauty a great while after being cut; but this is not their only merit, they have other claims on our notice, for they bloom at a season when Flora has generally but little to present us with. With proper care, they will flower in pots from October till May, and longer by giving a slight shift in March or April; and, with a good collection, you can cut as many as you like; for cutting the flowers is rather beneficial to them than otherwise, inducing them to throw out flower buds at the joints below. As regards varieties, I shall not trouble you, as their name is legion. I cultivate about thirty-eight, which are all very beautiful, and they produce an endless variety of markings and colours, such as yellow blotch, rose and purple blotch, and scarlet and crimson flakes; white edged with pink, rose, and crimson. Then we have selfs in great variety. All who wish to cultivate this class of plants cannot commence at a better time than now, for they are all very cheap, and are easily procured from any good nurseryman. I propagate mine from cuttings every season. I take them off about the beginning of October, choosing the best and stoutest shoots; they are made in the usual way by cutting to a joint, and removing a small portion of the tops of the Grass; they are then inserted thickly around the sides of 4 or 5-inch pots, and made firm—using for soil, equal parts leaf-mould, loam, and sand; they are then placed in the bottom part of some cold frames, along with bedding out plants, and are always shaded when the sun shines strongly; watering as may be necessary. Here they strike slowly, and are all rooted by the beginning of March; they are then potted off into 3-inch pots, using for them good sound mellow loam, with a good mixture of sand and rotten dung; they are then placed into a cold frame by themselves; they are kept shaded for a few days from the sun, and advantage taken

of the sun's influence, by closing rather early in the afternoon ; and a slight dewing with the syringe is given them for about a week or ten days, to induce them to take to the fresh soil and make fresh roots quickly ; after this, they get all the air possible by day.

By the beginning of April, the pots will be full of roots. At this stage, I pinch out the centre of each, which induces them to break well all round ; and when they have made shoots about an inch or so long, they are then put into 32s, or 6-inch pots, using for them three parts sound loam, well chopped up, but not sifted ; the other part to contain about equal sand and dung, well decomposed. Let me here say that I think the cause why some fail to bloom this beautiful class of flowers satisfactorily, is want of stopping at the proper time, and then not waiting till broken properly, and planting them in much too large pots—8, 10, and 12 inch ones I have seen them in frequently. It is a great mistake to use such large pots. After they are all potted, sticks are placed in the pots, in readiness to tie the shoots to as they advance ; and, at the same time, all the shoots are thinned out to four, which I have found better than a larger number. The pots are now plunged into the ground, up to their rims. The plants get a watering and a tying up when necessary. By the beginning of September they will begin to show bloom buds ; they then get lifted from the ground, and a little weak liquid manure is given them about twice a week ; and, if mildew makes its appearance, as it will some seasons, I dust with sulphur ; but, if green-fly, which I have never got on mine, attacks the young shoots, prepare some tobacco juice, and dip the young shoots into it. The pots are all washed, and then removed to an airy vinery for a week or two, or any place at command. By the middle of October, the earliest varieties will commence to bloom, and others will quickly follow. If kept in a greenhouse, the heat of which is kept up from 48° by night to 50 or 55° by day, from November till the end of February, they will keep gay and interesting during that period.

I take off cuttings, as before, in October, after they have finished blooming, which will be about the end of April and May. My old plants I transplant in the borders of the flower garden, where they soon commence blooming again, and give me a second supply of beautiful fragrant blossoms, which are at all times greatly prized.

C. W. C.

GARRYA ELLIPTICA.

THIS magnificent and highly interesting shrub was discovered by Douglas, in northern Californian, about the year 1828 ; and was named by him in compliment to the late Nicholas Garry, Esq., at that time chairman of the Hudson's Bay Company, to whose assistance he was much indebted during his travels ; it is said to be the greatest botanical curiosity introduced into this country by that indefatigable collector.

The plant attains considerable dimensions, and is irregular in its

form and outline. The foliage is evergreen, of an Ilex or Viburnum character, and of the most charming kind; a particularly handsome specimen, which I have now in my eye, and which is growing in common garden soil, on an exposed situation in one of the western counties, at an elevation of 600 feet above the level of the sea, has been an object of much attraction for several weeks past, being somewhat densely clothed with long massive tails of yellowish catkins, which, hanging from its irregular branches, produce an effect of the most singular and pleasing kind; and its beauty is much enhanced by being seen in contrast with other handsome forms of trees and shrubs on a well-kept lawn.

It is also a charming subject with which to enrich bouquets or flowers in glasses or other works of art; the pendulous form and delicate colour of the catkins produce an unusual and excellent effect, contrasted with flowers of gayer hues, and which, under ordinary conditions, are plentiful enough at this period of the year.

A sheltered and northern exposure is the most appropriate for its growth, as the foliage and flowers are alike more perfect in such an aspect.

The female of this plant was also introduced from northern California, under the auspices of the Horticultural Society some years since, by their no less eminent collector, Hartweg, and flowered for the first time in Europe in March, 1850. In foliage it is like the male plant, but the flowers are as destitute of beauty as the male is conspicuous for its attractions. The catkins are short, green, and at a little distance are scarcely to be observed. It is, however, stated that in North West America the plant is loaded with long clusters of ornamental purple berries.

March 15.

L. N.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—Any of these latter out of bloom, and wanting more pot room, should be shifted at once, using a compost of sandy loam and peat, in about equal proportions, with a little silver sand where the loam is heavy, and very rotten cowdung for large specimens. Keep them close after potting, and syringe frequently, to induce the plants to break freely.

Auriculas.—These, like many other things this spring, are unusually forward, many now being in bloom. Shade during bright sun, if the plants are facing the south, or perhaps it would be best to place them in a cool north situation, to prolong their bloom. Always popular with a class, the Auricula is now becoming generally so, and is now patronised by the Royal Botanic Society at their spring meetings.

Carnations and Picotees.—No time should be lost in completing the potting of these for bloom, or planting them in beds or borders. We never remember a finer spring for these plants; their health and strength is remarkable; a fine but an early bloom is more than probable.

Cinerarias.—Little can be said more of these. The instructions given last month may be continued. Many of the plants will now

be in full beauty, and will remain so for some time if removed to a north house or other cool situation. The green-fly attacks the plants at this season, but a slight fumigating will remove it, without injuring the plant or flowers. Look well to large plants, and see that they are tied out as wide as possible, and kept clear of all decaying leaves; keep them, too, as near the glass as possible, to prevent their drawing. If not already done, prepare soil, by putting equal parts good turfy loam and partly decomposed stable manure together; throw these into a heap, that they may ferment; turn occasionally, to thoroughly amalgamate.

Cold Frames.—See our last calendar; and finish all the propagating for the flower garden as quickly as possible, to enable them to get properly hardened off by planting time. Some of the hardiest things, as *Calceolarias*, *Lobelias*, &c., may be removed to turf pits, to be protected with canvas; this will allow more room for more tender things requiring glass. Soft-wooded plants may yet be propagated.

Conservatory and Show-house.—The training of conservatory climbers is always a task of some difficulty, as they should, as far as is practicable, be allowed to grow in a natural manner, to avoid the appearance of formality. *Tacsonias*, *Passifloras*, *Mandevillas*, and *Jasminums*, will now be breaking, and the young wood will require tying in; let this be done agreeably with the suggestion given above. *Kennedias*, *Hardenbergias*, and climbers of this class, when out of bloom, should have a portion of the flowering wood cut away, which will encourage a freer growth. No plants are more pleasing and cheerful for the conservatory than these when well managed. Rough open turfy peat and sand, with plenty of water during the growing season, and kept comparatively dry through the autumn, suits them best. The very beautiful *Lapageria rosea* also bears similar treatment, and should be in every greenhouse. Stove and other plants intended to decorate the conservatory from July to September should now be looked after. *Allamandas*, *Clerodendrons*, *Vincas*, and even *Ixoras*, *Dipladenias*, and *Justicias*, will do well in the conservatory, during the above season, if grown on well till May, and then gradually exposed, so as to harden them by degrees. *Balsams*, *Globe Amaranths*, and many other annuals may be also grown for this purpose. *Brugmansia suaveolens*, if grown in pots, should now have the old soil shaken from their roots, and repotted in very rich compost. There are now several kinds of *Daturas* (belonging to the above class), which make capital conservatory plants. Nor should we forget such things as *Cannas*, *Hedychiums*, &c., all valuable when got forward in good time. Sow also the autumn blooming *Tropæolums*, as *Triomphe de Gand*, and *Ipomœas*, which are splendid objects as conservatory climbers through the autumn. Look to the present inmates. Remove plants on the wane, and replenish with fresh introductions coming into bloom. Roses should now predominate. Let every care be taken to keep the house and plants in the best order as regards cleanness, and when re-arranging, introduce as much variety in the general effect as possible.

Dahlias.—Propagating freely now should be adopted. Plants struck

during the first three weeks in April, will be in ample time, yet not so forward as to become stunted before planting out time. Pot off first struck cuttings, and keep them growing, if but gently. Start old roots in the bottom of vineries, or any spare place where no increase is desired, but *only* the old plants, which will be forward and strong. Seed should now be sown.

Flower Garden.—This month is quite as important to the flower gardener as May, as he will now be busy preparing the soil in the various beds for their forthcoming inmates, and he will also have to sow and transplant many things hardy enough to stand the climate. All vacant spaces in the herbaceous beds and shrubbery borders may now be sown with hardy annuals, having first well broken up the soil, and made it fine to receive the seed. Finish pruning Tea and China Roses, also any others left at the general pruning. Prune and train wall climbers, &c., and let the whole of the ornamental shrubs, requiring cutting in, be done, that the borders, &c., may be made tidy, after which they will only require hoeing and raking occasionally. Provide stakes for Hollyhocks, &c., and the proper supports for all tall plants. The Grass in many places requires mowing; don't let it grow too long, if you wish for a close bottom.

Forcing Ground.—Earth up Potatoes in frames, and the spring raised Cauliflowers. Lettuces, pricked out in frames, may be transferred to the open ground, towards the middle of the month; harden them well before removing, by allowing the sashes to remain off day and night for a week. Prick out the first crop of Celery on a slight bottom heat. The soil should be rich and very shallow, and the plants kept close to the glass, to have them stocky and well rooted by the first week in May. Where Leeks are required early, it is a good plan to raise them on a little heat under glass, and then transplant.

Fruit (hardy).—Hitherto the weather, though wet and stormy, has been favourable. Apricots have set their fruit, and Peaches are in full bloom. Finish pruning and nailing as quickly as you can. Figs are generally the first to be looked to. Have your protecting materials ready. We don't know what April may require yet, but it will be well to be forearmed. Raspberries may now be shortened back if not done; and if part are cut back to a foot from the ground they will produce a succession, carrying on the supply from the main crop till the double bearing ones come in.

Greenhouse (Mixed Plants).—Any things tolerably hardy, which can be removed to some kind of shelter, may now be cleared out, to make room for better things. Tie out Pelargoniums and other specimen plants. Epacris, when out of bloom, should be well pruned in, and kept at the warm end of the house for a time, to encourage them to grow again. Heaths and similar plants should occupy the most airy and lightest places. Give plenty of air, and towards the end of the month a little may be left on all night, but only when the weather is mild.

Kitchen Garden.—All the crops above ground will be benefited by having the soil frequently stirred between the plants in dry weather, nothing conducing so much to a vigorous growth as moving the surface.

Keep up the required succession of vegetables, according to the demand. Peas and Cauliflowers should have well trenched and richly manured ground, or the produce will be indifferent—in dry weather particularly, if the land is at all poor; in fact, deep working of the soil, and frequent stirrings of the surface, are the main points of success in growing nine-tenths of our vegetable crops. Sow a crop of early French Beans on a warm border, and Scarlet Runners may be sown towards the middle of the month. Thin out Onions, Parsnips, Lettuces, Carrots, Parsley, and Spinach, when large enough. Silver Beet may be sown towards the end of the month, as also Salsafy, and Scorzonera, which *run* when sown sooner. If you want your Rhubarb to grow as large in the stem as a tidy builder's pole, water the roots two or three times a week with guano water or other liquid manure.

Melons and Cucumbers.—Follow our last directions, and see that the heat, both bottom and top, is at all times uniform, that no check may occur—which, with Melons particularly, is most injurious. Watch for green-fly and red spider; frames and pits with these plants may be kept pretty free from these pests by occasionally washing the inside with tobacco water, with which mix a handful of sulphur.

Pelargoniums.—As the successful blooming of these plants depends on the strength and vigour of the shoots, do not allow anything to check their progress. As the branches increase in size, continue to tie them out, so as to keep them free of each other; and, also, do not permit any of the plants to be crowded. Keep the foliage clean, if needful, by thoroughly using the syringe and soft water. The time is nearly at hand for the cultivation of this beautiful flower, and any care and attention will be abundantly repaid. The early flowering plants will especially demand even increased attention, as they will be fast coming into bloom. Never allow them to get dry, as that state injures the bloom, and causes the plants to lose their leaves. Do not forget to well fumigate them, to keep the green-fly under, a pest which increases rapidly at this season. In bright weather, a slight shade will, in the heat of the day, be necessary; and, if late flowering plants are required, some must be removed now into a cold pit, to keep them back.

Tulips.—All appears promising for a good but early season of blooms.

Peach House.—In selecting the wood for next year's bearing, in some degree be guided by the vigour of the tree. Strong growing trees will require the wood to be laid in pretty thick, while weakly growing ones must have it left in much thinner; with the former, leave a large crop to check too luxuriant a growth, while weakly trees should be rather under cropped, till they gain strength. Keep down green-fly; and thin the last house, if the fruit has set too thickly. The night temperature of the early house should not exceed 60°, allowing a rise of 15° to 20° under bright sun. Syringe with tepid water once or twice daily, according to the weather.

Pinery.—If not shifted last month, the succession plants will now require repotting. Shake the soil clear away from plants at all unhealthy, or when the soil is not in a suitable state, and repot the plants in pure loam. The healthy plants should have a small shift, liberating the roots before potting; let the soil be moderately dry.





Carolina

Rosa carolina

Rosa carolina

CAMELLIA VALTEVAREDO.

(PLATE 151).

IN former volumes have been recorded the results of different growers' experience in the cultivation of this magnificent flower, and various fine kinds have been figured by us; we are, however, of opinion that the subject of our present illustration yields to none hitherto represented either in beauty of foliage or flowers. The variety must necessarily be a favourite; for who does not admire a well grown and well blossomed Camellia, with glossy dark green leaves, and bold-petalled richly coloured flowers? There are pleasing associations and peculiarities about this charming plant which mark it out above most other flowers, and it seems to bid fair to be as enduring as to its popularity as the Pelargonium or the Rose. For although our continental neighbours have poured their thousands of Camellias into the British market, and although the Camellia has been planted against walls out of doors, made to form undergrowth in plantations and shrubberies, and even employed to bedeck the greengrocer's stall, yet nobody thinks a well bloomed Camellia commonplace in character, or beneath their notice. For enlivening the dreary winter or early spring months, we know nothing equal to it, provided its culture is done justice to.

The grand display of this plant, open to the inspection of everybody, this spring, at Messrs. Milne, Arnott, & Co.'s Nursery, Vauxhall, and the wonderfully fine tree of *C. reticulata*, loaded with its thousands of blooms, at Bank Grove, near Kingston, have both tended greatly to bring the Camellia especially under notice this season. Some account of the beautiful variety, of which the accompanying is a very faithful portrait, may therefore not be out of place at the present time.

It blossomed most beautifully this spring in the Royal Exotic Nursery, King's Road, Chelsea, and to the spirited proprietor, Mr. James Veitch, we are indebted for an opportunity of figuring it. It is, he believes, an Italian kind, with, as will be seen, most exquisitely formed flowers of medium size, cupped like a Rose, and full to the centre. The habit of the plant is compact, never running into a lean lanky state if properly cultivated; foliage fine and round, and of medium size. It must, we think, be confessed to be altogether a most beautiful variety, free flowering, and holding its buds on well, especially in a London atmosphere. The plant was, we understand, originally obtained from Belgium. It is believed

to be, as stated, an Italian seedling, and the name favours that supposition; it is spelt differently by different people, but Mr. Veitch believes the proper way to be "Valtevedo."

The following are the names of a few first-rate Camellias, which should occupy a place in every collection:—

Albertus, blush, striped with carmine.

Archduchess Augusta, crimson, veined with purple and tipped with white.

Augustina superba, beautiful rose.

Beali, bright crimson.

Comte de Paris, salmon pink, edged with rose.

Countess of Ellesmere, fine rose.

Countess of Orkney, pure white, striped with carmine, extra fine.

Emelia Campioni, rosy carmine, fine and large.

Fra Arnolfo da Brescia, rose, fine form.

General Drouot, rose striped with white.

Giardino Franchetti, bright pink, slightly marbled, fine.

Halfida, beautiful rose.

Il Cygno, pure white.

Jubilee, flesh colour, striped and spotted.

Mathotiana, bright crimson, large and fine.

Queen of Denmark, crimson, shaded and striped with rose.

Reine des Fleurs, carmine, striped with white.

Rubens, deep rose, fine and large.

Saccoi Nova, same as Halfida, fine.

Storyi, beautiful pink, extra fine shape.

Targioni, white, with carmine stripes.

Teutonia, delicate rose, striped in centre of each petal.

Valtevedo, see plate.

Wilderi, fine rose.

To the above must be added a splendid new light-coloured Camellia, named "Countess of Derby," which Mr. Veitch intends offering to the public next season.

"THE THERMOMETER AT 20°, AND A FEW OTHER THINGS."

WE have had a very severe frost here, with the thermometer at 20°. The effect of the frost, followed by intense heat, is disastrous. A correspondent at Bromley Common speaks also of its malign effects on his wall trees. I was at Critchill, yesterday (April 12), the palatial residence of Mr. Sturt, and walked round the gardens with him, to see the fruit. The orchard house and glass-cased south wall, 160 feet in length, most beautifully done, groan with well-set fruit—but, outside the glass, over a large expanse of 12 feet high walls, I could not detect a single specimen. The head gardener, Mr. Newton, told me, that all Lord Shaftesbury's wall fruit was destroyed. At my friend and neighbour's garden, the Rev. Mr. Austen, who is one of your subscribers, Peaches, Apricots, and Nectarines are totally gone. One of my parishioners, who works at Langton Garden, for Mr.

Farquharson, told my groom that everything was destroyed there also. At Milton Abbey, the seat of 'Baron Hambro', except under glass, the case is the same. Except in high cold situations, where blossoms are late, I expect you will hear of disaster. I never saw trees more beautifully bloomed than they were here; but I have suffered greatly. My faithful sheets, however, kept on by day, only during violent winds and any rain, have saved me a tolerable sprinkling of Peaches. My Apricots having been cut hard for new wood, had little or no bloom, but what there was is gone. The white Nectarine has only six or seven. The red Apricot is replaced by a new tree, as its stock was old, gnarled, and twisted. My three Peach trees, which last year yielded of good fruit 196, 274, and 554, or altogether 1024, have this year 39, 97, and 119, or 255 well-set fruit, which are so dispersed as to require no thinning. I began covering on the 6th of March, which was ten or twelve days earlier than last year. Say what people will against sheets (removable), I will back them against rabbit nets or Fir boughs. If ever I change them for anything, it will be for a glass case. With regard to my white Nectarine tree, I may observe, that I attribute the failure in some measure to its being more exposed to a most violent wind, which tore even the sheets from the nails. A violent wind is most injurious to blossoms; moreover, the foliage by the sheets is preserved, and beautifully luxuriant and green, and never suffers from curl to any appreciable extent. I have no desire to open the protection question at all; let "necessity be the mother of invention." Last year, Sir John Smith's gardener covered the trees with cheese-cloth, tacked to three rafters—with a coping, very thick, of Fir boughs; and they had, in a very exposed garden, the best crop of wall fruit which they have had for years. I am, however, myself disinclined to any fixture, save that of glass casing. Reading over the other day, in your *Florist*, the protection controversy, it gave me much pleasure to see, that an old friend, Mr. Johnson, formerly head gardener to Mr. Brouncker, of Boveridge, Dorset, and now head gardener to his Grace the Duke of Wellington, at Strathfieldsaye, approves of wall fruit protection. Of course, I cannot compare sheeting to glass casing. The fruit is safer and earlier under the latter; and I believe it would never fail in such a situation, unless the trees were "stified." What is the cause of non-setting and dwindling of Strawberries in forcing houses?—Want of air. What is it that mildews Grapes?—I firmly believe that it is pent up damp, and want of dry air. The beauty of the orchard house, forcing houses, greenhouses, and the glass-cased wall at Critchill, is this,—that you can give them what air you please; the orchard house, and 160 feet of glass-cased wall can be aired to any amount, in a moment, by machinery. It is quite a first-rate performance, and, with the successful crop of fruit, is well worthy of review. I saw among the forced Strawberries, a plant of Ananias Lecoq, which I sent there, and it justified fully what I said in a previous article, viz., that I thought it would make a good forcer. The Keens were good, very good, but were not so sturdy in leaf or stem—two things most important where supernatural heat is to be borne. The leaves are of thick substance, good form, and the crowns bold; and

never once, this winter, in my exposed garden, has it ever been otherwise than a beautiful evergreen plant; its flavour I know not.

Rushton, April 13.

W. F. RADCLYFFE.

P.S. April 20.—Mr. Cranston gives me a melancholy account of the frost in Herefordshire. He says “all” the wall fruit is gone. M. Gloede says in a letter of the 18th of April—“The frost last night froze my Kidney Potatoes under bell glasses. My early Strawberry blooms are destroyed. [My old Carolinas are well bloomed, also Cremona’s Perpetual and Carolina superba, and are covered every night with sheets.—W. F. R.] The frost last night did also a great deal of mischief to the Vines—(April 17). Pears, Plums, Apricots, Peaches, and Nectarines, look as if they were safe. Apples being in bloom may suffer from such untoward state of things.” He adds, “I followed your advice, and potted a few of Lecoq Pine (Ananias Lecoq); they seem doing very well indeed, and have easily set their fruit. General Havelock, under glass, seems to be good; fruit large, well shaped, and of good colour.”

PANSIES.

THE tide of civilisation has, we are told, flowed westwards. Assyria and Egypt gave way to Greece, and Greece to Rome; and now its seat is not to be found in the city of the seven hills, but on the banks of the Seine and of dear dirty Father Thames; while already others are pointing to the far-off shores of the Atlantic as the future seat of its triumphs. Somewhat different has been the course of *Pansy civilisation*; it seems to be rapidly retiring northwards, and our friends on “t’other side of Tweed” must, I fear, now be looked upon as the “leaders of progress,” as far as it is concerned. Time was when its historians, and it may be its poets, lived “down south;” but alas, some of those who thus chronicled its beauties and its victories have been deserted by their own children; they have transferred their affection, and their presence too, to those who will certainly take care of them, but who are not their own legitimate papas. In the north of England, too, as well as Scotland, there are still eminent growers, but certainly in the southern parts of the kingdom we have but little evidence of our former attention to this beautiful spring flower.

As I stood opposite my small frame of four or five dozen plants (not the worst sorts out, let me inform you, my good friend), and saw Lord Derby, with his two black eyes (I suppose given him by his next neighbour, little Lord John), and Sir Colin Campbell looking rather whiter than I fear he does now, after his Oude campaign, and John Gough, ready for a lecture on temperance, I wondered whether, as they looked so hard at me, there was anything on their minds, for they are a contemplative race, as their name Pansy (*pensée*) implies—and whether they would enlighten me on the subject. I asked them whether I had bestowed care enough on them, or whether they could point to any neglect of which I had been guilty? No, they gave me credit for

being a very good master, that I had given them plenty of grub—no, not *grub*, for that was vulgar, and, besides, might be interpreted to mean *maggot*—food, then, and of the best quality. Were their quarters comfortable? Oh, nothing to complain of. What, then, *was* the matter? There was a little disputing and questioning about the answer. I thought I could hear “Go on, speak”—until at last Her Grace of Sutherland, apologising for assuming so prominent a position, but saying that she had been requested to speak for the rest, replied, “Our sorrows and troubles all arise from one cause—comprehended in one word, *heat*. It is, I know, a delicate subject for a lady to touch upon, but still I must do it; it is not that there is any moist heat, for, alas! we are too shrivelled up for that. Why, Sir, I, who am regarded as one of the most distinguished ladies of the court—I appeal to Her Royal Highness the Princess Royal (Scholefield’s) whether it is not so—look like a shrivelled up old woman before the season is over. It grieves and irritates me, I am sorry to say, excessively, to hear people standing by us, and saying, ‘What a splendid summer! how gloriously hot! what a sunless sky!’ Why, Sir, these are the very things which kill us, and we may well echo the cry of the frogs of old, ‘What is play to you is death to us.’ In fact, we have been so scorched and dried up and withered, the last three years, that I am now determined to forsake the south altogether, and take up my quarters at Dun-robin, N.B.” Pleased to find that I was not in fault, I thought it well to write and ask some of those who grow the flower, whether this were true, and from many quarters I got the same reply. Messrs. Dodwell, Bayley, & Co. say they have great difficulty in keeping them, except in very sheltered positions, where the sun cannot get at them. As to Slough, the decadence is piteous; it used to be worth a journey there, to see them in early spring—fine splendid blooms. But, alas! now “Ichabod” must be written on them; for, in truth, their glory *has* departed—they no longer form part of Mr. Turner’s stock, and are struck out of his Catalogue altogether, while Mr. Salter says, “I have been obliged to give them up, or rather they have given me up, for the last two seasons. I have tried them in all situations—fully exposed to the sun, half shaded, and full north, but all to no purpose. I had, three years ago, a fine and very large collection of varieties of which I was the originator, numbering about 100 varieties; but I have since that time (1856) lost all. I believe the very dry weather of the last two years to be the cause. As we go further northward we hear a different story. “We have no difficulty,” say Messrs. Downie and Laird, “with Pansies; they thrive very well, and we have now upwards of 5000 plants.”

“Happy, happy pair,
None but the brave deserve the fair.”

Yet I am not quite sure that this is all; for Mr. Lightbody says, “Our Pansies here go off in the most unaccountable way—whole beds of them at one time.” Ah! thought I, that is something like us. But can the heat affect them in the cold regions of Falkirk, where frosts often occur in June. I suppose that other Scotch growers suffer, if I may judge from the scrubbiest lot of plants I ever saw, which came from

a nursery which shall be nameless. There may be exceptions to the rule, but I am tolerably well persuaded that the intense heat of the last few summers is at the bottom of our difficulties, and that to keep them we must use our utmost ingenuity.

So much has been written, and so well, too, upon them, and separate treatises certainly have said nearly all that can be said, that there is little room to add more; there are, however, one or two points connected with the difficulty we have lately experienced, that I may as well notice. I speak only as far as pot culture is concerned. Now, unquestionably the only plants for this purpose are those that are struck late—early struck ones being lanky, and apt to throw out a number of stems; but as the old plants are very likely, during the summer, to go off entirely, cuttings should be taken in the spring months when they are fit, and these, planted out in a shady place, will make good plants to take autumn cuttings from, while the old plants should be cut down as soon as the blooming season is over, and also placed in a shady situation. I am inclined to think that if they were plunged the roots would be kept cooler, and they would be less likely to perish. I am so dreadfully exposed to sun, that it is almost impossible to carry out my own directions; but if your plants are treated thus, they will probably have thrown out, by the end of August, some fresh shoots; these are to be taken off, then, and put under a handglass, the glass itself being filled up with mould nearly three-fourths of its length. Each cutting must be firmly pressed in, so as to leave no cavity between the bottom of the cutting and the soil, freely watered, and the top of the glass only to be put on in severe weather. This is the plan adopted by Mr. Banks' gardener, and the result is, that he generally has a nice lot of well rooted, healthy plants by the first week in October; these are kept to one stem, and in the spring they make very handsome pot plants.

Surely, there is no need to say a word in praise of this beautiful flower. It comes to us in early spring, like the swallow, a herald to us that summer is coming on. As a friend and neighbour says, "they wake one up," and tell us that all our watchfulness and toil during the winter will be now repaid; and although there is not that variety in them that there is in many flowers, yet they are so exquisite in shape, so velvety and rich in texture, that they are universal favourites; and were they more easily propagated, they would be more generally grown.

I subjoin a list, to which I am indebted to Messrs. Downie and Laird. The varieties marked with an asterisk I have seen, and know to be good:—

SELS.

Admiral Dundas (Horsburgh)
Cloth of Gold (Nairn), yellow
Charles Mcintosh (D. & L.), dark
*Jeanne (D. & L.), shaded dark
*J. B. Gough (D. & L.), fine dark
*Lady Belhaven (D. & L.), black
*Ventas (Turner), white

YELLOW GROUND.

Bacchus (Turner)
Cyclops (Bayliss)

Duchess of Wellington (D. & L.)

John Lofley (Oswald)

*Sir John Cathcart (Turner)

Mrs. Hope (D. & L.)

WHITE GROUND.

*Countess of Roslin (Lang)

*Colonel Wynham (Lang)

*Louisa (Read)

*Royal Standard (D. & L.)

*Sir C. Campbell (Paton & Small)

Miss Caroline Saddler

Deal, April 20.

D.

HANGING BASKETS.

THE employment of these at the Crystal Palace and other places with such good effect has rendered them fashionable. They are often, however, used where they are entirely out of place, and the reason is obvious. There are few baskets like those at the Crystal Palace; the latter, being large and capacious, contain sufficient soil to supply the necessary requirements of their occupants for a length of time. And in many instances the plants which ornament them are not grown in them; in fact, they are plants in pots arranged for effect. Widely different from this are the baskets generally met with. They are often small and fantastic in form, and are not of sufficient size to contain a quart of earth. In these are placed a variety of plants, which, overhanging the occupants in airy conservatories, are unable to withstand our summer's sun, perish by degrees, and, instead of becoming and being ornamental in themselves, they detract greatly from the general interest of the house they are intended to decorate. In a close shaded stove, baskets may be judiciously employed, and of almost any size. But under the circumstances just alluded to, it would be well to use a little discretion in the selecting and placing of flower baskets, taking care to see that they are replenished or removed when no longer ornamental.

GEORGE WESTLAND.

Kingston Hall, Nottinghamshire.

SEEDS AND SEED SOWING.

THERE are very few persons who will deny the importance of sowing *good* sound seed. On the quality of the seed depends, in no small degree, the quantity and quality of the future crop. If the seed sown be sound and perfect, the crop will, all other conditions being favourable, be good; but if the seed be unsound and immature, no other conditions, however favourable, will secure satisfactory results. When, therefore, people purchase seed, they should see that they get it good, and not rubbish.

Unfortunately, too many people now-a-days, acting on the penny-wise and pound-foolish principle, are silly enough to buy any kind of trash, because it happens to be cheap. They either do not know, or they forget, that though they may get a great *bulk* for their money, they have made a bad bargain. They do not know that 50 or 60 per cent., and sometimes considerably more, of their *cheap* trash is mere dead matter, and the remainder very inferior seed; so that in reality good seed is always the *cheapest*, as 1 lb. of it sound will give more satisfactory results than 6 lbs. of bad stuff. This catching at cheap bargains is one of the great besetting sins of the age. There can be no difficulty in procuring good seed, as nearly all the respectable seedsmen annually inform their "kind patrons and the public at large," that "especial attention has been paid to the growth and

selection of their stock." Those, therefore, who want cheap, because good bargains, by applying to these, and paying a fair remunerative price, will not be disappointed.

Having obtained good seeds, there are two or three points of essential importance to be attended to ; the first is, that the soil is in a proper condition to receive the seed ; the second is, that all seeds are properly covered ; and the third is, that all seeds are sown in proper season. With regard to the first point, we may remark that, before any soil is in a condition fit to receive seed, it should be well drained, deeply dug, well pulverised, and if at all poor, it should have plenty of well rotted manure forked into it. We have oftentimes seen seed out of the same bag sown—one portion on properly prepared land, and the other part on land in a bad condition, and the results invariably were,—that on the properly prepared land it produced most abundant crops ; and that on the land in bad condition it either perished altogether, or yielded badly. Inexperienced persons, when they sow good seed on land in bad condition, and find it either fails altogether, or turns out badly, are very apt to blame the seeds ; and the seedsman, as a matter of course, is grumbled at, or gets the name of a dishonest tradesman, when in reality the fault laid with the person who sowed on badly prepared land. There are few practical men but have known cases of this description ; we, ourselves, have often heard people say, " How is it, Mr. So-and-So, that my seed, which I got from Mr. Somebody, the seedsman, turned out badly ? some failed to grow altogether, and the other part turned out badly ; I will not get my seeds any more of that seedsman." We have sometimes inquired (but not always, for this class of persons is frequently very knowing) if the soil was in proper condition when the seed was sown ; and have always found, that when good seed had been sown and perished, one of the causes was owing to the land being in bad condition.

With regard to the second point, that all seeds should be properly covered, we may remark, that this is a point which is very frequently badly performed, either from ignorance or negligence. It is not unusual to see small seed buried to so great a depth that it is impossible for it to grow. All the smaller kinds of seeds cannot be covered too lightly, if only the surface be kept uniformly moist and shaded ; but most of the larger kinds of seeds do best when covered a moderate depth—say one, two, three, or more inches, according to the kind. Many failures arise from want of attention to these matters.

With regard to the third point, that all seeds should be sown in proper season, we may remark that this is a matter of the utmost importance. Of course, we would not insist on anything being sown always at a stated time, as the weather and the state of the land will more or less rule these matters. But, if the weather and the land be favourable, not a day should be lost in sowing seed when the proper season for doing so arrives. The above points are all within the control of man, and when properly attended to, and good seed is sown, the results will in general be satisfactory, unless the seasons, which are above the control of man, be very unfavourable.

Cold and wet are always injurious to seeds, and must be always

guarded against as much as possible. In very dry weather small seeds will occasionally require to be watered and kept shaded. Seed culture is a subject of the greatest importance; and a neglect of attending to the conditions that are absolutely essential to success has not unfrequently brought blame on many a respectable tradesman.

M. S.

ROYAL NATIONAL ANNUAL EXHIBITION OF TULIPS.

IT will be seen on reference to the advertisement that this annual treat to all lovers of the Tulip is to be held this year at the Royal Nursery, Slough, on Friday, May 20. By this arrangement many advantages will be secured not only to Tulipomaniacs, but also to all lovers of flowers who can manage to get down there. The former will have the opportunity of seeing one of the very finest beds of Tulips in the kingdom, and which this year will be in prime order, owing to the very favourable season through which we have passed. A sight of this bed alone, independently of the blooms that will be staged, will be a treat which all enthusiasts in this flower (and there is not one that boasts of more ardent ones) must feel will well repay them. The general lover of flowers will be enabled to see the very admirable collection which Mr. Turner grows, and I can answer for it, that if they have never seen his *Pelargoniums "in situ,"* they have a rich treat. I was there last year, and endeavoured to give my brother florists a slight sketch of the treasures I there saw, but all description must fall far short of the reality. The three kinds—fancy, florists', and French—will be in excellent condition, for it will be the best time for seeing them: they are so fresh, so full of bloom, and will not yet have experienced the scorching sun sufficiently to spoil their beauty in any way. Then there will be banks of Azaleas in their rich and varied colourings; and what can be more lovely than these, from the snowy whiteness of Gled-stanesi on to the rich glowing crimson of Duke of Devonshire? There may be, too, a few Auriculas, but the bloom has been so early that it can be but the remnant of a large collection that can be seen.

A stroll through the nurseries will show the visitors the perfect order in which everything is kept, and there is a freshness and cleanliness about a well kept country nursery that can never be attained in the neighbourhood of London. As Mr. Turner annually throws open his grounds for the exhibition of his own Tulip bed, and goes to the expense and trouble of fitting up a large tent for the staging of his other flowers, it will be no novelty to him, and visitors may be thereby assured that everything that can administer to their comfort and effect their wishes will be attended to. And let it not be forgotten that in all this Mr. Turner acts without any reference to his own exhibition; he is honorary secretary, and does not stage a single flower of his own. The expense consequent on such a show is not a trifling matter, and he naturally looks for the increased support of his friends and the public, and in this I believe he will not be disappointed.

Deal, April 25.

D.

NEW ROSES.

THE following extract from Mr. William Paul's admirable "Rose Annual for 1858-59," will furnish our readers with that excellent grower's opinion respecting the more valuable of our recent additions to the "Queen of Flowers:"—

"On looking through the varieties which flowered for the first time in England during the past season (1858), we find nothing very new or striking in character, but many valuable improvements on existing kinds. Among the Hybrid Provence we note *Gracilis*, one of those pretty but somewhat rare flesh-coloured flowers of exquisite symmetry, flowering most abundantly.

"*Reine blanche* is a new pure white Moss Rose, faultless in shape, and of vigorous habit. It resembles *Madame Hardy*, both in form and colour.

"*Cinabue* is of another race, belonging to the Hybrid Bourbon: the flowers are large and full, of a velvety crimson, with a brighter shade in their centres; the colour is particularly rich, and the growth vigorous.

"The group known as Hybrid Perpetuals furnishes us, as usual, with the longest array of names: *Duke of Cambridge* is a large, close, crimson Rose, of good shape; it approaches nearer to *Baronne Halez* than to any other, but is of a darker hue. The constitution of the plant is unmistakeably good, and the foliage handsome. *Evêque de Nîmes* is, perhaps, the greatest novelty of the season, and unquestionably a gem. The flowers are of the richest crimson, of average size, containing an abundance of petals, which lie closely the one over the other, in the way of *Paul Dupuy*, and many of the *Gallica* Roses. The foliage is particularly stout and handsome. *General MacMahon* is a promising Rose, with rosy-carmine flowers; the shoots and leaves are of a dark green, almost thornless. *Gloire de Lyon* is one of the numerous progeny of *Géant des Batailles*. It appears to possess the constitution of its parent, and flowers as freely; the flowers are dark purplish red, changing to blackish violet. This will probably prove a valuable dark Rose for planting in masses. *Lælia* was exhibited in fine condition at the National Rose Show. It is a very large flower, something in the way of *Louise Peyronny*. *Lord Palmerston* is a plant of vigorous growth, with a good deal of the Bourbon blood in it. The flowers are cherry pink, very bright and beautiful, not large, but of good form, and produced abundantly. *Louis Chaix* is a brilliant velvety crimson Rose of vigorous growth, blooming freely, and producing flowers almost above the average size. I find it marked in my diary 'a large and handsome edition of *Géant des Batailles*.' If *Louise d'Autriche* will but expand its flowers, it will prove a great acquisition. It is a seedling from *La Reine*, producing large full flowers of a violet red colour. *Madame Van Houtte* is a very pretty Rose, producing flowers of a delicate satin-like rose colour; the flowers, although not large, are pleasing, from the great regularity with which the petals are disposed. *Madame Vigneron* is a very superior new Rose, and possesses some

claim to the title of distinct. The flowers are of a delicate peach colour, large, full, and of good shape, the petals are round, and of thick substance. Mademoiselle Godard is a large well-shaped flower, of a glossy lilac rose colour; the growth is vigorous. Mademoiselle Henriette deserves a place in every collection. The style of growth resembles that of Madame de Cambacères; the flowers are purplish crimson, of globular and good form, large and full; it flowers abundantly, and is very sweet. Maria Portemer produces purplish crimson flowers, which are large, full, and most exquisitely cupped; the petals are also of great substance. The flowers, which expanded here during the hottest days of June, were singed at the edges by the sun, but this might have been accidental, rather than constitutional. Marie Thierry is a good flower, of a lilac rose colour, cupped, large and full. Maximilian II. is also a good dark purplish crimson Rose. Monsieur de Montigny resembles La Reine, from which it is a seedling: the flowers are of a purplish rose, much darker in colour than its parent; large, full, and of fine shape. This is a splendid Rose, but probably a little uncertain. Queen of Denmark is a very large, full, flesh-coloured Rose, of good quality. The colour is much like that of the old Alba Rose of the same name, but the build of the flower closely resembles that of Baronne Prevost. Thomas Rivers, a seedling from Colonel Foissy, is of a brighter and more cheerful colour than that variety; the flowers are larger, but scarcely full enough. Triomphe des Beaux-Arts, said to surpass General Jacqueminot, from which it is a seedling, has become an object of more than common interest. The flowers produced here scarcely enable us to endorse this statement, although they have left upon the mind a favourable impression. Triomphe de Montrouge is in the style of Standard of Marengo, but apparently of larger size, more double, and of hardier constitution: the form of the flower is cupped, the colour crimson, the outside of the petals whitish.

“By those who are interested in Perpetual Moss Roses, Ma Ponctué will no doubt be hailed with satisfaction: the flowers are rose colour, covered with small white spots, very pretty in bud, and produced abundantly. Madame de Stael is a promising variety, with soft, rosy, flesh-coloured flowers, full, and of unexceptionable form. Validé produces flowers of a bright rosy carmine, which grow paler soon after expansion: the outline is good.

“Among Bourbon Roses, Caroline Rignet is an acquisition, on account of the scarcity of good white autumnal Roses. The flowers are pure white, not large, but of good form and full: the plant is of vigorous habit, and flowers abundantly. Josephine Clermont is a very pretty pink Rose. Madame Contesse, a seedling from Louise Odier, is a peach-coloured flower, not large, but full and well formed: the plant is of vigorous growth. Madame Elisa de Chenier, a variety much in the way of Armosa, blooms most abundantly, and will probably prove valuable for planting in masses: the flowers are bright pink, of fine colour, but scarcely double enough; the petals are smooth and round. Monsieur Jard is a large, full, imbricated Bourbon Rose, with flowers almost cherry colour.

“Claudia Augustin, belonging to the Noisette, is an addition to our

climbing autumnal Roses. It is a seedling from Ophirie, which it resembles in habit: the flowers are white, with yellowish centres."

Let us add, that the work from which the foregoing extract is taken is intended to be published once a year, virtually as a continuation of the "Rose Garden and Supplement," which brought down the information on Roses, descriptive and cultural, to the year 1853.

The present number contains charming illustrations of Louis Chaix (of which a representation was given in our pages for December last); Madame William, a yellow tea-scented Rose, which was much admired when shown in St. James's Hall last spring; Lord Palmerston, a Bourbon Perpetual, whose habit and constitution is stated to resemble Louise Odier, but the colour distinct and more striking; and last, but not least, a small Perpetual Moss, called Empress Eugenie. "There are no fewer," says Mr. Paul, "than three different Roses named in compliment to the Empress Eugenie, so loyal and gallant are our Rose-loving neighbours, the French. Those who admire this kind must take care that they obtain the right one. Unlike the preceding kinds, the present does not belong to the showy and effective, but it is one of those perfect little gems which the close observer of nature would be content to dwell upon. The plant is of dwarf growth, but not delicate: it delights in a rich soil, requires close pruning, and is even more beautiful in the forcing-house than when grown out of doors. It was raised from seed by Monsieur Guillot, of Lyons, some two or three years since, but is still scarce, both in France and England."

THE HORTICULTURAL SOCIETY'S "GRAND" SHOWS IN ST. JAMES'S HALL.

MR. EDITOR,—I implore you to hear my plaint and to plead my cause. I am a deeply injured, highly respectable, and numerous section of the family of Flora, and for many years have been, and still am, a great favourite with the ladies, and have always, until this present year, been invited to assist at the horticultural fêtes, which used to be so much admired at Chiswick; and, indeed, I never before heard that any one in any place had for a moment thought that a show could be a show unless I was present; but, alas! a change has come over the "spirit of my dreams," I mean, over the spirit of the "powers that be;" and in the schedule which the Society sent forth for the *grand* spring and summer shows, it has entirely left me without invitation or place; and, indeed, it has done the same shabby and ungrateful thing to my esteemed friends the stove and greenhouse plants, which I always used to meet and admire on those occasions with so much joy and pleasure. Wishing to put as charitable a construction as possible upon this slight, I thought perhaps the Society could not find room for all. But surely that cannot be; it must be this, and nothing else—the Council have got their greengrocer to prepare the schedule, and he, to suit his own trade, has left us out, and put in our place seven classes of Greens, and offered fifty guineas prizes for them. Thus, at the grand

summer show (the Green show), there are only three flowers invited (except cut flowers). Is not this cutting with a vengeance? Orchids, some French and fancy relatives of mine, and Roses—all highly respectable, certainly, but not enough to constitute a “grand show.” It is too bad, Mr. Editor; it is enough to make the “blood boil” in every petal of us. It is too bad of the Council to let the greengrocer do it; and I’ll tell you what I and the stove and greenhouse plants think would be the right course, and a wise one—and that is, for the L.H.S. to hand over the whole business of flower shows to the R.B.S. They could and they would do this business as it ought to be done, with justice—aye, and with kindness to all; and we should not any longer be subject to such “misdeeds.”

Yours, much injured,

PELARGONIUM.

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

April 6.—The second of the three spring exhibitions took place on this occasion. In the class of New Plants Messrs. Fraser sent the handsome Madeira *Musschia Wollastoni*, not however yet in bloom; Messrs. E. G. Henderson had *Gastrolobium spectabile*, a neat shrub, with good foliage, and gay orange and crimson flowers; the same exhibitors likewise sent *Aucuba himalaica*, a distinct hardy shrub, with shining green leaves, having distinct white-tipped teeth; Messrs. A. Henderson and Co. furnished *Griffinia Liboniana*, a rare plant, with prettily spotted leaves and flowers tipped with blueish lilac; Messrs. Ivery and Son, of Dorking, exhibited a small blue-flowered *Hardenbergia*; Messrs. E. G. Henderson also had *Rhododendron Blumei*, a species with small creamy-yellow flowers; and *Pentapterygium flavum*, with axillary racemes of white *Vacciniaceous* flowers. Of Miscellaneous Plants Mr. Cutbush, of Barnet, had a collection in which a fine mass of *Begonia Rex* was conspicuous; Messrs. Fraser, Cutbush, of Highgate, and Messrs. A. Henderson, also showed in this class. *Cinerarias* came from Messrs. Dobson and Turner, and the latter also sent *Roses* in pots. Of *Amaryllises* Messrs. E. G. Henderson had a collection which contained one kind (No. 64) of a rich light scarlet, with a white central star, and of superior form; it was shown without name. Messrs. E. G. Henderson contributed a mixed collection of plants, both in and out of flower, containing many novelties, some of which were reported on at the meeting on March 23. Of the more striking, not already noticed, were *Camellia De La Reine*, a fine large delicate rose-coloured flower of excellent form and slightly cupped; *Rhododendron jasminiflorum*; *Lomatia siliifolia* and *heteromorpha*, two extremely elegant Fern-leaved plants; *Araucaria glauca*, &c. Mr. Turner had a well-grown collection of 12 *Auriculas*, among which was a fine old kind called *Imperator*, a green-edged variety of first-rate properties. Messrs. E. G. Henderson received an award for three standard *Azalea indicas*; and Mr. Turner for Seedling *Cineraria Brilliant*, a free-blooming variety of medium quality, remarkable for its rich dark

purple-crimson flower heads; also for the following:—Seedling *Cineraria* Duchess of Sutherland, a large bold variety, the florets white in the lower half, rose purple in the upper; for Seedling *Cineraria* Highland Mary, pure white, bold florets, purple disk; for Seedling *Camellia* Eleanor, a fine bold cupped, smooth-petalled, bright rose-coloured variety; and for 12 Hyacinths, shown in good variety and well grown. Mr. G. Macintosh furnished a collection of Tulips in considerable variety of form and colour. To Messrs. Paul a prize was given for two plants of Madame William, a Tea scented Rose, with beautiful yellow flowers. This, it will be remembered, was shown in excellent condition at a meeting of the Horticultural Society, in St. James's Hall last year, where it was greatly admired. Mr. Bragg had a stand of Pansies, as had also Mr. James of Isleworth; and Messrs. A. Henderson sent a dish of their new Australian Cress. From Messrs. Smith of Dulwich came Seedling *Cineraria* Lord Clyde, a dwarf free-blooming variety, with bold nicely cupped florets of a deep purple crimson. *Cineraria* Acme of Perfection from Messrs. Smith, previously shown, proved to keep its good character, as did another variety named Hilax, shown by Mr. Holland of Hounslow. In addition to the foregoing, Messrs. Milne, Arnott, and Co., of Vauxhall, had *Azalea* Duchess of Wellington, a loose white; Mr. Turner variegated *Pelargonium picturatum*, a white-edged, grey-blotched kind with a broad pink horse-shoe mark, and Seedling *Camellia* Lady Mary Labouchere, a veiny light rose with a tendency to be blotched, a cupped variety but with ragged petals as shown; and Mr. W. Ivery of Peckham, *Azalea* Queen Victoria, a free-flowering kind, white striped with purple. Some other seedling *Cinerarias*, *Fuchsias*, *Pelargoniums*, &c., of inferior quality were exhibited.

April 20.—This, the third and last of the spring meetings, was extremely gay with *Cinerarias*, *Azaleas*, *Pelargoniums*, *Auriculas*, and numerous other early flowering plants. In new plants Messrs. E. G. Henderson received the first prize for *Fremontia californica*, a shrub with large open yellow flowers. Its habit appeared to be a little straggling, but as it is hardy it will become a useful plant. *Bejaria microphylla*, from the same firm, a small plant with pretty pink flowers, to which a certificate was awarded. The following also received certificates:—*Azalea* Perfection, rosy lilac, finely marked, and of the most approved shape. This plant was the most admired of the exhibition. *Cineraria* Incomparable, bright crimson, with white ring and dark disc; Slough Rival, white with rich violet purple edges, black disc, both of excellent shape. These were from Mr. Turner. Mr. Cutbush sent variegated *Geranium* Beauty, with pink flowers. Mr. Ivery a semi-double *Azalea*, *Leviathan*; Messrs. A. Henderson and Co., *Cyanophyllum magnificum*, a species of *Datura* from Australia, with large straw-coloured blooms; Messrs. E. G. Henderson also had certificates for *Todea hymenophyllum*, *Arthrotaxus Doniana*, *Lomatia Bidwilli*. Mr. Standish, of Bagshot, sent cut branches of a pretty hardy shrub, with a profusion of white flowers, named *Exochordia* (*Spiræa*) *grandiflora*. There were also *Clematis lanuginosa* and *pallida*,

Sikkim Rhododendrons, and Azalea Rei Leopold, a good kind. In collections of 12 stove and greenhouse plants, Messrs. Fraser were first with a well bloomed group, the best of which were *Azalea sinensis*, *Medinilla magnifica*, and *Erica Syndriana*. Mr. Cutbush, of Barnet, was second. The same was first for 6 Azaleas, Messrs. Fraser second; both were poor. Cinerarias from Messrs. Turner, Dobson, and Holland, formed a bank the entire side of a table. Mr. Turner's, all new, were Beauty, Brilliant, Duchess of Sutherland, Lady Seymour, Perfection, and Eclat. Messrs. Dobson's plant of Mrs. Hoyle was very fine; the others good, namely, Mrs. Colman, Lidyard's Brilliant, Baroness Rothschild, Admiral Dundas, and Picturata. Mr. Turner also received first prizes for 12 Auriculas, 6 Pelargoniums, and French spotted Pelargoniums. Cut Pansies, with Broccoli, Asparagus, and Artichokes from France, were remarkably fine both in size and freshness. We are pleased to notice the good these meetings are likely to accomplish, and to add that three similar meetings, one in August and two in September, are likely to be held.

CLIMATE IN RESPECT TO FRUIT GROWING.

THE extraordinary vicissitudes of our English climate have never within our memory been so grievously realised as in the present season. After the frosts which occurred at the end of November we have had no winter to speak of; indeed December, January, February, and March were remarkable for unusual mildness, and this too accompanied with a high barometer and the absence of rain in many localities. Our last English winter, in fact, might have answered for the south of Italy, by its immunity from frost, and generally clear bright weather. Very early in February a number of shrubs were fast breaking into leaf, and Apricots opening their blooms; during March all went on unchecked, so much so, that by the beginning of April, notwithstanding the severe frost of March 30 and 31, the woodlands and pasture grounds presented all the appearances usually shown by the first week in May, and every description of garden produce partook also of the general earliness of the season. On the 31st of March we had 10° of frost, which, following after a snow the previous evening, did a vast amount of mischief to such fruit trees in bloom, besides destroying in several places the crop of Apricots, which were then of considerable size. Peaches had partly set, and suffered more or less throughout the country; and early Pears and Plums also. The weather became warmer, and the 4th, 5th, 6th, and 7th of April were remarkable for their great heat, the day temperature having been 82° in this neighbourhood on the 7th, and between 70° and 80° the greater part of the former three days, an extraordinary temperature for the first week of April, and exceeding by a few degrees the two or three hot days occurring later in the month of April, 1858. The weather next became sensibly colder, and on the 14th and following days indications of winter made their appearance, followed by snow storms, cold north-west winds, and frosty nights. On the morning of the 20th we had 8° of frost, accompanied

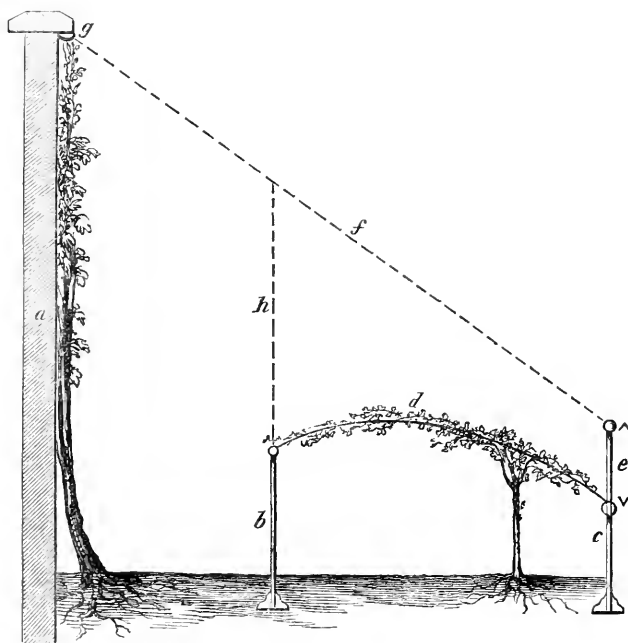
by an easterly wind; this frost has almost completed the ruin of our crops of Pears, Plums, and Cherries, excepting perhaps those in some favoured locality, or which had ample protection, a thing almost impossible to effect within the means of an ordinary garden expenditure, to say nothing of orchards and open garden fruits.

We have so frequently advocated orchard-houses in the *Florist*, as an almost indispensable auxiliary to a fruit garden, that we need not go further in that direction, excepting to remind those of our readers who doubted their ever becoming a substitute for brick walls, that their manifest increase throughout the country affords the best evidence of their utility, and that our recommendation for their being adopted was sound advice, borne out by the experience of all who have tried them on rational principles. We therefore leave orchard-houses out of our present calculations, to see how far it is practicable to ensure crops of fruit, during such weather as the present, without the assistance of glass.

A well-arranged garden, surrounded with walls, with its quarters well furnished with bush or pyramid-shaped Pears, &c., and its divisional and surrounding walks margined with choice espaliers, is a thing to admire, more especially when the trees are in bloom, and give hopeful promise of an abundant return for all the trouble and anxiety they cost. But how often, after witnessing the beautiful display of bloom, are we doomed to disappointment. One or more frosts, such as we have lately experienced, come on us without much warning; and, if warning was given, how could we entirely prevent the consequences? All is then over for the season, and the gardeners' motto of *Nil desperandum* scarcely keeps him progressing under disappointments such as these. It strikes us, we must alter our garden arrangement for fruit trees; true, we may continue to intersect our kitchen garden quarters with fruit trees, in whatever form we may fancy to train; and so we may continue to line our walks to the right and left with espalier Pears, Plums, &c.; but are we wise in spending so much money and time for such uncertain results? We think not, allowing for all the contingencies which intervene between planting and the realisation of returns commensurate with the outlay. Still, when there are means, we say, let the thing be done as now,—and, something else besides. Looking at most kitchen gardens, we shall find them surrounded with walls, from ten to sixteen feet high, which are accompanied by borders of a similar width, or perhaps wider, on which are grown different kinds of vegetables. The south borders must, as a matter of course, be reserved for the first crop of Peas, or hand-glass Cauliflowers, or early Potatoes, and so with all the rest; they are generally the gardener's choice bits of ground, on which to foster and grow up anything he wishes to do better than ordinary. We need not add that this cropping is now universally condemned as inimical to the well-doing of wall trees, which are frequently injured by the system to an extent, in comparison of which any crop of vegetables that may be raised is a sorry equivalent. We say, then, avoid all vegetable cropping on the wall borders, and prepare them for growing what fruit you may require, with a view of protecting the trees when

in bloom, as noticed hereafter. The kitchen garden walks may be margined as now, with Currants, &c., or even with espalier or bush Pears, &c., to stand their chance.

To render our meaning more clear, we will take a south wall, cropped, say with Peaches and Apricots; take the wall fourteen feet high, and the border as fourteen feet wide. Let the soil the whole width be duly prepared for fruit trees, as it generally is near the wall for the Peaches. We would then throw an arched trellis, springing two feet from the ground at front over the border, to within five or six feet of the wall, under which we would plant other kinds of fruit trees for covering the trellis, say the best kinds of Pears and Plums on south aspects; Cherries, Plums, and Pears on east and west borders; and Warrington Gooseberries and late Currants on north aspects. The accompanying diagram represents the wall and trellis, and will help to show the plan of protection recommended. When it is wished to put on the protecting material, the upright (*e*), which, however, may be permanent, should be set up, to hold the front horizontal bar, and



- a.* Garden wall, with trees.
- b.* Back support to trellis, iron or wood.
- c.* Front ditto.
- d.* Arched wire trellis.
- e.* Iron or wood upright every 12 feet, to receive a horizontal iron bar, or spar.
- f.* Wood strips or bar iron, fastened to the horizontal bar at front, and to a similar bar (*g*), under coping.
- h.* Tie from rod *f*, to post *b*, to keep it steady.

strips of wood, iron bars, or even cordage, run up every eight or ten feet from the front horizontal bar to the one under the coping (*g*). If the strips are not considered sufficiently strong to sustain the covering, wooden uprights may be substituted as a support for the tie (*h*).

The whole of the frame and supports (*c*, *f*, *h*) can be easily put up and removed, and may be used when the fruit wants protection in the autumn, equally as when the bloom requires it in the spring. It now remains to notice the best material for protecting the bloom; this should be so arranged on rollers as to draw up to the coping (*g*) when not wanted. Woollen netting is perhaps the best known protection against frost; but, as it is necessary that the bloom be kept dry if possible, a thin waterproof material is yet wanted, manufactured sufficiently thin and light, not to be inconvenient in drawing up and letting down, and yet impervious to rain. We hope manufacturers will try what can be done towards supplying this deficiency in horticultural shadings. In the mean time Shaw's tiffany, or Brown's shading, dipped in oil and dried, would answer the purpose of excluding damp and a great deal of rain, and would last for a number of years, substituting netting for the autumn, when birds, wasps, &c., only are to be kept from the fruit.

That these, our thoughts on this subject, very hastily thrown together, may require some modification in carrying them out in old gardens, we are free to admit. When new gardens or new walls are in course of formation, we see no difficulty in the matter; and we are very strongly impressed with the conviction, that a concentration of all our best varieties of fruit trees, so as to admit of an entire covering when necessary, will be found as sound in practice as it will in the end prove to be economical when glass cannot be afforded.

MODE OF SHOWING CUT ROSES.

I PERCEIVE, from your reports of exhibitions, that Roses are described as being shown in *trusses*—*trusses of three, and single trusses*; if by this is meant that a Rose truss consists of a full bloomed Rose, a bud or two and a leaf or two, as upon one stalk, it must be a great improvement upon the plan adopted at our flower shows in the country, where they compel us to exhibit single blooms stuck into a stand. To my mind no exhibition of this glorious flower can be more wretched than thus severing it from its beautiful natural appendage. The first bloomed Rose in a truss is generally the finest, and the accompanying buds and leaf go as far as the bloom itself in declaring what the culture has been. I do hope our country shows will adopt this mode, which must be regarded as a point in advance; but hitherto all protests on the subject have been ineffectual.

The most beautiful box of Roses I ever saw were shown eight or ten years ago, in trusses, and in small bouquets, bedded upon damp moss. There is a degree of repose and a charm given to the flower in such a position, so much more pleasing than a single bloom stuck in a tube upon a stand; and I think he must be a dull censor indeed who could not judge merit more easily.

W. M.

BRITISH POMOLOGICAL SOCIETY.

At a recent spring meeting of this Society, held at St. James's Hall, several new members were elected, and there was a fine display of fruit. It was announced that Mr. Newton, of Enfield Chase, desired to offer a prize of half a guinea for the best dish of six Cornish Gilliflower Apples, to be competed for at the meeting of November 17. Mr. Newton, at the same time, announced, as a matter of course, that he should not himself compete. Concerning the merits of this Apple nothing need be said; they are universally acknowledged. Upwards of 200 dishes of Apples and Pears were sent to the meeting on the present occasion, and some of them were accompanied by such descriptions of the manner in which they had been kept, as satisfied the meeting that the experiment (originally suggested by Mr. Busby at the committee meeting on the 19th August) was a very successful one. The largest and most interesting collection, sent by Mr. Rivers, of Sawbridgeworth, contained 15 varieties, all good and sound,—not over-kept, as was the case with some of the other collections. The Apples were stated to have been grown on bushes in the nursery at Sawbridgeworth in a clayey loam mixed with calcareous sand resting on hard white clay, with numerous chalk stones. *Site*.—About 60 feet above the level of the Stort, a tributary of the sea. *Pruning*.—Very slight summer pinching in June and July, and shortening leading shoots towards the end of August. *Management*.—Taking up the trees biennially in November, and replanting them; cutting off the ends of straggling roots. *Manure*.—A quarter of a peck of soot is given to each tree in March, on the surface, in a circle three feet in diameter. As regards the Pears, in replanting, some leaf-mould or rotten manure, and the calcareous sand common to the district, are given to each tree; two shovelful of the former, and one of the latter, well mixed. In March the same quantity of soot, as to Apples, is given in the same manner. The Pears are all on the Quince stock, and the Apples on the English Paradise. The Apples had been kept in a very old, dry, arched cellar, under a packing shed, the average winter temperature of which is about 50°. Air was constantly admitted at one end, through a wire grating, and flows gently through by the crevices in a very old ill-fitting door at the end opposite to the wire grating. In this way Mr. Rivers has kept Hawthornden Apples quite sound till May. The fruit is gathered, and, without any preparation, placed in small wooden compartments, in double and single layers, and never touched till wanted. The Pears were kept in a greenhouse (with Camellias) in new flower-pots, covered with pieces of slate. Mr. Cox, Redleaf, Kent, sent some fine Pears and Apples. The Pears were generally from walls, and the Apples from standards of from 15 to 30 years old, very little pruned, save by occasionally thinning the branches; great attention, however, being paid to keeping the trees free from Moss, by the use of quicklime in spring. With regard to their mode of keeping, the following information accompanied the fruit:—

“The Pears were laid out singly on the floor of an upper chamber, when gathered, and the windows kept open, so as to afford a thorough ventilation for

two months; they were then sorted over, the best selected, and wrapped separately in paper, and placed in layers, in deep boxes, the lids of which were laid on, but not fastened. The layers were separated from each other by very old dry Brakes (*Pteris aquilina*). They were not disturbed until required for use, and kept better than on the shelves of the fruit room.

"The Apples were laid in heaps on the shelves of the fruit room, and ventilation, to which great importance is ascribed, secured by leaving the door open, as well as a window at the opposite end, until the sweating process was over, when both were partially closed. Nothing more is done except sorting them over frequently, and picking out such as showed signs of decay. The fruit room is a mere shed at the back of a greenhouse, but its coolness is very much increased by a strong growth of Ivy all over the roof."

Mr. M'Laren, gardener to S. C. Whitbread, Esq., Cardington, near Bedford, had a collection containing two varieties of Pears and 23 of Apples. No particular pains had been taken with the keeping, the fruit having been thinly spread in a loft, with a little Wheat-straw under some of the best of them. (It may here be mentioned that it was quite easy to distinguish which kinds had been kept on the straw. Fruit-growers do not appear to be generally aware that choice fruit absorbs the flavour of straw, Moss, hay, or any strong-smelling vegetable matters which it is laid upon, or even packed in for a very short time). Mr. Holder, of Reading, contributed a large and interesting collection, containing upwards of 30 varieties, generally in very good preservation. They had been kept in round hampers, in an open airy barn, and covered over with sacks, or a little straw, in cold weather.

Mr. Newton, gardener to G. J. Graham, Esq., brought a collection of 15 varieties of Apples, which exhibited the results of some experiments he had made in different methods of keeping. Most of the examples were remarkably plump and fresh, and even such varieties as Golden Pippin and Ribston Pippin were barely past condition. Mr. Newton stated that, after gathering, the fruit was laid on shelves in the fruit room for about a month, to allow of a partial evaporation, and then the best were selected and packed in layers, with Reigate sand amongst them, in old butter-tubs. Some of the kinds were packed in sand just as it was dug out of the pit, and containing its natural moisture; others were packed in similar sand from which the moisture had been expelled by baking. Those in the naturally damp sand had kept in excellent condition and flavour, and were rich and juicy; but those in the dried sand had lost all their flavour and part of their juiciness. Mr. Newton mentioned, however, that last year he made a similar experiment with dried sand, but enclosed each fruit in a similar piece of thin tissue paper, and that they had kept their flavour much better. He proposes, however, next season to take equal samples of fruit of the certain kinds, and preserve them in each of the three ways above mentioned, that the Society may estimate exactly the results of each. Mr. Swinerd, Isle of Thanet, Kent, sent an interesting collection, and along with it the following particulars concerning the mode in which it had been kept:—

"The room that the Apples and Pears have been kept in is part of the old Abbey, the walls of which are two feet thick, and 14 feet from the ground. The north and east walls are exposed, and the south and west are built against with other buildings. The window is on the east wall, and has got an air-tight shutter to keep the frost out. The top is covered in with a tank that holds 16

butts of water, so that it is impossible for the frost to come through at the top. The room is entered by a trap-hatch, which is shut down air-tight. The room is fitted all round with shelves, and I never use anything but old newspapers to lay the fruit on.

"A stoke-hole and boiler for Vinery are fitted up under the room, and by opening the trap-door of the Apple room, and shutting the door of the stoke-hole, the frost can be kept out, and the room at what temperature it may be desired."

Mr. Divers sent a collection of 20 dishes of Apples, all kept in a fruit room on wooden shelves, covered with paper, and generally in good condition.

Of Grapes, Mr. Cooper, the Palace, Armagh, Ireland, sent two bunches of a black variety, very plump, fresh, and good flavoured, but without name. It was considered very closely to resemble Lady Downs' Seedling, but was thicker-skinned, and more oval in berry.

FUCHSIAS FROM SEED.

THE majority of Fuchsias ripen seed freely; but, unless they are hybridised, it is almost waste of time to sow it, for the flowers so produced are seldom equal, and more frequently inferior, to the parent plant. The operation of fertilising is easily performed on the Fuchsia, the pistil being prominent, and the pollen plentiful. In selecting plants for hybridising, it is necessary to bear in mind that those bearing the seed will communicate their habit to the seedlings, although the plants from which the pollen is taken may be of indifferent habits, provided the flowers have good properties. Having selected the flowers intended to be fertilised, cut out their stamens as soon as they open, and, when they are fully expanded, apply the pollen from their flowers, the properties of which you wish to impart: tie something round them to distinguish them from the others, and, when they are ripe, the seeds may be separated from the pulp by washing them out in clear water; the good seed will sink to the bottom.

The seed may be sown in spring, in a pot of light soil, and placed in a greenhouse; they do not require much heat to vegetate them; at least I have found them come up quite as well, if not better, without it, and the plants so produced are much stronger than those raised in a higher temperature. As soon as they are of size to handle nicely, pot them singly in small pots, and place them in a light airy situation; if they are grown in a close atmosphere, it tends to draw them out weak and lanky, so that the true habit of the plant is not seen; shift them into larger pots when necessary; a 4 or 6-inch pot will be large enough, as large shifts only tend to keep them growing, and retard their flowering; they should never be topped or pruned until they flower. The principal object is to mature their growth quickly, so that the flowers may be seen as soon as possible. Many of them will bloom the same season; after they have done growing, and the foliage drops off, they should be sparingly watered, and be kept almost dry all winter. The following spring, water them freely, and, when they show signs of

growth, place them where they will have plenty of air and light, but do not shift them until they flower, for reasons before mentioned. I prefer flowering seedlings out of doors, after all danger of frost is past, as I have invariably found that the colours come brighter and more distinct than when kept in the house. It is desirable, however, to choose a situation where they will be somewhat shaded from the sun in the hottest part of the day.

The Fuchsia is not very particular as to soil; any good garden mould will suit the plants well enough, provided it is of a free porous texture, and the pots well drained. Many of the strong growing sorts are frequently destroyed by being put into large pots in a rich soil. This is often the reason why *serratifolia*, *fulgens*, *corymbiflora*, and some of these sorts are shy in flowering. I once potted two plants of *serratifolia*, the one in rich turfy loam and dung, the other in a poor worn-out soil, mixed with a few pieces of broken bricks; the consequence was, that the former grew most luxuriantly, and showed no flowers at all till late in the fall, whereas the other made a very short growth, and flowered profusely the greater part of the season. The less robust varieties, do better when planted in good loam, with about a third part of well decomposed manure.

W. S

RASPBERRIES.

THE Raspberry is so generally and deservedly esteemed, so easily and consequently so commonly grown, that a few remarks relating to a very successful treatment of culture (even though following several able articles on the Raspberry which have appeared in the *Florist*), may not be altogether unacceptable to your readers. It is an object with most of us to get as much produce from a limited space of ground, and with as little trouble as possible; and when I say that I do not prune or stake, or take half so much trouble with my Raspberry plants as most people do, and get twice as much fruit as I ever did, by the old pruning and staking practice, I advance inducements not unlikely to influence a good many Raspberry growers.

As a rule, I say do not prune, or, perhaps, to be more explicit, I do not remove the canes which a vigorous plant produces during the summer, and from which (in the case of the common Raspberry) the crop is produced the next season. My plants produce from 10 to 15 shoots annually, as no derangement in the relation between root and shoot is allowed to exist from injudicious pruning, I get annually short, fruitful, well-matured canes, instead of strong, succulent, straggling shoots that require stakes to sustain them. All these 10 or 15 canes are suffered to remain, and each cane is fruitful almost to the ground.

It may be asked, will not this excessive fruitfulness impair the vigour of the stock? I can only say, that I have pursued this system of management for the last four years, with increasing success; and what especially induces me to recommend the plan is the former failure of the Raspberry crop on the same ground under the pruning system.

I am so well aware that varying soils and climates influence the habits of plants, and makes it necessary to modify and adapt the system of management to the peculiar circumstances of the place, and that a system that may be successfully pursued in one garden is not of necessity the best for another, that I do not advise an unconsidered adoption of the plan I find to answer so well; but I hope at any rate my remarks will suggest an inquiry as to the general propriety of the common practice. It is worth while to consider whether it is right and reasonable to induce, by high cultivation, the abundant development of canes during the summer, half of which are removed by the winter pruning. Has not this the effect of disturbing the balance of power between roots and branches, and of impairing the fruitfulness of the canes allowed to remain? Is not this habit of excessive pruning the cause of the gross, succulent shoots which are too often seen in Raspberry quarters? and does it not lead to the expense and trouble of staking and otherwise securing the canes?

The soil in which the Raspberry succeeds under the treatment I have indicated as so successful, is a modified clay, considerably enriched on the surface. The ground is lightly forked over in the spring, but care is taken not to injure the roots.

In saying that I do not prune, I must be understood to mean, according to the approved practice. I do not, except in particular cases, remove any canes. It is always necessary to take off the attenuated points of the canes, which are seldom well ripened.

Belvoir, April 25.

W. I.

ALPINE STRAWBERRIES.

NOTHING attracted my attention more, during a visit I paid to Paris, than the great quantities of these offered for sale in the markets. Passing through the Marche St. Honore, I noticed hundreds of baskets of them; and indeed at all the fruit shops, and at the windows of the principal *cafes* and *restaurants*, quantities of them were to be seen. The price in the market, where I occasionally inquired, was only a few pence, more or less, according to their size and freshness, the basket containing a quart or more; some of them were remarkably fine. Anxious to learn the best method of cultivating this Strawberry, so desirable from its continued productiveness, I made inquiry of several cultivators, in whose gardens I saw it bearing abundantly, and picked many superior specimens of the fruit. It is, I found, easily increased by runners, when once there is a stock to commence with, which may be obtained from seed.

I shall only now notice their cultivation by means of runners. September is considered the best month to plant out new beds. As the plants are not of so vigorous a habit as the large varieties, perhaps earlier planting might not be attended with unfavourable results. The ground being prepared, the best and strongest runners should be selected and planted out in rows, about six inches apart, the rows being about one foot from each other. A cool and half shady situation, or a

terraced bank facing the north, is a good place for them, or even in the shade of trees, though not immediately under them, would be better, perhaps, than fully exposed. In the garden of one cultivator, I found them bearing abundantly thus situated, under the partial shade of Pear trees, trained *en quenouille*, on the borders of the walks. In the gardens of the Luxembourg, I saw nearly a quarter of an acre planted out in rows, three feet apart, and a row of Dahlias between every other row, the alternate spaces answering for walks. The Dahlias afforded some shade, and the plants were loaded with fruit. Would it not be worth while to introduce this Strawberry into cultivation for the supply of our markets in autumn? At all events it might prove to be worthy the attention of all private growers who are fond of this wholesome fruit, coming in as it does when ordinary varieties are unobtainable, and thus keeping up a succession nearly the entire year round. A moderately rich soil will be most certain to produce the best crop; occasional waterings would also be requisite, using, at times, guano water.

To the zealous cultivator, the Alpine Strawberry, both white and red, offers the chance of great improvement: perhaps, by fertilisation with the large sorts, greater size may be obtained and its successive bearing retained: the experiment might at least be tried, even if success should not attend it. A small packet of seed would produce a large number of plants.

S. F.

FRUIT CULTURE.—No. XIII.

BY MR. POWELL, FROGMORE.

(Continued from page 20.)

SMALL FRUITS.

Currant.—This fruit is a native of Britain and the northern parts of Europe; it therefore is one of our hardiest fruit-bearing shrubs; indeed, a failure in the crop of this fruit is of rare occurrence. Its culture is extremely easy, and the many uses in cookery and confectionery to which it may be applied, also in the manufacture of wine, render it a fruit of considerable importance.

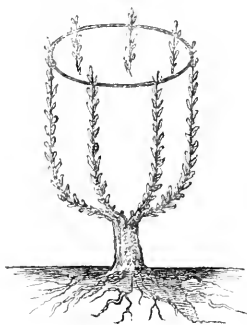
The Currant, like other small fruit, is vastly improved by cultivation. The original wild species from whence it sprung, produces only small and sour fruit. Our large garden varieties, we now cultivate, is the result of raising seedlings, for which we are partly indebted to the Dutch gardeners. The Dutch varieties are among the best, and some excellent kinds have also been raised in this country. As before stated, nothing is easier to cultivate, or more readily increased than this fruit; it will thrive and bear well in any common garden soil, which led to the common practice of planting Currants, as well as other small bush fruit, by the side of the principal walks in small kitchen gardens, a plan not to be advised in any way, as it greatly interferes with the kitchen cropping, and the trees often meet with rough usage when so situated. Therefore, it is the best plan to select a separate piece of

ground or quarter in the garden, if ever so small, and well trench and manure the soil before planting the young trees, for all Currants delight in a deep soil, well enriched with strong manure ; and except the trees are always in a vigorous and healthy condition, fine fruit in quantity cannot be expected.

Currants strike freely from cuttings, for which, see directions in previous chapters, under the head of propagation ; and in planting this fruit, if intended for bush culture in the open quarter, choose healthy young trees, with stems about a foot high. Plant in rows five feet apart, and the same distance in the rows ; and, while the trees are small, any light crops, such as Lettuce, Onions, &c., or Strawberries, between the rows for the first two or three years, may be grown. The trees should be planted in October, but not pruned till the following March, when the young shoots must be shortened to form the future head ; this is managed by selecting five or six well placed shoots, to furnish the main branches, keeping the centre open in the form of a goblet. The short-spur system is the best mode of pruning the red and white Currants, therefore, after the trees are formed, all the side shoots are annually cut back, leaving a bud or two at the base of each shoot ; the leading branches of course are to be left longer till the trees fill their allotted space. Currant trees usually last and produce good fruit from ten to twelve years, after which time it is better to make a new plantation in a different part of the garden, and destroy the old trees as soon as the young plantation comes into bearing.

The summer treatment consists in removing all superfluous shoots and suckers ; *stop* or pinch out the ends of the remaining shoots ; by so doing, it will tend to check the ravages of the green-fly ; and, by removing all useless shoots and suckers, sun and air are admitted through the trees ; this operation should be done towards the end of June, or before the fruit begins to colour, the object being to force the strength of the tree to the enlargement of the fruit, instead of wasting its energy in useless growth. Keep the soil about the plants well stirred, by frequent hoeings during summer, which will maintain moisture, and free the ground from weeds ; and, if any of the trees show signs of weakness, it is a good plan to *cover* the ground about the roots with rotten manure, or a soaking of manure water will answer the same end. Currants may be had for use from July to November with little trouble. To prolong their season in the open quarter, some of the trees should be covered with mats or canvas. After the fruit is perfectly ripe, and when shaded from the sun, it will keep fresh for use for a long time, and will be succeeded by that from a north wall, which will keep fit for use till the end of November, and, at that late period, it is a novelty at table. The trees for training should be planted from three to six feet apart, according to the height of the wall, and the shoots trained vertically, about nine inches apart ; the leading shoots should not be shortened till they reach the top of the wall, and, during the summer, pinch out the points of all side shoots ; and, at the winter pruning, cut them into one or two buds ; give a liberal supply of liquid manure during their growth, and do not disturb the roots by deep digging.

There are many fancy ways of growing Currants, and some form very pleasing objects in small gardens, such as high standards, pyramidal, and the goblet form; the latter, perhaps, is the best. A small hoop is placed inside the branches, which should be six or eight in number, and tied to the hoop at top, as represented in the accom-



panying woodcut. As the tree grows upwards, the hoop must be moved to the top, and tied as before; spur the side shoots as before recommended. There are many varieties of Currants, but the common sorts are scarcely worthy of cultivation, compared with the large kinds of later date, such as the Gloucester or Wilmot's Red, and the Cherry Currants, which are the largest; to these add the red and white Dutch, which are best for *bush* culture. The red Grape, Warner's Grape and Raby Castle, are nearly identical, and all are good kinds, especially for growing against north

walls for late use; the bunches are very long, and will hang on the trees a long time without shrivelling. The white Grape is also a good variety for walls.

The black Currant is a useful fruit, and distinct from other kinds, both in the fruit and habit of the tree. It delights in a cool moist situation and light soil, and requires different treatment to other kinds. The finest fruit is always produced upon the young shoots; therefore, it is best to maintain a vigorous growth in the trees, by liberal dressings of manure in a liquid state, applied in the summer time, when the trees are growing. In pruning (which may be done any time between November and March) remove annually all the *old wood* that can be replaced by young shoots, which should be left entire for fruiting, and moderately thin. It is best not to encourage a single stem in young trees, as is done with the red and white Currants, for they are very liable to die off; but allow the trees to form a *stool* with many suckers springing from the root; this plan offers every facility of replacing the old wood with vigorous young shoots. The Black Naples and Black Grape are the largest and best kinds to cultivate. The *Bronze* Currant possesses the same properties as the *Black*, but the fruit is a dull brownish colour, and only worth a place as a variety.

(To be continued.)

CULTURE OF ACHIMENES.

FEW plants are more beautiful than these, or better repay careful attention and management. In order to obtain fine bushy specimens, the following treatment has been found useful:—A box or cutting-pan is prepared by filling three parts of it with a compost of equal parts of loam and leaf-mould, on which the roots are laid, and covered two

inches in depth with the same compost. These startings are in January for May and June blooming, in March for July, August, and September blooming, and in the latter end of May *A. coccinea*, *A. rosea*, and *A. pedunculata* for December and January. Until the shoots have appeared above the surface they must be kept moderately dry. When the plants are about two inches high, raise them from the box or pan in which they were started, and put them in their flowering pans, leaving a space of two inches between each plant, and using the same compost as recommended above, enriched by the addition of one-fourth part of old Mushroom-bed dung, which will help to meet the great demand on the soil while the plants are in bloom, and by increasing the porosity of the soil, will prevent water from stagnating in the pans in the early stage of growth. Too much care cannot be exercised in watering when the plants are in their infancy; if the morning's sunshine catch a leaf in a moist state, either from vapour or careless use of the watering-pot, in a few minutes it will become brown and crumple up, and be materially injured, if not destroyed. I have frequently had to carry the plants from the front to some shady place in the back of the Pine pits, when the atmosphere of the pit was loaded with moisture. Later in the season there is little danger of their suffering. A gentle syringing in the afternoon, with copious waterings of weak liquid manure at least twice a week, when they show bloom, will add to their vigour, enrich the colour of the blooms, and prolong the flowering season. When the plants have taken to their new quarters, pinch the centres out of each leader; they will then break out with a fine array of moderately strong laterals. One pinching I find sufficient for *A. coccinea* and species of a similar habit; twice for *A. grandiflora*, *longiflora*, and those of like habit, whilst the straggling nature of *A. pedunculata* requires three or four pinchings to form a dwarf bushy plant. Let staking be proceeded with early; for if the shoots once get out of order, half their number will be disjointed in raising them to their proper position. The stakes should be left at least nine inches above the plant, to tack the stems to, in their upward flowering progress.

CULTOR.

CULTURE OF THE NEAPOLITAN VIOLET.

FROM the middle to the latter end of April I have always found a good time for commencing the culture of this. For the autumn supply I select the strong runners (the side crowns), and plant them out 15 inches apart each way in a piece of open ground free from shade. The ground should have been well forked over during winter, and before planting I fork into it two or three inches of well decayed leaf-mould. After planting, I carefully water till the plants are well established, and attend carefully in hoeing, not to bury the crown with mould. I sprinkle them well with water from the engine in the evenings during July and August, while the weather is dry. In summer I go over the plants and remove all superfluous runners (leaving the strong ones, however, which make as good crowns as the centre); thus each plant

has from five to six good crowns, when they are removed to the pits, and bloom as freely as the centre one.

I grow my plants in brick pits (not heated), from which I have the mould taken out and well turned several times during the summer. In this way I have used the same mould for years with very little addition. I refill the pits about the middle of September, allowing the soil time to settle. I then lift the plants very carefully with a fork, with good balls adhering to them, being careful of both roots and side crowns. I then plant them in the pits about six inches from the glass, allowing the plants to be just clear of each other, and taking care always to have the soil in the pit moderately dry when the plants are put into it. I then water with weak manure water to settle the mould, which I moisten well to the base of the roots, but not so as to sodden the soil. I keep the plants fully exposed until frosty nights occur, when I cover up with mats, &c., according to the severity of the weather. I give air on every favourable occasion. As the plants are subject to damp, they must be well looked after, and all decayed leaves removed as soon as they make their appearance.

I stir the soil frequently during winter with a small stick, as it dries it, and helps to prevent damp. During sharp weather, if the plants get frozen, I never uncover till they are thawed, but give air with the mats on, and I have never known them to take harm. The plan I pursue is that which my father followed before me for 21 years with perfect success; and during 14 years my practice has been equally satisfactory. My pit holds about 160 plants.

JAMES SHRIMPTON,
Gardener to A. J. Doxat, Esq., Putney Heath.

CULTURE OF THE ANEMONE.

THE cultivation of this beautiful spring flower approaches closely to that of the *Ranunculus*. If grown as an ordinary garden plant, seedlings will be found the most desirable, as they will ultimately prove of the least trouble, and most certain to produce an abundance of bloom—the only drawback being a deficiency of double flowers, which, in my opinion, is more than made up by the greater certainty, and immense supply of bloom. The named double varieties require more attention. The soil should be prepared with some degree of care, both as regards the quality and proper preparation before planting. A fresh rich loamy soil, inclined to a sandy quality, is the best suited for the purpose. The bed should be dug full eighteen inches deep, being frequently turned, that it may be thoroughly sweet and fit to receive the roots. This is a most important point, and should be particularly attended to; for if the soil is not in proper condition, a failure will surely be the consequence. It is far better to defer planting for a week, or even a fortnight, than risk planting in unsuitable soil. When the latter is in a proper state for use, it should be levelled, and about five or six inches being thrown off the top, add a layer of decomposed

cow-manure, of about four inches, and stir the latter in with the sweetened soil four or five inches in depth. This done, cover it with the soil thrown off, and leave it to settle for a day or two, when it may be raked. Draw off stones and the coarser part of the soil, and reduce the bed to an even surface, ready for planting; first marking it out in rows, about five or six inches distance each way. Proceed by planting the roots two inches deep, taking care that the eyes are placed upwards, which by a little careful examination will easily be discovered, for there are generally a few of the small fibres left on the underside of the roots, which will prove a guide to the inexperienced. When the roots are all planted, carefully draw the earth over them with the back of a rake, and be sure they are all safely covered. The time of planting for an early bloom, is about the middle of September. These will flower at the beginning of April, and will continue in flower for three weeks and upwards. If the season be favourable for a second course of bloom, a plantation should be made near the middle of October, or towards the latter end. These will succeed the former; and if some roots be kept in reserve, and be planted in January or February, taking the opportunity of fine weather in either month, as it may happen, they will succeed the second plantation, and thus afford a continuance of flowers for nearly two months.

EUGENIA.

CALENDAR FOR THE MONTH.

Auriculas.—These, before being placed out of doors to rest as it were after their blooms, should be well fumigated, and care taken to eradicate all dead foliage and aphides. Moderate rain will be beneficial to them, but by all means avoid wet in excess. Pit lights might be placed over the plants during heavy rains.

Azaleas and Camellias.—Look at our former directions, respecting the treatment of these plants. Camellias will now be out of bloom, and should be encouraged to make wood, by keeping the house rather closer and more humid, shading by day, and syringing the plants well overhead; this will induce them to grow freely. Where the plants are grown with others, they will be benefited by being placed in a Peach-house or vinery, with a moderate heat. When the blooms of Azaleas are fully expanded, they should be removed to a cool shady situation, to prolong their beauty. If exposed to the sun, many kinds soon fade.

Carnations and Picotees.—The time will have arrived for staking these; it is best to do this early, as the roots will not be so liable to be injured during the operation, besides the advantage of securing the flowering shoots as they grow, leaving no chance of their being destroyed by wind. Nothing can be finer or in more vigorous health than these plants at present; the cold has not in the least injured them. When we get a change, however, as we may, to great heat, they at once become of a yellow tinge, but, to prevent this, care must be taken to water them as often as they are dry, even if twice a

day. The old foliage will be dying off, which should be cut away with a light hand. Top dress towards the end of the month.

Cinerarias.—Little can now be done with these, other than keeping the plants that are in bloom in a cool shady situation. Select from the best named and seedling flowers for seed for the ensuing season, which sow as soon as ready if early plants are required. Place such as have gone out of flower in a north or cool situation for early cuttings. Prick off seedlings as soon as large enough to handle and place and keep them in a moist cool situation, until large enough to place in single pots. Prepare soil by putting equal parts turfy loam and well decomposed manure in a heap, which turn occasionally, until required.

Cold Frames.—*Calceolarias*, Scarlet *Geraniums*, *Lobelias*, *Pentstemons*, &c., may now be shifted to situations where they can have temporary protection if needed; this will make room for tenderer plants, requiring a gradual exposure to harden them for final planting, towards the middle of the month; indeed, the great success of an early start with bedding-out plants will mainly depend on their being well hardened off, previously to planting. Continue to prick into small pots the recently struck cuttings of *Verbenas*, *Salvias*, *Heliotropes*, and *Petunias*, to follow the early plants. Spring-raised annuals, as *Stocks*, *Asters*, *Zinnias*, &c., may now be fully exposed, and finally planted when the weather will permit. Where the frames are cleared of flower-garden plants, towards the end of the month, their place may be occupied by *Balsams*, *Japan Lilies*, *Cape Bulbs*, and *Gladioluses*, &c., for decorating the greenhouse in August and September.

Conservatory.—It will be very desirable at this season to lessen the number of extra plants in this house, introduced for furnishing a supply of bloom, that the permanent plants may not be overcrowded, now they are commencing their growth. Such plants as are growing in the open border must be well attended to with water, and the plants should be frequently syringed overhead; doing this early in the morning, for the house to get dry before visitors enter. The display of bloom should be kept up by *Pelargoniums*, *Azaleas* (greenhouse and forced), *Rhododendrons*, *Roses*, &c.; and don't forget to introduce sweet scented plants, as *Orange trees*, *Heliotropes*, and the good old *Franciscea uniflora*. Although shading must necessarily be practised, it should not be carried to excess, or to cause the young shoots of the permanent plants to *draw*. Let the show-house be kept as gay as your stock permits, and look to the successional plants to follow those now in bloom.

Dahlias.—Prepare the quarters or borders for these, or any ground that it is proposed to grow them on. The time is fast approaching for planting them out, yet, if the weather is cold or unfavourable, it will be best to delay this operation, particularly if the plants have pot room, and can be kept growing. To accomplish this, repot the plants as soon as they are received from the nursery, or, if home propagated, from the small pots to others a size or two larger, keeping growing but gently; by no means draw the plants, on the contrary, give all the air possible on favourable occasions. The fourth week in May is ample time for planting, particularly if the soil and plant have been prepared, as they should be. Seedlings may be put out a little sooner if they stand

thick, to prevent their drawing up weakly, but a quiet dull day should be chosen for this.

Flower Garden.—May is a busy month with the flower gardener, as the final arrangement and planting of the beds for the season's display will have to be carried out. Very much of the harmony and effect of a modern flower garden will depend on the tasteful distribution of colour, provided by suitable plants over its area, for it should be borne in mind that so much of every garden, comprised within the area of vision from the principal point of inspection—whether the garden be large or small, or in one or more compartments—should have the primary colours so placed that they may balance each other, and that the subordinate and complimentary colours should be added agreeably with their position on the chromatic scale; to carry this out correctly, requires a plan with the beds arranged and coloured, and then selecting the plants of the desirable colour to fill them; in this, the habit of the plants will have to be studied as to height, time of flowering, &c.; begin with planting the hardiest kinds first, and as they may yet suffer from cold cutting winds, small branches of evergreens, stuck between them, will form a good shelter, as they are easily removed when the warm weather arrives; above all, let the soil be well pulverised, by frequent turnings over before planting. As a rule, Scarlet Geraniums and their allies grow dwarfer and bloom more profusely in poor shallow soils; the variegated class like peat or rotten leaf soil, mixed with the compost. Calceolarias, with us, do best in sandy loam, without mixtures, as do Petunias; Verbenas are not particular, but like light rich soil.

Fruit (hardy).—We noticed in our last calendar that Apricots had then set their fruit, and Peaches were in full bloom; alas! how soon all the gardener's care and trouble have been frustrated by the severity of the frosts of the two last days in March. In many situations, the Apricot crop has been totally destroyed; in others partially; and all have suffered more or less. Peaches, we believe, are in a still worse plight, from the effects of frosts, and the attacks of green-fly which followed the frosts, in countless myriads. The check given to the trees by the above, and the cold weather of the present week, will go far to ruin the Peach crop of 1859. Plums, Pears, and Cherries, have also suffered. Disbudding must be proceeded with as the growth advances, and insects kept down; tobacco water, well diluted, is by far the safest remedy for the fly. Strawberry beds should be cleaned, and the space between the rows filled with stable litter; the rain will wash the surface clean by the time the fruit begins to swell, while the litter will act as mulching, and assist the fruit in swelling.

Kitchen Garden.—The principal work here will be a routine of thinning out, hoeing, &c., between the advancing crops. Sow on well prepared beds the main crops of Borecole, Cottager's Kale, Broccoli, Savoy, &c., for the main autumn and spring crops. Cauliflowers and Walcheren Broccoli may also be sown twice during the month. Prick out Cauliflowers and early Broccoli from the seed beds, as also Celery. The main crops of French Beans and Scarlet Runners should be sown. Peas and Broad Beans sow every fortnight for succession. Stick

advancing crops of Peas. We anticipate tall Peas will soon be given up, as dwarf ones fully equal in point of flavour and productiveness are now obtainable. Water should be given to newly-planted crops, and mulch if required. Plant out Artichokes in well-manured trenches; they like a deep and rich soil. Lettuce, Cos and Cabbage, sow a pinch every ten days, and on the best ground you have. Ridge Cucumbers may be sown towards the middle of the month, under handglasses.

Pelargoniums will now be fast coming into bloom. Continue tying and watering, according to instructions given last month. The blooms as they expand should be well shaded from the midday sun. Bees must likewise be excluded, as they cause the flowers to drop. The blooms on plants intended for exhibition should be tied a few days prior to being wanted, to give them a concise and neat appearance. The late flowering plants will now require much attention. A cool atmosphere, with thorough ventilation, is indispensable. Cleanliness likewise must be looked to, and continue tying as required.

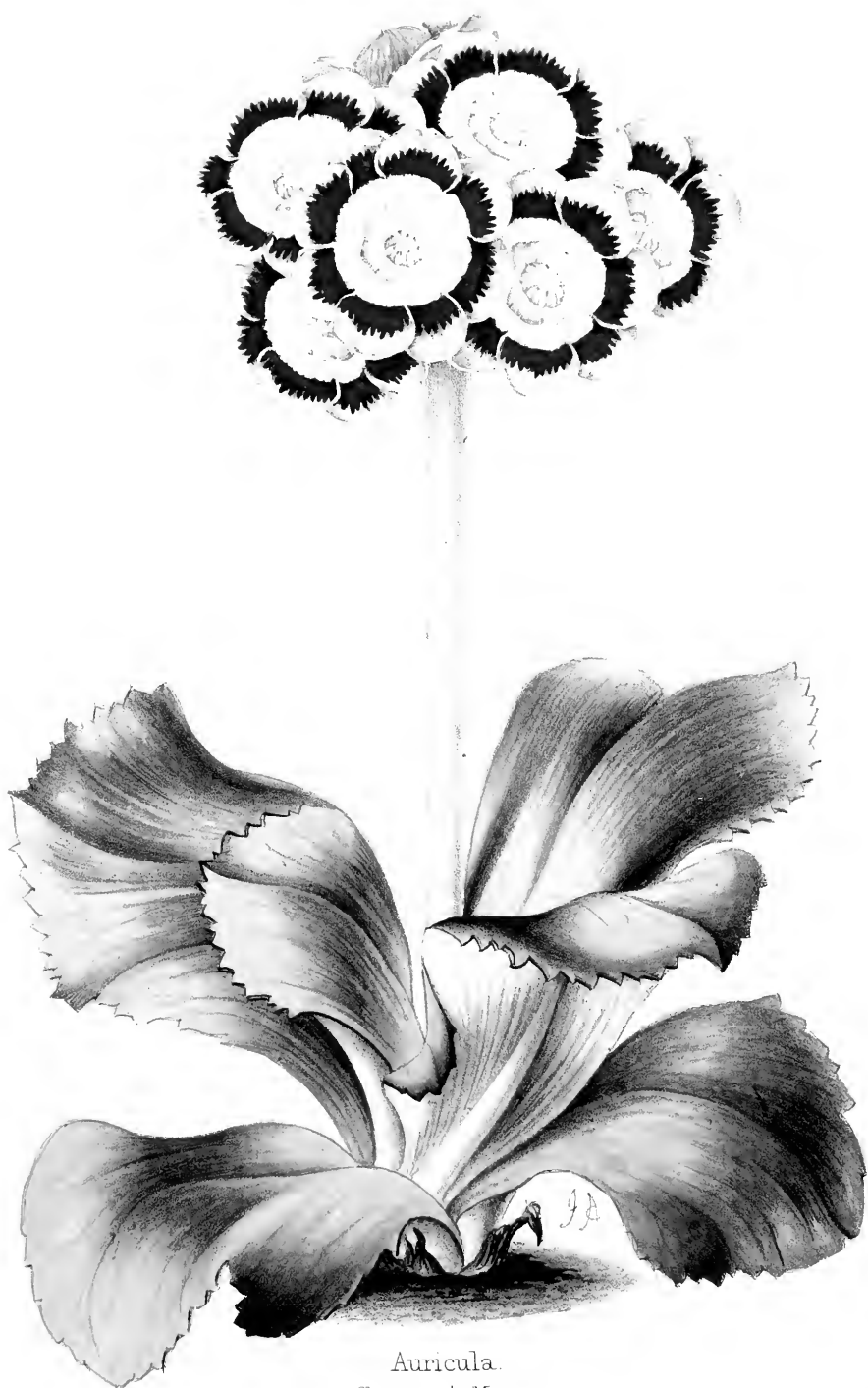
Peach-house.—After the crops are fairly stoned, if the fruit is wanted in quickly, a slight increase of temperature may be permitted, accompanied with more water to the roots. The trees also should be well washed once or twice daily, according to the weather. Tie in the shoots of the succession houses, and attend to former directions.

Pinks.—If large flowers are required, thin out the blooming shoots; also remove the small side buds. If dry weather continues, liquid manure may be used advantageously. Pinks promise to be fine this season.

Strawberries.—If there is the convenience of a spare pit or frame, very fine Strawberries may be obtained by taking the plants, after having set their fruit, and plunging them in pits, in old Melon soil; if over a slight bed of leaves, so much the better. The fruit will swell off to a large size, with little trouble, by this plan, and it will keep the houses clear of spider, which is sure to get introduced with the late Strawberries, when hot weather intervenes.

Tulips.—Give the beds a good watering, before they show much colour, if it continues dry. When in bloom, much water is liable to flush the white, thereby destroying their beauty. Protect as before described.

Vinery.—As the crop in the early house ripens, keep the air dry and cool, to improve the colour and flavour. The protecting materials on the outside border should now be removed, and the border slightly forked, finishing by laying a thin coat of very rotten manure over the surface. The latest Vines will now be swelling their buds, and may therefore be tied up to the trellis. Syringe them several times daily, to induce a free break, but fire heat (excepting with Muscats) had better not be applied until the bloom is about opening; mind, that at no season will Muscats set well without fire heat and a dry temperature of 70° or 75°, and St. Peter's and other late Grapes will set very much better if assisted with fire heat, to get the night temperature up to 70° during the time of blooming. After the berries are set, fire-heat, except for Muscats, need only be applied in cold wet weather.



Auricula.
Chapman's Maria.
Plate 152.

THE AURICULA.

WITH A REPRESENTATION OF CHAPMAN'S "MARIA."

(PLATE 152.)

HAVING been blest with a tolerable supply of arrows to one's quiver, I have never been obliged, save floriculturally, to adopt children of another person, and never having been successful enough to raise a seedling flower that was worth anything, I am not at all sensible of that ecstastic happiness which arises from such a process; but, I suppose, to be a successful raiser, must excite the same sort of pride as kindles the bosom of "paterfamilias" when some knowing canvasser, who, wishing to secure the vote of the said paterfamilias for the forthcoming election of the town of Bubble-cum-squeak, incontinently begins to praise the dear children; be that as it may be, I own I should like to be the raiser of such a flower as "Maria," not that it is by any means a perfect Auricula, but there is something so very refined in it, and the colour is of such an indescribable character that it must take a high position amongst the lovers of this exquisite flower, and Mr. Chapman may consider himself a fortunate man in being its papa; and this I say without having any ulterior designs upon Mr. C.'s vote and interest. I might say a great deal about it, might take a leaf out of the book—no, the catalogue of a firm (it shall be nameless, but) which certainly may be styled the George Robins of floriculture; for, as that well-known auctioneer once arrived (in the puffing of some place he had to sell) at the grand climax, that there were only two disadvantages, the incessant singing of the nightingales and the too powerful odour of the Rose-leaves, so really I should almost be afraid to grow the things which they advertise as novelties, for fear my friends should be so dazzled as to get an attack of ophthalmia, or be so tempted that I should have continually to be bringing them into the county court for theft. I will not copy the example, for I believe English people do not like this Yankee style of "tall talking," but simply say look at the drawing—though Mr. Andrews, clever artist though he be, can never do justice to the exquisite colouring of the flower. What may be the constitution of the flower, I know not, as I have but the one plant sent me this year by Mr. G. Lightbody; it seems healthy, though not inclined to produce stock.

As far as I can judge, the season has been a favourable one for the Auricula, and if such be the case generally, it is evident that a mild winter suits them, and that the directions I

ventured to give about covering up from frost are correct. I can safely say that I have never had finer blooms than this season, or never saw flowers come truer to character, and that, in such a winter as this has been, the autumn flowering does not hinder the spring bloom. I had but half a dozen in all that served me this trick, but from those very plants I had quite as fine bloom as from any; in fact, they grew through the winter so vigorously that the plant was sufficiently strengthened to enable it to throw out a fresh bloom. That this would not be the case in a severe winter, I think highly probable. I am confirmed in my opinion, too, that overpotting is injurious, and that if you give a fresh supply of food entirely to the plant once in the year, and nearly a half at the top-dressing time, that you may keep them in much smaller pots than they are generally grown in. I have not seen many collections this year in bloom, but I hope those of your readers who grow them (and I trust they will increase in number) will tell us how theirs have prospered. Some of the blooms in my little collection were perfect. There was one small plant of Waterhouse's Conqueror which for the first time threw up a truss of seven; and of these seven, one was $1\frac{5}{8}$ inch across, three $1\frac{1}{2}$ inch, and four $1\frac{3}{8}$ inch. These do not equal the marvellous tales of trusses 10 inches across, to which my friend Φ refers in this month's "Gossip," but they certainly formed a very fine truss. With regard to the statements there alluded to, there must be some mistake; but whatever be the exact size, I have no hesitation in saying that I never saw any grower that was, to use a homely expression, "fit to hold a candle" to Dr. Plant, and a few hints from him would indeed be "golden counsels" to the growers of Auriculas; though I have but little doubt that the fine climate of Ireland, so free from the extremes of heat and cold, has something to do with it. In the lists given of Auriculas there is generally a fault, I think, in that the several points of the flower are not separately noticed. I have endeavoured to remedy this in the list printed at page 182. I have taken as my standard that which Glenny recommends in his "Properties of Flowers." Viewed by this it will be seen that there is hardly a perfect Auricula grown, and that some of the most celebrated flowers have great defects; but this does not at all imply that they ought not to be grown, or that they are not show flowers. I beg to be understood as only describing the flowers from my bloom of them, but so far they are faithful. I have not in any instance trusted to memory, but have had the flowers before me when writing the description. They may be different to those given by others, but I believe it is only by obtaining the combined experiences of various growers that we shall arrive at a good

knowledge of the flower. If the weather has been favourable for Auriculas, what shall we say of Roses? Oh, Mr. Hole, I fear very much that Flora's Queen will not show off so well this year as last. I have never seen the damage done by the east wind anything equal to what it is this year.

Deal, May 24.

D.

CRYSTAL PALACE FIRST EXHIBITION FOR 1859.

THE first grand Horticultural Exhibition of the Crystal Palace Company took place on the 18th ult. The day was unfortunately gloomy and wet, and prevented that full attendance which we should have liked to have seen; for certainly the exhibition was all that could be desired. Pot Roses, collections of stove and greenhouse plants, and Orchids, were remarkable for freshness and vigour of growth and abundance of bloom—qualities not so predominant later in the season. Of the Roses in pots, it is not too much to say they have never been surpassed, if at all equalled. Many of the specimens were fully five feet high and four feet through, literally loaded with blooms to the edge of the pot, to which the health and freshness of the foliage contributed not a little, and made them the gem of the exhibition. In collections of stove and greenhouse plants were many remarkable instances of good cultivation, and an absence of anything like inferior specimens. Indeed, the collections, taken as a whole, were very evenly balanced, both as regards size of plants and good cultivation. Mr. Dods carried off the first prize in the large class, but was closely followed by others, all excellent in their way. We have seen Azaleas, taken as a whole, finer in bloom; some of the exhibitors yet adhere to the close formal style of training, of which Mr. Green's large double red afforded an example; and we observed a grand Gloire de Dijon Rose in, we think, Mr. Paul's twelve, spoiled by training it in an oval shape; the thinly bloomed Azaleas, however, were the exception, for Messrs. Carson, Green, Dods, and others had plants faultless in all respects.

Mr. Green's ten plants were very remarkable, being large, fresh, and covered with full-sized well-coloured blossoms. They consisted of *Sinensis*, very fine; *Iveryana*, Sir C. Napier, *Perryana*, and *Variegata*, little less beautiful, and *Coronata*, *Semi-duplex*, *Maculata*, *Symmetry*, and *Triumphans*. Mr. Carson had an equal first prize, for remarkable plants, but had not the quality of bloom. Those dissimilar to the first-named lot were *Alba superba*, *Carnea*, *Lateritia*, *Murrayana*, *Broughtoni*, and *Exquisita*. In six plants, Mr. Peed was first, with very nice plants, which contained nothing new. In the nursery-men's class, Mr. Ivery, Dorking, sent the best eight kinds, consisting of a fine *Iveryana*, *Magnifica*, good, *Harlequin*, *Glory of Sunning-hill*, *Delicata*, *Rubra pleno*, *Criterion*, very fine, and *Duke of Devonshire*. Mr. C. Turner, Slough, stood next with well-bloomed specimens of *Perryana*, *Variegata*, *Gledstanesi*, *Lateritia*, *Devonshire*, *Alba lutescens*, *Symmetry*, and *Purpurea arborea*. Mr. Clark, of Streatham, and Messrs. Fraser, of Lea Bridge, also obtained prizes in this class.

In ten new Azaleas, open class, there were five collections. Mr. Turner was first, with Sir J. Outram, fine rich colour, and well marked; Advance, purple; Sir H. Havelock, salmon; Miltoni, large rosy purple, dense spot; Model, Prince Jerome, Admiration, Criterion, Petuniæflora, and Patricki. Mr. Ivery stood next, with a fine plant of Admiration, Criterion, Crispiflora, Stanleyana, Model, Model of Perfection, Duchesse de Nassau, Gem, Juliana, and Beauty of Europe. Mr. Green also sent a nice lot, the best of which were Stanleyana, Gem, Juliana, and Eulalie. Among novelties we noticed Rosy Circle, a neat light purple; Frosti, a bold flower, of a new colour; Duchesse Adelaide de Nassau, rather coarse but finely spotted (both these have something of the old indica colour in them); Model, very good; Standard of Perfection, a bold well shaped flower, free, of a rosy purple, and dark spots; Advancer, very good; Sir James Outram, large flowered, well spotted, but rather coarse; Prince Jerome, well formed flower; Petuniæflora (rather old this to show as a new variety), distinct; Miltoni, Dilecta, Halford, Queen Victoria, Roi Leopold, and Empress Eugenie (poor), are useful kinds, older than those first noticed.

In the class of new plants, in or out of flower, the most striking novelty appeared to us to be Mr. Veitch's new Maple, *Acer japonicum polymorphum*, with deeply cut palmate leaves, of a dull red colour, and which in the autumn will doubtless prove highly attractive, said to be quite hardy. The same gentleman also exhibited a fine-looking evergreen shrub from Japan, named *Olea ilicifolia*, which will form a valuable addition to English gardens. The Messrs. Lee had *Barbarea præcox*, a variegated leaved herbaceous plant, allied to the Cresses, and which will make a useful plant for edging flower-beds. The same firm also exhibited *Centaurea candidissima*, with silvery foliage, well adapted for a like purpose; and the variegated form of the common Coltsfoot, which we have noticed before. We must also notice Mr. Veitch's batch of fine foliaged Begonias, and a seedling *Rhododendron Dalhousieanum*, with greenish yellow flowers, from Mr. Paul. Mr. Carson sent the bright orange *Aphelandra Porteana* and *Burlingtonia Farmeri*.

Heaths and tall Cacti were both good, but contained nothing new.

Pot Roses, as stated, were grand—blossoms fresh, and in to the day. The judges must have had some trouble; the collections of Messrs. Lane, Francis, and Paul were very evenly matched, and placed as named. A. Rowland, Esq., and Mr. Terry, gr. to C. W. Puller, Esq., Youngbury, Herts, were good in the amateur class. Among them the following names will be familiar to our readers, viz., Baronne Prevost, Blairi, Paul Perras, Paul Ricaut, Niphotos, Souvenir d'un Ami, one of the finest of all Tea Roses; Coupe d'Hebe, Souvenir de Malmaison, Jules Margottin, Gloire de Dijon, Madame Masson, Aubernon, Louis Bonaparte, Louis Odier, Chenedole, Lion des Combats, Louis Peyronney, Madame Willermoz, and Devoniensis. Coupe d'Hebe, General Jacqueminot, Triomphe de Paris, Vicomte de Cazes, and Aubernon formed one box of cut Roses.

Pelargoniums were as a whole scarcely so fine as we have seen them in former years. Mr. Turner's, however, formed an exception. His collection of 12 plants was all that could be desired. Conspicuous among

them were Symmetry, Empress Eugenie, Sanspareil, Review, Rose Celestial, Mazeppa, Governor-General, Mr. Marnock, Etna, Viola, and Candidate. Among Mr. Dobson's plants we remarked Fairest of the Fair, Sanspareil, Vestal, Wonderful, Governor-General, and Satirist. Messrs. Windsor, Fraser, and Gaines also showed in this class.

In the Amateur's class the best plants came from Mr. Wiggins, gardener to E. Beck, Esq., of Isleworth. These were well grown and finely flowered. Among the kinds were Bride, Fanny, Sanspareil, Fairest of the Fair, Vestal, Hesperis, Governor-General, Wonderful, and Fair Ellen. Mr. Weir, gardener to Mrs. Hodgson, Hampstead, had the next best.

Of Fancy varieties Mr. Turner's plants were very large and well bloomed, namely, Madame Rougiere, Madame Sontag, Acme, Rosabella, Madame Van de Weyer, and Attraction. Mr. Gaines, Mr. James, of Isleworth, Mr. Holland, Mr. Windsor, and Mr. Weir also sent Fancies.

There was one collection each of Tulips and Verbenas—the latter were very good—and some Pansies.

Of *Spergula pilifera*, the new substitute for lawn Grasses, Mr. Summers, gardener to A. Mongredien, Esq., sent a large panful, which seemed to excite considerable interest. It was deep green and in excellent condition. In its style of growth, it is a neat dwarf hardy perennial tufted alpine plant, forming close compact wiry Grass-like stems, from a quarter to half an inch in height, at first erect, afterwards decumbent, clothed with closely set green bristle-like leaves, which, by permanent growth and occasional rolling, forms an unbroken level velvet-like surface of the richest conceivable verdure, remaining uninjured in severe drought or intense cold, and assumes the same beautiful verdurous tint during the winter months as in summer.

Ferns were not so plentiful as might have been expected. Mr. Summers, gardener to A. Mongredien, Esq., Forest Hill, contributed a good collection of exotic kinds; and from Mr. Savey, gardener to E. A. de Grave, Esq., Fetcham, near Leatherhead, was a very good set of British kinds, all well grown plants.

Of Fuchsias we observed one middling collection, the plants in which stood from eight to ten feet in height at least, and were tolerably well flowered. They were all trained to single stems. All old kinds.

Cinerarias were exhibited in beautiful condition by Mr. Turner, who sent Slough Rival, Incomparable, Brilliant (Smith's), crimson, Brilliant (Lidgard's), white, tipped with blue; Eclipse, Perfection, and Regulator, the last a good blue. Some fine plants were also furnished by Mr. Shrimpton, gardener to A. J. Doxat, Esq., among which we noticed Optima, Loveliness, Mrs. Hoyle, Admiral Dundas, Lady Paxton, and Prince of Blues. Messrs. Dobson had Perfection, Mrs. Livingstone, and others, the names of most of which were the same as those just mentioned.

Auriculas *Ne Plus Ultra* and *Lancashire Hero*, both fine kinds, were shown by Mr. Turner.

Calceolarias, herbaceous kinds, came from Messrs. Dobson. Among them were Ruby Queen, Yellow Model, King of Yellows, Edith, and others, all finely spotted varieties, and well grown.

The show of fruit was limited, but contained some superb productions. We have particularly to mention the Black Hamburgh Grapes of Messrs. Hill and Frost, to whom the judges gave equal first prizes; a third dish, exhibited by Mr. Bell, from Devonshire, followed very closely. White Grapes were only ordinary. The most remarkable Pine was a Queen, $5\frac{1}{2}$ lbs., exhibited by Mr. Page, of Streatham. There were also a few good Black Jamaica Pines. But the most remarkable dish of fruit in the exhibition was Mr. Smith's Sir Charles Napier Strawberries; these were immensely large and of the finest colour, and, taken altogether, unequalled. Mr. Shuter had a good dish of Cherries, and Mr. Constantine very fine Figs and Peaches. There were a few nice-looking Melons for the season, by Messrs. Peed, Constantine, and others. In the miscellaneous class were some only ordinary pot Vines in fruit, a dish of extra fine fruit of *Musa sapientum*, grown in the Palace; Orange trees in fruit, and a remarkably prolific kind of Cucumber, exhibited by Mr. Munro. This appears a very useful market variety, and, to show its prolific properties, a Vine was exhibited with some ten or a dozen fine fruit growing on it—the shoot, probably, not more than two feet long.

We must now notice Mr. Spary's Patent Mildew Annihilator, a model of which was exhibited in the building. This is a portable apparatus for throwing off fumes of sulphur, &c., into houses infested with mildew or insects, and a most ingenious invention it appears. We hope soon to see its practical efficacy put to the test, when we shall have more to say on its merits. It is, however, only fair to add that Mr. Spary has had it at work for some years on his own premises, and speaks most decidedly on its safety and power in keeping down mildew.

“THE NATIONAL ROSE SHOW TO BE HELD IN THE
HANOVER SQUARE ROOMS, ON JUNE 23, 1859.”

How quickly time flies! How speedily have the dull wet winter and spring frosts passed away! And, now,—

“A happier smile illumines each brow,
With quicker spread each heart uncloses,
And, all is ecstasy—for, now
The valley holds its feast of Roses.”

MOORE.

The 23rd of June is the day, and an unlucky appointment for me, as the 22nd is our county show at Wimborne, to which I have pledged myself previously to take all the Roses I have, in return for the increase of prizes from two to eight, in compliance with my request. Moreover, I shall be prevented this great anticipated pleasure by a long engagement to receive a Rose amateur from the north, and also my friend Monsieur Ferdinand Gloede, who is coming from France to see me. This leads me to hope that another year the day will be fixed earlier. Indeed, I see no reason why it should not be an annual fixture, or at any rate why the day should not be announced at the fall, which would give Rose growers an opportunity of deciding whether

it was desirable or not to "lift" or "remove" their plants. I have bought 500 Roses, including the novelties of 1858 and 1859, and have caused to be bought over 200 more, with a view to distinguish Dorsetshire at the National; and, great is my disappointment at the clashing of show days. Nevertheless, I have done what I could to obtain lady patronesses, in accordance with the wishes of our reverend and indefatigable honorary secretary. Her Grace the Duchess of Beaufort, Lady Charlotte Sturt, Lady Rivers, and the Countesses of Granville and Digby, have kindly, at my request, allowed their names to be put down as lady patronesses. I have also received authority to-day to add the names of Viscountess Curzon, Lady Burghersh, and the Lady Augusta Sturt, to the distinguished list; and I hope that others will follow the example of these bright specimens. If, however, I am prevented going, or taking any Roses for the above reasons, I do not see why I should not do something which may be of benefit to exhibitors. I will, therefore, give a few hints that may be available, and I will throw aside that unworthy selfishness, too prevalent, which withholds information which ought to be made public, and contents itself with writing learned articles, which no one can understand or avail themselves of.

The first hint I will give is, mind and put a strap round your show box. The following anecdote will illustrate its necessity:—Last year, in travelling to the National, all went well with me till I got to Kingston, when about 4 o'clock, a thin-faced looking costermonger, with an upturned nose, like Mappin's pruning knife reversed, and his son, a "shrubby *Calceolaria*," shoved in their bundles, and got in. The thrusts unhinged the cover of my box, which goes on slides; and before we had gone a few hundred yards, Mr. Spooner, my surgeon, of Blandford, who got into a second-class carriage (never, except on show days, will I get into a second class on the narrow gauge; alas! my skin and bones) for company with me, exclaimed "Why, here are your Roses all over the place;" this I did not see, as the box was under my feet. I looked, and, alas! Madame Zoutman, Countess Lacepede, Blanchefleur, Brennus, Kean, and other glories, were scattered over the place. I said, "Sir, you have ruined me," to which he growled, "Not much harm after all," and said no more. I had not courage to test his accuracy, and, having slid on the cover, I waited till I got to London (half an hour), and then I found the immense damage done; for, out of 39, I could but just make up 24, with a small inferior *M. Fremion*. Moreover, the delicate colours, so indispensable in showing 24, were gone. Mind, therefore, the strap, and always take more Roses than you mean to show. The vibration of a second class will unloose hasps alone.

Before, however, you come to the strap, there is much to be done. You ought to have five trees of every show sort, to be sure of the day, and each tree ought to have five buds (the corollaries being taken off as soon as you see the main bud safe), and these buds should be of different sizes, so that you will have twenty-five chances, provided the trees are planted in different situations, and cut back wholly, or by instalments at different times. I have for instance, 30 *Géant des*

Batailles,* which, as above, will give 150 chances, as they are planted in every possible diversity of situation, and cut back at different periods.

If your ground is not aluminous, you must cover the surface with black manure and Grass, in a radius of at least 18 inches, unless the Rose is just planted, and then one foot will do for the first year; and, in sultry weather, you must water freely, but slowly, the tree and roots, so as to copy a thunderstorm, without its violence, once a week. Each tree should have two buckets, and, instead of pouring on all at one time, put on half a bucket, and return four times. In lawn holes, if the surface is hard, out of two buckets put on at once, three parts will go down the sides; tedious as it is, you must pour with a fine copper spout, and allow time for absorption. If the weather is as sultry as last year in June, I shall have to put on Roses and Strawberries at least 2000 stable buckets per week. Money, beef, and beer, dispel all difficulties here. My groom and a labourer, by the help of the above steam, would drown Deucalion in a week. When the buds are swollen and about to expand, liquid manure (not too strong) will give brilliancy to the flowers, and wood ashes will help to stiffen the petals. The buds should be shaded a few days before expansion, but uncovered at night. If you wish to "hold on" the bloom for a few days, pin French Ivy round the bud, to keep the air from getting too rapidly between the petals; but this must not be done too tight, as the Rose will stew or bleach. If the Rose has bloomed, you may still "hold it on" a day or so by sheeting overhead, and by tying down the bloom from the sun; but you must not put the canvass too near, but let the Rose have all the air you can; and be sure and set up its head, to be refreshed by the night dew. I may mention by the wayside that I cut my Roses daily as they bloom, and put them under high trees in tin water cups, where they gratify me, and also anyone who likes to walk in and see them. Here they last at least two days, and such Roses as P. Leon, Rebecca, and Montijo, a week.

It is probable that cut Roses kept in a stone jar in a dark cellar would last a week, especially if a little spirits of camphor were added to the water, and the leaves washed with gum water. I shall try these experiments this summer. I am persuaded that distance to the show and cutting over night ought not to be a hindrance under a workman's

* I never saw this Rose, unrivalled when properly grown, first rate but once in my life; and never good except when planted against a south wall or near its radiating heat. I saw it at the rectory of Gussage, St. Michael's, Dorset, some three years ago—quite first rate, large, brilliant, circular, and full. I have never seen a Rose more beautiful than it was; indeed, there were several. It was grown on a two-feet Briar, on the south frontage of the house, close to the wall, and trained up a four-feet stake. A poor woman, in one of my cottages here, grows it in a similar situation, and much better than I have been able to do; indeed, in seven years, I have never grown but two good blooms, and they were under the radiating heat of the wall, close in front of lovely Solfaterre. It is, however, everywhere a continuous bloomer; and from my great respect for it, as the first of all Rose parents, I have added to six on Dog Briers twenty-four Manetti ones, and planted against walls in every possible aspect, as well as in the open. La Reine and this Rose, as parents, deserve the praise of amateurs, and the first place in the rosarium.

hand. My own Roses last year at the National, though the refuse of the first bloom, were in as good condition as any in the show, and were travelled seven miles in a vehicle without springs, and 107 by a shaking second-class train, on 6-inch stalks, and showed not the slightest change as to form and colour, so far as I could see.

The way that they were carried was this:—Around each Rose a French Ivy-leaf was pinned to keep it together, and three or four Roses were tied close together, up to their blooms, and put into the tin cups, which, being filled with stalks, the water could not splash out so well. If the train stops long enough, replenish with water; for this you must have a long-spouted tin cup; a shilling will soon produce the water. What chance can a Rose have in a second-class train without some such appliances, when it is to compete against a Rose cut the same morning? None but tight Roses, such as Paul Ricaut, Bachmeteff, Dupuy, Leon, Rebecca, and Ravel, can ride it out. If the Rose is a little gone over (and many at the National last year were much gone over, even in prize lots), these hints may enable you to convey it. I think condition last year was not attended to enough, and that size and match bore down symmetry, elegance, and colour. Size and similarity of sizes, ought not, for one moment, to defeat Roses of different sizes (where the difference of size arises from their nature), if the smaller are good in other respects. I am sure that, unless more time is allowed the judges, or more judges appointed to adjudicate on different classes, it is impossible that they can judge each Rose *per se*. They can but have bare time to cast an eye over the whole mass, and award the prize to the largest, best matched, and most blazing Roses. This may obtain with the public, but it will never do so with amateurs, who have critical eyes and refined tastes. Let us hope, then, that more time will be allowed the judges, and more judges appointed, and that they will have nerve to undeceive the public by correcting this gross taste for everything large without reference to other qualifications. What Roses can be more beautiful or worthy of a show-box than Mesdames Place, Phelip, Lamoriciere, and the Emperor Napoleon? Admire Madame Domage and Baronne Prevost, but still appreciate these, and put them into the same box, although no match in size. Look at Madame Place, and you will break forth in admiration—

“She comes! make way, my people, stand reverently aside,
 She comes! the gentle traveller, in purity and pride;
 Shower welcomes on her,
 To show befitting honour,
 And give her love and homage from hearts and kindling eyes,
 And believe her and receive her with a thousand sympathies.”

With regard to the gems at the National, I shall be surprised if Duc de Cambridge, Patrizzi, and Gloire de Lyons, are not in front of the novelties. Perhaps Palmerston, Francis Arago, and Francis I., may “star it.” Virginale, pure white, H.P., is said to be good. Among Bourbon novelties, I will back (if they are shown) Dr. Berthet and Monsieur Jard.

Finally, the bud worm was never more busy, and it must be picked.

Aphides also will be "in" soon; use black and yellow sulphurs, or bitter aloes and water, or quassia. I have sooted all my trees (25th April) under a dripping rain, but I shall soon begin the syringe and sulphurs. Every aphid produces 100, and there are 10 generations in a year, amounting to 100 billions; therefore, catch the first aphid, and you may say—

"Oh! the rosy month of June I hail as summer's queen;
 The hills and valleys sing in joy, and all the woods are green;
 The streamlets flow in glad some song, the birds are all in tune;
 And Nature smiles in summer's pride, in the rosy month of June;
 There is music in the laughing sky, and balm upon the air;
 The earth is stamped with loveliness, and all around is fair;
 There is glory in the mountain top, and gladness in the plain;
 The Roses wake from their wintry bed, and blush and bloom again;
 Oh! the rosy month of June! my heart is bounding, wild, and free;
 As with a fond and longing look, I gaze once more on thee;
 With all thy thousand spangling gems—a bright and blessed boon—
 That comes to cheer and welcome in the rosy month of June."

And now, brother amateurs (there is a fraternity among all Rose growers; we know each other by intuition and sympathy), under the distinguished patronage of England's "greatest gems," may you enjoy and profit by the National Rose Show, "in the rosy month of June."

Rushton, April 26.

W. F. RADCLYFFE.

P.S., *May 14.*—Cardinal Patrizzi has given me two beautiful blooms. It is quite an "acquisition," or, to use a new term, it is "sumptuous;" it is a fine claret red, very bright, and well formed; it is in the line of Madame Masson's colour (a sad winterer, yet most beautiful), but brighter, and of a lighter colour. I have two others on good half-standard Briers. The above Rose is in a pot on Manetti. M. Masson has wintered well on a Brier, but badly on Manetti, and on her own roots; she must be kept off the ground, as she stains in her rind.

A USEFUL HINT.

ALLOW me to suggest an addition to your very useful periodical, which is now almost indispensable to every lover of a garden, whether he be an amateur or a professional gardener, and most of all to those who, like your reverend correspondent at Deal, are obliged to study economy in the pursuit of their tastes. It strikes me that a page might very usefully be devoted to short notices from correspondents, who have not time for a regular article, but yet might furnish occasionally very useful hints, or suggest inquiries that might be profitably pursued. This idea has occurred to me, in looking over the volume for 1858, and, with your permission, I will illustrate my view by a few short notes, which I made as I turned over the pages.

P. 122. The Verbena pots described by Mr. Deam would have been noted by me as a desideratum a few months since, but I have recently met with them at Halifax, where they may be had—of common clay—for 4s. a dozen, of more elegant form than the one you figured. The

same manufacturers also make a large vase for specimen Geraniums at 6s. per dozen. This latter might be much improved, if the maker would be content with a simple flowing outline, and not, as such men perversely do, attempt an elaborate series of curves, that result in a much less beautiful object.

P. 152. Perennials. I, for one, should be glad to see your correspondent's list, believing that this beautiful class of flowers has been too much neglected, to make way for their more showy rivals, the bedding plants. One reason for this is doubtless the brilliant display of colour produced, but I suspect that the real reason is, that to produce a general effect by herbaceous plants requires much more thought and care.

P. 197. The very useful caution about the non-ventilation of span-roofed houses is scarcely intelligible without a sketch.

THOMAS WILSON.

Crimbles House, Leeds, May 23.

[Many thanks for your useful hint, to which every encouragement shall be afforded.—ED.]

REVIEW.

The Gardener's Assistant. By Robert Thompson. Blackie & Son. Royal 8vo. In twelve parts.

This is a work which we can heartily recommend. Its object is to convey to its readers a knowledge of the fundamental principles of horticulture in a simple and practical manner, and to furnish details of the most approved modes of managing the kitchen and fruit gardens and forcing houses, as well as the more important of the plants cultivated in the flower garden and pleasure grounds, greenhouse and stove—in short, to be what its title implies, emphatically, a “Gardener's Assistant” in every sense of the word. For the proper carrying out of such a work, few men could be found better qualified than Mr. Thompson. His world-wide reputation as a skilful pomologist, his equally well-known scientific attainments, and his long connection with the Horticultural Society of London, in whose grounds at Chiswick all kinds of experimental gardening have been carefully conducted under his superintendence for years; these all eminently fit him for the task he has undertaken, and with some reason led us to expect in his “Gardener's Assistant” something more than ordinary routine information. In this, we have not been disappointed. The work before us has already reached its tenth part, and is replete with most valuable instruction, not only as regards improved modes of culture, but also as respects the origin, growth, and nutrition of plants, the nature and properties of soils and manures, formation of gardens, erection and heating of hothouses, levelling and management of groundwork, garden implements, together with select lists of fruit, vegetables, and flowers, and a full and extremely useful monthly calendar of operations. A work of so great utility, therefore, the price of which is not beyond the means of every cultivator of a garden, cannot, we should think, fail to meet with that encourage-

ment which it deserves. Some idea of the way in which the different subjects are treated may be gleaned from the following extract:—

“THE RASPBERRY (*Rubus Idæus*, L.—Icosandria Polygynia, L.; Rosaceæ, D. C.; Rosaceæ, Lind.) is a deciduous shrub, with perennial roots and a biennial stem, a native of Britain and most of the temperate parts of Europe. The fruit, being possessed of a fine aroma, is largely employed in tarts, jams, and similar preparations, as well as for the dessert. It is likewise used for making a delicious ice, Raspberry vinegar, Raspberry brandy, and Raspberry wine.

“*Varieties*.—These are numerous, the plant reproducing itself freely from seed with more or less variation. The following is a selection of the best:—

“1. RED ANTWERP—syn. Burley, Knevet’s Antwerp, Late-bearing Antwerp, Framboisier rouge à gros fruit.—Canes strong and long, yellowish green, slightly glaucous, occasionally tinged with purple, covered with dark brown bristles, especially towards the base. Fruit large, conical, dull red, sweet, and rich in flavour. It bears carriage well, and is therefore much cultivated by the market gardeners. A second crop is sometimes borne in autumn, but the fruit produced is both scanty and small. This was the first improvement on the wild Raspberry of the woods, and is still surpassed by none.

“2. BARNET—syn. Cornwall’s Prolific, Cornwall’s Red, Cornwall’s Seedling, Large Red, Lord Exmouth.—Canes long, yellowish green, frequently tinged with purple, much inclined to branch, covered with long slender prickles of a reddish colour. Fruit large, globular, inclined to conical, of a bright purplish red, and of excellent flavour. It ripens early, but does not bear carriage well; it is therefore only grown in private gardens. The plant is a very abundant bearer.

“3. RIVERS’ LARGE-FRUITED MONTHLY.—Canes moderately tall, very hispid, with reddish prickles. Fruit tolerably large, roundish or obtusely conical, of a deep purplish red, in the second crop of a brighter red. It ripens about the usual time, and again during autumn till frost.

“4. YELLOW ANTWERP—syn. White Antwerp, Double-bearing Yellow.—Canes with numerous small prickles. Fruit middle-sized, ovate, pale yellow, rich, and sweet. A good bearer, but not so strong-growing as the Red Antwerp.

“5. COX’S HONEY.—Canes strong, hispid. Fruit produced in succession, and in clusters along the stem. It resembles that of the Yellow Antwerp, being very sweet and rich.

“*Propagation*.—The Raspberry is propagated by seeds, and occasionally by cuttings, but the usual mode is by suckers or offsets. The seeds should be taken from perfectly ripe fruit, washed from the pulp, and then dried moderately, in order to prevent mouldiness. They may then be sown in rich sandy soil, or in pans, in sandy peat and well-decomposed leaf-mould. They will vegetate in the following spring, and in autumn they will be fit for transplanting into nursery rows, the first shoot being then shortened to a few eyes. In propagating by suckers or offsets, care should be taken to injure as little as possible the plants from which they are separated. The best time for removal, so

as to be least injurious to the old stools, is October, which is likewise the best time for making the plantation. Although this may be done any time when the weather is favourable during winter, or early in spring, yet it is not well to disturb the roots by taking off suckers late in spring, or after vegetation has commenced. Root-suckers are often thrown up at a considerable distance from the plant, and can be removed without materially affecting it; but frequently the suckers come out like offsets. When this is the case, they ought to be detached with a sharp suckering iron, and, at the same time, care should be taken not to injure the bud or buds which will be found on the part of the root just below the ground, at the base of the shoots made in the course of the current season; for these buds give rise to the shoots which become the canes for bearing in the following year. Propagation by cuttings is not a sure method, and is seldom resorted to, as the preceding mode affords so much facility; but any particular sort may be more rapidly increased by both cuttings and suckers than by suckers alone. The cuttings should be inserted in light, rich, rather moist soil, and in a somewhat shaded situation, at least one not exposed to the direct rays of the sun in the hottest parts of the day.

“Soil and Situation.—The Raspberry succeeds in any rich garden soil that is not too stiff, but prefers one that is rich and rather moist. It grows exceedingly well in sandy alluvial ground, also in peat and soils that are mixed with peat; but those which are heavy and compact, becoming hard in dry weather, do not suit it. In all cases, abundance of decomposed manure should be supplied when the ground is trenched before planting, and afterwards every autumn, as a top-dressing. The ground should be trenched at least two feet deep, and if to the depth of three feet, so much the better. Plenty of manure must be introduced, especially about one foot below the surface, for the roots near the latter can be fed by the annual manuring.

“Planting.—Raspberries are usually planted in rows, and their bearing shoots tied to stakes. In this way, the distance allowed between the rows may be five feet, and that between the plants in the row three feet. In very rich soil, six feet between the rows, and three or four feet between the plants in the row, would be preferable distances; or the rows may be eight feet apart, in which case, certain kitchen garden crops may be grown between; but, if so, care should be taken that the soil be kept well manured and always sufficiently moist. Raspberries are sometimes planted, for arched training, in rows four feet asunder, and the same distance between the plants in the row. When planted to be trained against an espalier, the plants may be two feet apart. Mr. Whiting states (*Gardeners' Chronicle*, 1849, p. 149) that, in poor soil, he finds planting one foot apart, in five feet rows, and leaving one, or occasionally two canes to each root, is preferable to planting at greater distances, and allowing three or four canes to each root.

“Mode of Bearing.—The Raspberry sends up shoots from which the leaves drop in autumn, and, from the buds on these shoots, or canes as they are called by some, branchlets push in spring, on which fruit is produced in the course of the summer, and sometimes till autumn. The branchlets diverge in all directions from the shoots from

which they spring, so that in the natural state they cannot be overcrowded. Whilst these are bearing the fruit, young shoots arise from the main stock or base of the stem, and suckers frequently spring from the roots, at a distance from the plant. These bear in the following season, forming a succession to those which are bearing, and which die back to the ground before winter.

“Pruning and Training.”—When the plants are intended to be trained to stakes in the usual way, the pruning and training are very simple. We shall commence with a new plantation. One, two, or three canes may be planted for the purpose of being tied to a single stake. If two are planted, they may be six inches apart, and in the direction of the row; if three, they may be at the same distance from each other, and placed so as to form an equilateral angle, in the centre of which the stake may be inserted. Stakes, however, will not be necessary in the first season; for the canes, when planted, should be cut down to within six inches or one foot from the ground, especially if they are weak; or, if strong, and fruit be desired the first season, they should be shortened more than the bearing shoots of an established plantation, so that, in either case, staking will not be necessary. The object of cutting back the year-old canes is to invigorate the young shoots. When these push, three, four, or five of the strongest of them should be encouraged; the others ought to be rubbed off, or destroyed by means of the suckering iron. Towards autumn, stakes must be prepared. Their lower end should be tapered to a sharp point, but without leaving angles on the taper, for when smooth, they can be introduced between the roots without breaking them. In October or November the plantation should be pruned, in order that the ground may be manured and forked over. Some think that the canes are injured by frost and rain when pruned before winter. Having much pith, injury from such causes may take place for some distance below the cut, or as far as the first joint. The plant is not susceptible of injury from frost, except so far as the pith may get too much soaked with wet, which will be only a little way, especially if the canes are cut slanting. In proceeding to prune, the two-year old canes, now dead, should, in the first place, be cleared away, and three or four of the strongest young canes ought to be selected for bearing in the following season. They should be shortened where they exhibit signs of weakness and begin to twist or bend. If there are more canes than the number considered proper for being tied up for bearing, they should also be cut away. After hoeing away the surface soil, and clearing all weeds from the base of the stem, the stakes should be driven in correctly in line, and their tops cut to a regular height. The canes should then be tied to the stakes with osier twigs, or with the golden Willow, than which nothing is better for the purpose, if it can be had, and if not, tar-twine may be substituted. This operation completes the first year's pruning and training. Objections have been made to the above mode of training to stakes, on account of the canes being brought too closely together, but it must be recollected that the canes do not require light; the buds of course do, but when pushing, they are not shaded, and the shoots from them extend outwards, so that the longer they grow the

more space there is for the foliage. There is, therefore, less danger of the fruit-bearing branchlets crowding each other than there is of the interference of the young shoots which spring from the root for succession. In the second season the tied-up canes will require no further attention. Lateral shoots will push from them; and these, as already remarked, bear the fruit. At the same time, shoots for succession spring up, and frequently in too great abundance. When such is the case, they must be thinned out more or less, as in the preceding season; only, as the plants are now established, from four to six shoots may be allowed to grow. In autumn three, or, if strong enough, four, from each stool should be pruned and tied as already directed. When Raspberries are intended to be trained to a rail, the latter may be constructed of stakes and strips of deal about one inch thick. The stakes should be driven in line at every five or six feet, and the strips of deal nailed along their tops, which may be three or four feet from the ground, according to the length of the canes; and other strips may run along at eighteen inches or two feet from the surface, or a wire may be stretched at that height. To these horizontals the canes should be trained, so as to leave room for a succession shoot between each. The weak points of the bearing canes ought to be cut off, and superfluous shoots removed at an early stage of their growth. Dr. Neill, in his 'Fruit and Kitchen Garden,' suggests a modification of training to a rail, which deserves to be noticed. He says, 'Perhaps the best support is obtained by fastening the points of the shoots to a slight horizontal rail or bar, about 4 feet high, and placed $1\frac{1}{2}$ foot on the south side of the rows. By this means the bearing shoots are deflected from the perpendicular to the sunny side of the row, and are not shaded by the annual wood.' Raspberries are sometimes trained by arching, and for this mode they are planted about four feet apart in the rows. A stake is driven in midway between the plants; half the canes belonging to one plant and half of those of the adjoining plant are bent towards each other, and their ends are tied together, so as to form an arch, which is secured to the stake in the centre. There are some varieties of Raspberry, such as Rivers' Large Fruited Monthly, which naturally produce fruit late in autumn; but other varieties may be induced to do so by cutting down the canes to within one foot of the ground. The shoots which push from these shortened canes grow vigorously, and usually produce fruit late in the season. Another mode is to shorten the canes rather more than usual; then, when the laterals push, and before they flower, they are cut back nearly to their bases, and from these fresh shoots are produced, which fruit late in the season. In order to obtain very large fruit, so far as this depends on pruning and training, few bearing shoots should be left to each plant, or, in particular cases, some plants, or a row or two, may be sacrificed by permitting no suckers to grow. Of course, no fruit can be obtained in the following season from plants so treated, the formation of shoots for future bearing being prevented, but in consequence of this the fruiting canes will be better nourished and the fruit larger.

“ Other Culture.—This consists in keeping the surface stirred and free of weeds. Manure should be applied in autumn, and ought to be

worked into the surface of the soil with a fork, without disturbing the soil to the depth of more than four or five inches, but to this depth it should be regularly turned over every year. If the operation is neglected one year, it cannot afterwards be performed without destroying the roots which have formed near the surface in the interval, and, consequently, ruining the plantation. Suckers not required for future bearing, or for a new plantation, should never be allowed to appear much above the surface; and in forking over the ground, they should be traced and eradicated as near to their origin as it is possible to do without injuring the root from which they spring.

“*Diseases and Insects.*—The Raspberry, when planted in a suitable soil and situation, and otherwise properly managed, is not liable to be attacked by diseases; and it rarely suffers any material injury from insects. The grub of the Raspberry-bud (*Tinea corticella*, L.) occasionally proves injurious to the crop by consuming the interior of the flower-buds and the footstalk of the fruit, causing them to wither up and die. About the end of May, the caterpillar enters into the pupa state, and in a fortnight re-appears as a moth, which deposits its eggs on the stems, but whether on the young or old wood is not known. The larvæ are produced early in August, and feed upon the leaves till winter, when they conceal themselves, and in spring again attack the young buds. The crop from the buds attacked being lost at any rate, all that can be done is to prevent the recurrence of the evil, by pinching the flower-buds in which the presence of the insect is indicated by their withered appearance. The Raspberry-leaf miner (*Fœnusa pumila*) occasionally injures the plants by consuming the cellular tissue contained between the upper and lower surfaces of the leaf, which, when thus attacked, presents a blotched appearance, by which the presence of the caterpillar is made apparent. Collecting and burning the leaves affected is the most effectual remedy. The grub of another insect (*Byturus tomentosus*) is very frequently found in the fruit, which it does not attack till nearly ripe. No remedy is known.”

Let us add that the work is illustrated by coloured plates and woodcuts, and when complete will form a very handsome volume.

HORTICULTURAL SOCIETY'S EXHIBITION, ST. JAMES'S HALL.

May 12 and 13.—Opinions will vary as to this show, but if one may judge from the small number of visitors, *public* opinion is decidedly against it; and notwithstanding the oracular approbation of certain very knowing parties, I think public opinion is right in this instance, though I am very far from subscribing to the motto, “*Vox populi, vox Dei.*” When one compared the rush and crush at the same Hall on the 1st of July last year, at the National Rose Show, the eagerness with which Lords and Ladies, peers and commoners, amateurs and gardeners, crowded round the tables then, with the very sparse scattering of very aristocratic looking people, and their *laissez faire* sort of way of looking at the collection, one could not help feeling that the Horti-

cultural Society had not hit upon the true way of making itself popular; and, after all, in these days, that is the point. To be select, and please a few of the noble and wealthy, may be quite desirable; but to bring "grist to the mill," you must interest the great body of the community. Nineteen out of twenty of the lovers of flowers in England could have had but just this interest in the above show—"It was very pretty," "Some very fine fruit," "What curious-looking plants!" But where were the note-books taken out, names taken down, nurserymen looked after, and orders given? Echo answers, Where? I for one did not see it; and just for this simple reason, that the plants exhibited were not within reach of the "nineteen." They were stove or large greenhouse plants, or forced fruits from Pineries and hothouses, all of which, of course, the "upper ten thousand" can boast of, but which the majority of the real lovers of flowers cannot touch.

The Society seems to have made two great mistakes in this show. First and foremost, the most preposterous regulation of making it a two days' exhibition—cruel in the extreme to the poor plants, and very hard upon the exhibitors. Imagine delicate stove plants, Caladiums, Cattleyas, Vandas, &c., exposed to the gas, dust, and confinement of St. James's Hall for two whole days! One would not subject much hardier plants to such treatment, and the sooner an alteration is made in this the better. Then, again, the prizes offered clearly exclude those things which are within the reach, as I have said, of the great majority. If Pelargoniums and such like plants had been encouraged, it would have increased the popularity of the show.

Taking these things into account, one is, however, bound to say that the arrangement reflected the greatest credit on Mr. Edmonds, gardener to the Duke of Devonshire, at Chiswick, to whom, I believe, it was committed; and the effect on entering the room was not so much that you were entering an exhibition, with its stiff and formal accompaniments, but a well and carefully arranged conservatory. At the far end, in front of the orchestra, were placed six magnificent plants of Roses, from Mr. Lane, of Great Berkhamstead, testifying to the skill and energy of that enterprising grower. It has seldom fallen to my lot to see such pot Roses before. They were, of course (for bushes six feet high must be so), old sorts, but they were the very perfection of growth. Triomphe de Paris, H.P., Paul Perras, H.B., Jules Margottin, H.P., Duchess of Sutherland, H.P.; Souvenir d'un Ami, T.; and Baronne Prevost, H.P. In front of these were some small plants of new variegated Geraniums, from Messrs. Henderson, sufficiently striking to be worth looking after. In the centre of the room the fruit was displayed, with some standard Chinese Azaleas in the middle of the long table, and underneath them some pot Roses, from Mr. Francis, of Hertford; the most *taking* (alas! there was none of that), well, then, the most tempting dish of said fruit being, I think, the Sir Charles Napier Strawberries of Mr. Smith, of Twickenham; the berries large, fine-shaped, and of a most brilliant scarlet. Its flavour—alas! my friends, *you* know as much of that as I do, for "*Noli me tangere*" was plainly written upon all. New and striking foliated plants were in great abundance. The very beautiful *Clianthus Dampieri* (figured some time

since in the *Florist*) was there, in Mr. Veitch's very fine group. *Farfugium grande*, too, was well grown, and some of the *Begonias*, with their very peculiar markings, attracted a good deal of attention. *Myosotis nobilis*, though very pretty, would not put out of favour (in my eyes, at any rate) its little native congener, whose bright blue flowers cluster in our ditches—the “Forget-me-not” so dear to spooney young gentlemen and young ladies fresh from their boarding schools. Amongst plants likely to be of general interest, if the character given of them be correct, viz., that they are hardy, are *Aucuba Himalaica* and *Olea ilicifolia* the former from the Wellington Road Nursery, the latter from Mr. Veitch.

Deal, May 23.

D.

FARNHAM CASTLE, NEAR CAVAN, IRELAND.

THIS, the seat of Lord Farnham, is situated two miles north-west of Cavan. On each side of the carriage drive, leading to the house, stand some fine “ancestral trees.” The mansion itself is entered by a portico supported by Corinthian pillars, which are of themselves striking features of the erection. In front is a fine green lawn, many acres in extent, interspersed with trees and shrubs, both single and in groups. The pleasure-grounds lie south-west of the mansion. In front of the house is a range of plant houses 80 yards in length, divided into four divisions by glass partitions. Next the house is a greenhouse, gay with *Cinerarias* and *Geraniums*, the latter show and fancy kinds, grown in 9-inch pots, many of them measuring from 2 to 2½ feet through, and literally covered with flowers. *Azaleas* in bloom consisted of *Beauty of Europe*, *Criterion*, *Duke of Devonshire*, *Gledstanesi formosa*, *Glory of Sunninghill*, *Holfordiana*, *Iveryana*, *Semi-duplex maculata*, and *Perryana*. There were also *Ericas* and *Epacris*, *Rhododendrons*, *Carnations*, *Pinks*, &c., intermixed with variegated *Geraniums*, such as *Emperor* (Lee's), *Lady Plymouth*, &c. *Centaurea argentea*, is also used for the same purpose. The two centre houses in this range contained a fine collection of stove plants, *Orchids*, *Palms*, *Ferns*, and *Lycopods*. The *Palms* were planted out in a bed in the centre, and looked remarkably healthy. In front were some large *Crinums*, *Strelitzia Reginae*, and other large growing stove plants and *Ferns*. Another compartment was particularly gay with *Gloxinias*, *Tydas*, *Meyenia erecta*, *Euphorbias*, *Æschynanthus*, *Dendrobiums*, &c. Among the flowering plants were arranged variegated and fine-foliated plants, with good effect, such as *Begonia Rex*, *Aphelandra Leopoldi*, *Caladium bicolor splendens*, *Sonerila Margaritacea*, *Cissus discolor*, *Dioscorea discolor*, *Goodyeras*, *Crotons*, *Dracenas*, and *Marantas*. This house also contained a goodly collection of *Ferns*; here were some fine *Gymnogrammas* and others. Associated with these was a beautiful new *Torenia* named *pulcherrima*, an improvement on *asiatica*. The last house in this range was filled with orange trees, both planted out and in tubs. The conservatory is about 50 yards long, with the centre divided into two compartments (beds); one of the divisions was filled with *Acacias*, &c., and the other chiefly with *Tea Roses*. The following

were trained up pillars, and festooned from the roof: Gloire de Dijon, yellow shaded with salmon, very fine; the yellow *Devoniensis*, and *Souvenir de Malmaison*, one of the best of its class. These were planted out in a prepared bed of rich soil. On the back wall was a large *Luculia gratissima*.

On my way to the forcing department I passed through the flower garden, the beds in which are planted on the ribbon system. *Rhododendrons*, Ghent *Azaleas* and *Kalmias* I found well set with flower-buds. To the west of the American garden is a fountain surrounded with rockwork, planted with rock plants, Ferns, &c.

In the kitchen garden the glass erections consist of four Vineries, two Peach-houses, Pine stove, succession Pine pits, propagating house, and Melon and Cucumber pits. In the earliest Vinery was fruit nearly ripe—Hamburgs and Sweetwaters; Muscats also promised well. The next Vinery, a *Hamburg* house, was filled with *Camellias*, the pots of which were plunged in a dung bed, which runs up the centre of the house. The plants were making fine young wood, the Vines acting as shading for the tender foliage. The following twelve were really good varieties, viz., *Adrien Lebrun*, *Archduchess Augusta Maria*, *Duchess of Northumberland (Lee's)*, *Florence Nightingale*, *Jacksoni*, *Jenny Lind*, *Mrs. Cope*, *Optima*, *Storeyi*, *Donkelaari*, *Chandleri*, *Fimbriata*, &c. The latest Vinery is planted with *Black Hamburgs*, *West's St. Peter's*, and *Barbarossa*. Early Peaches were in a forward state, and a splendid crop of both early and late ones was coming on in-doors. In the Pine stove the fruiting plants were showing well. In front of the Pines, pot Vines were growing; succession Pines looked remarkably healthy. Melons and Cucumbers are grown here in dung pits; for late use they are trained on trellis-work. By this plan fruit is obtained much later than otherwise could be in dung pits.

Parallel with the Vineries is a series of flower beds, laid out on gravel, edged with Box. In summer, when in full bloom, these cannot fail to be very effective. As a great quantity of bedding plants is required here every season, all the old plants of *Geraniums* are lifted in autumn, and kept during winter in cold "sod" pits. They are found to bloom more freely and not to grow so strongly as young plants. *Calceolarias* and *Verbenas*, previously to being planted out, are pricked out in beds made for the purpose, and protected during cold nights; by this plan the plants do not suffer from the shift they get to their summer quarters. Few plants answer the purpose, and they come earlier into bloom.

The wall fruit has suffered very much from the late spring frost, also many of the more tender shrubs in the pleasure grounds. The following figures will show the amount of frost registered here during the week ending April 23:—April 18th, 7°; 19th, 5°; 20th, 7°; 21st, 12°; 22nd, 12°; 23rd, 9°. The above would indicate the necessity of erecting glass walls, or walls covered with glass, which are indispensable to every good garden establishment.

A short distance from the mansion is a Rose garden, which has undergone considerable improvement during last winter, and a great quantity of new Roses has been added to the superb collection which

this garden already contained. This, as well as all other things, reflected credit on Mr. Honeywill, who is gardener here. In fact, everything on the domain denoted wealth, taste, and intelligence.

D.

NATIONAL TULIP SOCIETY.

THE eleventh annual exhibition of this Society took place at Slough, on the 20th ult. Late as it was for many collections in the south, yet there was a good show, some of the specimens being of remarkable beauty, particularly those shown by R. H. Betteridge, Esq., and R. Headley, &c. The latter gentleman exhibited some very fine new flowers of his own raising—Adonis, John Linton, and Sarah Headley were particularly striking. We, however, merely give the awards on this occasion; our critical remarks will be given in next number.

In the first class, 12 blooms, four of each colour, there were 14 collections staged. The first prize was awarded to R. H. Betteridge, Esq., Milton Hill, Abingdon, for finely grown flowers, and exceedingly well marked. They consisted of Marcellus, Thalia, Lord Denman, Madame Catalani, Alcon, Countess of Wilton, Spencer's First-rate, George Hayward, Royal Sovereign, Heroine, Triomphe Royale, and Polyphemus; 2nd, Mr. W. Lawrence, Hampton, with Lady Wilder, Jupiter, Brown's Ulysses, Maid of Orleans, Blœmart, Madonna, Aglaia, Duke of Northumberland, Queen of Hampton, Charles Brown, Madame Vestris, and George Hayward; 3rd, Mr. Thomas Westbrook, Abingdon, with Isabella, Royal Sovereign, General Barnoveldt, Bion, Everard, Blœmart, Polyphemus, Madame Catalani, Maid of Orleans, Rose Tryall, Vivid, and Thalia; 4th, Mr. Joseph Godfrey, Chellaston, near Derby, with Duke of Devonshire, Mrs. Pickerill, Rose Aglaia, Royal Sovereign, Vivid, Triomphe Royale, Merit, Miss Grace, Queen Charlotte, Lady Franklin, Heroine, and Abbott's Gem; 5th, Mr. J. Hepworth, Hendrie's Gardens, Lea Bridge, Essex, with Heroine, Seedling No. 111, Platoff, Princess Royal, President, Aglaia, Seedling No. 40, Vivid, Aglaia flamed, Ulysses, Seedling 210, and Seedling 80; 6th, C. Williams, Esq., Clarence Cottage, West Green Road, Tottenham, with Willison's King, Walker's Duchess of Sutherland, Sander's Louis Philippe, Don Pedro, Violet Quarto, Headley's Helena, Salvator Rosa, Mayor of Manchester, Anastasia, Dr. Horner, Heroine, and La Tendresse. Mr. Headley exhibited a superb stand, but was disqualified, one of the flowers having seven petals.

Class B. Six Tulips, one feathered and one flamed in each class:—1st prize, R. H. Betteridge, Esq., with Triomphe Royale, Incomparable, Heroine, Willison's King flamed, Seedling No. 74, and Willison's King feathered; 2nd, Mr. Joseph Godfrey, with Lady Franklin, Royal Sovereign, Merit, Heroine, Triomphe Royale, and Mrs. Pickerill; 3rd, Mr. Thomas Allestree, Draycott, near Derby, with Aglaia, Lorenzo, Masterpiece, Merit, Kate Connor, and Chellaston Beauty; 4th, Mr. J. Hepworth, with Heroine, Blœmart, Platoff, President, Seedling 210, and Aglaia; 5th, Joseph Hunt, Esq., High Wycombe, with George

Hayward, Lord Denman, Lady Denman, Triomphe Royale, Heroine, and Delaforce's King; 6th, H. Steward, Esq., York, with Charles X., Brown's Salvator Rosa, Violet Quarto, Sarah Headley, Pilot, and Triomphe Royale.

Class C. Three Feathered Tulips, one in each class:—1st prize, Mr. Joseph Godfrey, with Royal Sovereign, Victoria Regina, and Heroine; 2nd, Mr. J. Hepworth, with Seedling 210, Heroine, and Surpass Catafalque; 3rd, Rev. S. Cresswell, Radford Vicarage, Nottingham, with Gem, Cotterill's Elizabeth, and Heroine; 4th, R. Headley, Esq., Stapleford, Cambridge, with La Belle Mannette, Vivid, and Duchess of Cambridge; 5th, ditto, with Aglaia, Pactolus, and Surpass Fanny.

Class D. Three Flamed Tulips, one in each class, 23 collections:—1st prize, Charles Williams, Esq., with Walker's Duchess of Sutherland, Groom's Orpheus, and Triomphe Royale; 2nd, R. H. Betteridge, Esq., with Incomparable, Triomphe Royale, and Glory of Abingdon; 3rd, Mr. Joseph Godfrey, with La Beine Amia, Colonel Windham, and Triomphe Royale; 4th, R. H. Betteridge, Esq., with Mountain Sylph, Polyphemus, and Triomphe du Monde; 5th, Charles Williams, Esq., with Sir J. Paxton, Lady Exeter, and Crook's Alice.

Class E. Six Breeder Tulips, two in each class, dissimilar:—1st prize, R. H. Betteridge, Esq., with Battersby's Sobraon, Seedling, Groom's Polonius, Seedling No. 38, Groom's Henry Fusili, and Slater's Earl of Warwick; 2nd, H. Steward, Esq., with Pilot, Princess Royal, Anastasia, Sable Monarque, Juliet, and King; 3rd, Mr. Thomas Allestree, with Sobraon, Adonis, Juliet, Seedling, Earl of Warwick, and Queen of England; 4th, Mr. J. Hepworth.

Class F. Three Breeders, one in each class:—1st prize, R. H. Betteridge, Esq., with Sir Joseph Paxton, Seedling No. 38, and Sarah Ann; 2nd, H. Steward, Esq., with Anastasia, Willison's Sir J. Paxton, and Princess Royal; 3rd, Joseph Hunt, Esq., with Willison's Queen, Sarah Ann, and Pilot; 4th, Mr. J. Hepworth.

The premier prize was awarded to R. Headley, Esq., for Headley's Adonis, a charming feathered Byblømen.

DUCHESS OF NORFOLK ROSE.

THIS Rose is a remarkable instance of the gradual improvement of some Hybrid Perpetual Roses. It was raised from seed by M. Margottin some eight or ten or twelve years since, and presented, with one or two other seedling Roses to his customers, Mr. Rivers and Messrs. Wood. The former, knowing very well the usual value of the seedlings given to their clients by the French florists, neglected his plants, and ultimately lost them. Messrs. Wood cultivated those in their possession carefully, and were rewarded by one of them proving worthy of being named the Duchess of Norfolk, which, although scarcely more than a mediocre Rose when first sent out, has improved annually, and was last season among the most beautiful of Roses.

R.

SELECT LIST OF AURICULAS.

NAME.	Eye.	Paste.	Ground.	Edge.	Size.	Habit.	Foliage.	Shape of Flower.	GENERAL CHARACTER.
1. Beeston's Apollo	pale lemon	circular	black	dark green	medium	good	small	round	A very good flower, the ground inclined to run into the margin; plant itself apt to break into offsets.
2. Oliver's Lovely Ann . . .	pale yellow	circular	purple	varies from green to grey	large	exclnt.	large	round	An old, but, to my mind, useful and striking flower.
3. Taylor's Glory	pale lemon	circular	reddish purp.	clear white	small	good	mealy	round	An old flower, but not yet beaten; it is generally undersized, but is a fine flower.
4. Fletcher's Ne Plus Ultra .	pale yellow	* circular	black	grey	very large	good	stout	scalloped	I cannot understand why "lots" calls this a bad constituted plant, it is a striking flower, but rather coarse.
5. Lightbody's Meteor Flag . .	yellow	a little scalloped	bright blue	safr	large	good	mealy	round	A good self, but at a distance the paste seems as if cut into segments.
6. Maclean's Unique	bright orange.	rather angular	bluish black	decided grey	large	fair	medium	round	A bold and fine flower, a little coarse, and the eye too wide, but altogether A 1.
7. Sir J. Moore (Lightbody) . .	yellow	rather scalloped	reddish purp.	green	large	good	stout	crumply	A goggle eyed flower; crumples, and apt to crack in the paste; not a good flower.
8. Sophia (Chapman)	pale yellow	circular	rich purple	grey	medium	fair	rather serrated	starry	A striking stage flower; the ground colour lovely, but runs into the edge too much.
9. Metropolitan	pale lemon	scalloped	rich plum	...	medium	good	small	round	A very pretty flower.
10. Duke of Cambridge (Dickson) .	bright yel.	nearly round	bril. purple	grey	small	good	good	round	A striking flower, but too much colour, and the pip too angular.
11. Conqueror (Popplewell) . .	bright yel.	circular	reddish purp.	undecided white or grey	large	good	mealy and serrated	round	An old flower: its chief fault is that the edge is neither white nor grey, and sometimes, indeed, has a tinge of green in it.
12. Ringleader (Kenyon) . . .	yellow	circular	black	grey	medium	good	small	round	An old but beautifully shaped variety, but does not often open flat; the parent, evidently, of Bolivar.
13. Conqueror of Europe (Waterhouse)	orange	circular	black purp.	grey	large	good	strong	round	An old but beautiful variety, best on a maiden plant, i. e., one that carries seven pips for the first time.
13b. Maria (Chapman's) . . .	yellow	circular	lovely violet purple	grey	medium	good	serrated	round	A most lovely stage flower.

NAME.	Eye.	Paste.	Ground.	Edge.	Size.	Habit.	Foliage.	Shape of Flower.	GENERAL CHARACTER.
14. Colonel Taylor (Leigh) . .	pale lemon	circular	black	beautiful gm	large	medium	not very strong	round	This, which came out at three guineas, is doubtless very fine, but the ground is apt to show under the paste a little, and hardly enough ground.
15. Duke of Wellington (Dickson)	lemon	nearly circular	bril. purple	undecided	medium	good	strong	starry	A striking stage flower; too much ground colour, edge very small, and sometimes green and sometimes grey.
16. True Briton (Hepworth) . .	orange	circular	dark purple	white	large	good	strong	round	A fine white edge, but, owing to its large size, seldom opens flat.
17. Imperator (Litton). . .	orange	round	black	light green	small	good	not very large	starry	A flower with many faults, and too long legged, but still very pretty.
18. Crucifix (Clegg) . . .	dirty white	scalloped	black	white	medium	good	mealy	crumply	Might be a good flower, but all spoiled by the eye.
19. Incomparable (Taylor) . .	orange	round	maroon	white	medium	medium	slightly mealed	angular	Has some faults, which make it an inferior flower to Glory, by the same reason.
20. Bolivar (Smith) . . .	yellow	circular	reddish purp.	greenish grey	medium	medium	not strong	round	A very beautiful flower, but like its parent apt to cup.
21. Countess of Dunmore (Lightbody) . . .	orange	scalloped	dull red	white	large	good	mealy	crumply rather	A good flower, with very decided white edge, but a little out of shape.
22. Alma (Lightbody) . . .	orange	round	black	grey	large	good	strong	round	A very nice flower, a little apt not to be flat, but I think altogether excellent.
23. Champion (Page) . . .	yellow	circular	purple	beautiful gm	large	weak	small	round	This is, all in all, the most perfect Amicula, in my opinion; difficult to keep well, but not so much so as Freedom, &c.
24. Apollo (Hudson) . . .	lemon	round	bright purp.	light green	small	medium	small	good	A pretty flower, but with me rather small.
25. Mrs. Sturrock (Martin) . .	yellow	very circular	crimson self	... self	small	strong	mealy	good	An unusual colour.
26. Blackbird (Spalding) . . .	yellow	angular	dark maroon	self	large	good	large	good	In spite of my friend "O" I prefer Hannibal. The thum is above the eye, and this is a defect.
27. Richard Headley (Lightbody).	orange	angular	black	grey	medium	good	pointed	excellent	A very neat flower, with me not very large, foliage has a line of white round it, and is very beautiful.
28. Complete (Sykes) . . .	yellow	circular	black	grey	medium	good	small	good	Rather too much paste, but a good flower.
29. Freedom (Booth) . . .	lemon	circular	intense black	lively green	large	delicate	small	excellent	A very beautiful flower, but with most growers very difficult.
30. Lancashire Hero (Cheetham). .	orange	circular	black	green or grey	large	good	small	excellent	A very fine flower, few can beat it.
31. Colonel (Franklin) . . .	orange	circular	purple	green	large	good	large	crumply	A striking stage flower, but too large Sir J. Moore to be shown.

Deal.

D.

VIOLETS.

WITH me, Violets are held in great esteem. I was therefore quite delighted to see Mr. Shrimpton's excellent paper on the Neapolitan sort in your last number. In "Weeds and Wild Flowers" Lady Wilkinson has the following pleasant gossip about this my favourite flower, which may not be uninteresting to your readers:—

"'Violets,' says Gerarde, 'haue a great prerogative aboue others, not only because the mind conceiueth a certain pleasure and recreation by smelling and handling those more odoriferous floures, but also for that verie manie of these Violets receiue ornainent and comely grace, for there be made of them garlands for the head, nosegaies, and posies, which are delightful to look upon, and to smel to; speaking nothing of their appropriat virtues; yea gardens themselves receiue by these the greatest ornament of all, chieftest beauty, and most excellent grace, and the recreation of the mind which is taken hereby cannot be but very good and honest.'

"Vitruvius tells us that the flowers were not only used to adulterate or counterfeit the celebrated blue of Athens, but were also employed to 'moderate anger,' to cure ague and inflammation of the lungs, to allay thirst, procure sleep, and 'comfort and strengthen the heart, as well as for cooling plasters;' besides being worn as a charm against the 'falling sickness,' and headaches; and Pliny gives a long catalogue of their virtues; affirming that they are cooling, good for inflammation, weak eyes, quinsy, swellings, &c., &c., and recommending garlands of the blossoms to be worn for the preservation of the head. The seeds were formerly believed to counteract the effects of a scorpion's sting. The peasant mother—though she no longer uses the Violet in her 'pottage'—administers its syrup to her infant as a medicine suited to its tender age; the Moslem quaffs a similar preparation as one of his favourite sherbets; and the chemist employs it as his most delicate test for acids or alkalis; the former giving it a red tinge, and the latter one of green. The French make the greatest use of the flowers in their 'confitures' and household remedies; and on turning over Machet's 'Confiseur Moderne,' and works of a similar character, we are surprised to find the frequency of receipts for *conserve de violettes*, *glaces a la violette*, *marmalade de violettes*, *Pains soufflés a la violette* (in which, however, Prussian blue and carmine usually do duty for the hue of the flower, while '*iris de Florence en poudre*' represents its scent and flavour), *Pastille a la violette*, *pates des violettes*, *gomme de violettes*, *sirop de violettes*, and numberless confections of a similar character.

"The root of the sweet Violet, *V. odorata*, acts as a powerful emetic, and is frequently used to adulterate ipecacuanha, and in fact the whole of the Violaceæ are thus, though in various degrees, distinguished; the active principle of their roots, which is called violene, closely resembling emetin. Sir William Hooker has satisfactorily ascertained the *Viola Ipecacuanha*, or the *Ionidium parviflorum*, to be the celebrated 'Cuychunchulle' of Dr. Bancroft. Pliny describes a liniment of Violet roots and vinegar for gout and 'disorders of the spleen.'

"Thus the uses of the plant, as well as its exquisite beauty, have attracted attention wherever it occurs—and it is by no means sparingly distributed. Abou Rumi, the eastern poet, exclaims; 'It is not a flower—it is an emerald bearing a purple gem!' And it has been said that the Arabs expressively describe the eye of a beautiful woman by comparing it to a Violet. The ancient Greeks attributed to the goddess of beauty, 'Violet-like eyelids,' and Shakespeare speaks of—

" 'Violets dim,

But sweeter than the lids of Juno's eyes.'

Comparisons which we may refer rather to the delicate tinting of purple which gives so great a charm to some eyelids, especially to those of little babies, rather than to the ancient practice of imitating this tinge by colouring the eyelids with powder of antimony, to which some commentators have attributed it: since the black kohl or antimony cannot well be compared in colour to the Violet.

"Shakespeare alludes to a very old belief, and one which we find frequently and variously expressed, when he says:

* * " 'Lay her i' the earth,
And from her fair and unpolluted flesh
May Violets spring.'

"Or, as Herrick has it—

" 'From her happy spark, here let
Spring the purple Violet.'

"Partly perhaps for this reason the Violet, supreme in its sweetness, finds its place with these and other sweet-smelling herbs in the graveyards of Wales; and the Romans called the days set apart for decking their graves with flowers '*Dies violaris*.' In allusion to this use of the flower, Shelley says:—

" 'Lilies for a bridal bed,
Roses for the matron's head,
Violets for a maiden dead.'

"And, again,—

" 'His head was bound with Pansies overblown,
And faded Violets, white, pied, and blue.'

"The Violet was a great favourite with the Greeks, claiming, according to Theocritus, the earliest place in the flowers chosen for the wreath; and Homer, as translated by Cowper, says:—

* * " 'Everywhere appeared
Meadows of softest verdure, purpled o'er
With Violets; it was a scene to fill
A god from heaven with wonder and delight.'

"Athens was noted for its love of Violets. Aristophanes (Knights) says, 'he lives in the ancient Violet-crowned Athens;' and (Acharn), 'first they called you (Athenians) Violet-crowned.' The same epithet was applied to the Muses, and Homer even calls Venus 'crowned with Violets.'

"Athenæus, like other ancient writers, speaks of the use of Violets for chaplets; but in another place, he pretends that they were excluded from banquets because they affected the head by their scent. In this, however, he is contradicted by Pliny; and Plutarch more distinctly says

'its exhalations greatly assist in removing the affections of the head caused by wine.' Athenæus states that at Cyrene the scent of the Violet is 'especially strong and divine, as is that of other flowers there, excepting the Crocus;' a statement probably borrowed from Theophrastus. He also assigns to 'the black Violet the most agreeable scent.'

"The old Greek poets, in their admiration of the Violet, prettily feigned that when Io was changed into a cow, the earth 'honouring her,' brought forth the Violet for her to feed upon; and Jane Taylor, in her delightful 'Nursery Rhymes,' as prettily, though quite unintentionally, re-echoes the idea of its being a favourite food of the cow:—

" 'Where the purple Violet blows,
Pretty cow go there and dine.'

"Nicander, however, ignores this fable, and substitutes for it the legend already mentioned.

"There is, probably, no land in which the Violet grows—and it abounds in every part of Europe, in Barbary, Palestine, Japan, China, and America—in whose language its praises have not been sung. The Welsh poet says:—

" 'Beautiful are Violets on the broken bank
When starting into sudden bloom;
All trustfully they smile upon the snow
That coldly shrouds the hills above.
They are beautiful!
Oh, they are beautiful! "

"The American bard says:—

" 'When its long rings uncurls the Fern,
The Violet nestling low,
Casts back the white lid of its urn,
Its purple streaks to shew.
Beautiful blossom! first to rise
And smile beneath spring's wakening skies,
The courier of a band
Of coming flowers, what feelings sweet
Gush, as the silvery gem we greet
Upon its slender wand.'

"Robert Storey, the Northumbrian poet, thus alludes to the emblematic meaning attached to the Violet in common with other blue flowers:—

* * " 'Telling me in every wreath I made,
Not to omit the Violet, which meant truth.'

"The Violet was the appropriate May-day prize bestowed on the troubadour, or the minnie-singer of the olden time. Its place was afterwards taken by a golden Violet; and a remembrance of the custom survived in the Toulouse Academy of Floral Games.

"The words of Shakespeare—

" 'To gild refined gold,'

are familiar to every one, but we seldom recollect that the illustration is, to the full, as apt when he pronounces it an equally—

" 'Wasteful and ridiculous excess
To throw a perfume on the Violet.'

"This perfume, according to Lord Bacon, may be preserved for a year or more by repeatedly infusing the petals in vinegar.

"Most persons must have felt the extraordinary power of scents in recalling the memory of long-past years; before the following lines were written—

"The smell of Violets hidden in the Grass
Poured back into my empty soul and frame
The times when I remember to have been
Joyful and free from blame."

"Milton, who is usually most accurate in his observation of nature, makes the remark that—

"In the Violet-embroidered vale
The love-lorn nightingale,
Nightly her sad song mourneth well."

And it certainly is a curious circumstance that the broad band, extending across England, which rejoices in the possession of the sweet-scented *Viola odorata*, is, I believe, also frequented by this bird. Does the plant nourish any peculiar insect on which the nightingale habitually feeds?

"The sweet Violet is not the only one used by the rustic practitioner. The Dog-Violet (*V. canina*)—which, in spite of all our predilections, has really a prettier blossom than its more valued and favoured sister—is used to cure cutaneous disorders, and mixed with milk, it forms a highly-prized cosmetic. In mountainous and sunny districts the flowers of this Violet are of great size and of a brilliant colour, though the plant becomes proportionately dwarfed; while, in barren and sandy 'dunes,' there is satisfactory reason to believe that it dwindles into the *V. flavicornis* of some botanists. This plant, with the three following, belongs to the subdivision of the Violets which are furnished with an evident stem; the remaining three British species being stemless, or nearly so.

"The so-called cream-coloured Violet (*V. lactea*) is a rare species, occurring on high and heathy land, and bearing some resemblance to the *V. montana* of Linnæus, but it is now generally considered to be a distinct plant.

"The yellow mountain Violet (*V. lutea*) occurs in the wilder districts of Wales, Scotland, the north of England, and also, I believe, in Cornwall. At a first view it bears some resemblance to the Pansy (*V. tricolor*), though, in reality, quite distinct from it.

"This last is the 'Hearts-ease,' the 'Herb-trinity,' the 'Love-in-idleness;' the plant with many other pleasant names. Who does not know how Cupid, 'in idleness,' shot his shaft at the fair queen of the 'throned west,' who passed on—

"In maiden meditation, fancy free?"

and how the winged arrow—

"Fell upon a little western flower,
Before milk-white; now purple with love's wound,
And maidens call it Love-in-idleness."

"And who knows not, upon the same authority, that—

"The juice of it on sleeping eyelids laid,
Will make a man or woman madly dote,
Upon the next live creature that it sees?"

"Besides the sweet Violet the stemless sub-division includes the hairy Violet (*V. hirta*), which grows in such well-marked distinctness on calcareous soils only; and the pretty little marsh Violet (*V. palustris*), with its delicately-streaked and roundish blossoms, and its fine glossy leaves. The latter grows in the damp parts of the hilly regions of Scotland and Wales, mingling prettily with its companion flower, the bog Pimpernel."

EUGENIA.

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

MAY 25.—This was one of the most brilliant exhibitions we have witnessed for many a day. Azaleas and Pelargoniums were numerous and very fine. Roses were also grand, and there was a fine display of stove and greenhouse plants. The day was all that could be wished, and there was a large attendance.

In Stove and Greenhouse plants (large collections) there was a keen contest between Mr. Dods, gardener to Sir J. Cathcart, Bart., and Mr. Whitbread, gardener to H. Collyer, Esq., of Dartford. The first had plants equally fine as those shown by him at the Crystal Palace. Mr. Collyer's were also in excellent condition, and nearly equal in merit. The first prize was, however, awarded to Mr. Dods. Of other Stove and Greenhouse plants, Mr. May, gardener to J. Spode, Esq., sent a finely-grown collection all the way from Staffordshire; and among nurserymen, Messrs. Cutbush, Fraser, and Epps also furnished handsome groups. Orchids, we thought, scarcely so fine or so attractive as we have seen them in former years. Azaleas were in great perfection. Mr. Carson's plants, especially, were very fine, Mr. Green's were a little past their best. Of new varieties, Messrs. Ivery had a pretty white, pink-flaked sort, called Flower of the Day; and from Mr. Turner came Advance, also a promising kind. It is a light purple, strongly marked, and very handsome. Miltoni and Chameleon were also good flowers. *A. elegantissima*, a striped kind, was also promising. Heaths and Roses in pots were again in beautiful condition, and had, as they deserved, many admirers.

New plants were scarce—a *Cattleya*, somewhat resembling *Aclandiae*, was shown by Messrs. Veitch, and Messrs. Parker & Williams also sent two or three kinds of *Cattleya* allied to *intermedia*. From the former firm were likewise shown their handsome *Begonias* and *Pothos* formerly noticed, and a yellow-blossomed *Blandfordia*. Mr. Williams, nurseryman, Herdon, had the pretty *Caladium argyrites*, with small leaves, charmingly blotched with white. *Tydaea Duchesse de Brabant* and *Leopoldi* came from Messrs. Parker & Williams, the former purple and the latter scarlet, large and showy, both beautifully marked and very handsome. The last-named firm also sent a pretty little *Vanda*, with straw-coloured sepals and petals and violet lip. We also noticed one or two fine-foliaged plants, none of them very new, from Messrs. E. G. Henderson.

Pelargoniums, like Azaleas and Roses, looked very much better under

canvas than they did at the Crystal Palace; as shown on Wednesday they were all that could be desired. In the Nurserymen's class, Mr. Turner was first with a finely coloured Etna, the large orange-blossomed Festus, Empress Eugenie, Carlos, Mazeppa, Admirable, Governor-General, Lord Raglan, Sanspareil, delicatum, Fair Ellen, and Matilda. Messrs. Dobson had Evelyn, Rosamond, Vestal, Governor-General, Fairest of the Fair, Rosalie, Bride, Admirable, Sanspareil, Starlight, Carlos, Eugenie Duval. Messrs. Fraser sent Clara, Governor-General, Una, delicatum, Admirable, Rosamond, Lucy, Sanspareil, Pallas, Gem of the West, Mr. Hoyle, Eclipse. Mr. Windsor and Mr. Gaines, of Battersea, also showed in this class. Of Fancies, Mr. C. Turner sent large well-bloomed plants in good variety, several of which were new. Of the latter were Crimson Pet, Rosabella, Bridesmaid, Princess Royal, Madame Rougiere, and Communion. Messrs. Frazer had Richard Cobden, Celestial, Conspicuum, Formosissimum, Madame Sontag, and Delicatum. Mr. Windsor furnished Electra, Duchesse d'Aumale, Delicatum, Perfection, Lady Hume Campbell, and Cassandra. Mr. Gaines also contributed a collection. In the Amateur's Class, Mr. Nye, gardener to E. Foster, Esq., furnished a fine plant of Carlos, Fair Ellen, Sanspareil, Saracen, Governor-General, Pallas, Wonderful, Una, Admirable, and Rose Celestial. Mr. Wiggins, gardener to E. Beck, Esq., Isleworth, had Bride, Admirable, Fanny, Laura, Governor-General, Vestal, Wonderful, Sanspareil, and Symmetry. Mr. Bailey, gardener to T. T. Drake, Esq., Amersham, had some well-grown plants, consisting of Conspicuum, Gem of the West, Admirable, Carlos, Governor-General, Floribundum, Fair Ellen, and Mr. Marnock. In Fancies, the best six came from Mr. Bailey, whose sorts were Madame Sontag, Cloth of Silver, Formosum, Celestial, Evening Star, and Lady of the Lake. Mr. James and Mr. Holland, both from Isleworth, exhibited well in this class, in which Mr. Weir and Mr. Turnbull were also competitors.

A nice bank of Seedlings appeared greatly to interest growers of this popular flower, as well as the public. The best were Autocrat (Foster), white centre, dark top, and richly painted lower petals; King of Purples (Turner), rosy purple, spotted on the lower petals; Czar, (Hoyle), similar in character to Autocrat; Angelina (Hoyle), a smooth flower, light lower petals, very dark top; Hero (Turner), salmon spotted; Spark (Turner), a small but vivid scarlet, much the brightest of its class. Fancy Arabella Goddard (Turner), soft rose, white eye and edge, fine form. The Judges selected the above for prizes. There were also Juno (Beck), bright crimson; Apollo (Beck), scarlet, dark top; Eastern Beauty (Hoyle), rose, fine form; Inez (Hoyle), dark top, lower petals light; Jessica (Hoyle), orange, very bright; Lightning (Foster), Favourite (Turner), Mammoth (Turner), Hesperus (Beck), Bridesmaid (Beck), white, resembling The Bride. All the above possess some merit, and many of them at some future time may possibly be found in winning collections. In Fancies, Negress, multiflorum, Symmetry, and Miss Turner appeared to be dissimilar in colour, and were of the finest form. A pretty seedling variegated Geranium, Magnet, appeared dwarf and of good colour, but not new in foliage.

Although the season for Cinerarias is nearly over, nevertheless the two first collections were very good. They came from Mr. Turner, of Slough, and Mr. Shrimpton, of Putney. Messrs. Dobson also had some good plants. The best were Slough Rival, Perfection, Baroness Rothschild, Mrs. Colman, Brilliant (Lidyard), ditto (Smith), and Mr. Hoyle.

Of Tulips some good blooms were shown by J. Hunt, Esq., Wycombe, and Mr. Turner. The best were Eliza, Sarah Headley, Mary Headley, Blœmart, Magnum Bonum, Maid of Orleans, King, Victoria, and Heroine.

Of Verbenas, Mr. Turner had a beautiful boxful of cut blooms, among which the most conspicuous were perhaps Rosalind, large and showy scarlet; Mrs. Pennington, rosy pink, large and fine; and Lord Elgin, deep plum with a white eye.

CALENDAR FOR THE MONTH.

Auriculas.—Place these in a cool shady situation, taking the precaution not to allow the drips from trees or buildings to fall upon them. Green-fly will be troublesome, but must be kept under; if infected, remove the plants to a pit, that they may be effectually fumigated.

Azaleas and Camellias.—Keep the latter close and with humid atmosphere until their growth is completed, when more air and less moisture should be given, to cause them to form flower buds. Clean the decayed petals from Azaleas as they go out of bloom, and well wash the foliage. The plants, after blooming, should be induced to grow by a nice moist atmosphere. Any plants getting naked at bottom may be laid on their sides, to encourage the bare stems to break. Those intended for early forcing will have made their growth, and may now have more light and air, to get them to *set* well for next season's bloom.

Carnations and Picotees.—The main shoots should now be carefully tied to nice green stakes. Remove any dead foliage, and likewise any surface soil that may have become green and sour—replacing with fresh. These also are frequently attacked with green-fly at this season, which should be brushed from the points of the shoots as they appear, and occasionally wash them with tobacco water.

Cinerarias.—Little can now be done with these other than advised last month. Cut down such as are out of flower to within two or three inches of the surface. Stir the surface slightly, and top dress with light soil. A north aspect is the best at this season. Take cuttings as soon as ready for early flowering plants. Sow seeds in a cool frame or north border, which prick off as soon as large enough to handle. Soil may now be prepared by putting together equal parts good turfy loam, leaf-mould, and stable manure. Thoroughly amalgamate, and turn occasionally until required.

Cold Frames.—As these are now clear, fill with Balsams, Lilies, Cape Bulbs, or, indeed, anything in the way of greenhouse plants, to forward for blooming in the autumn.

Conservatory.—As the beauty and gaiety of the out-door gardens increase, less may be expected here, and it will afford a good opportunity of attending to the permanent occupants. Stove and greenhouse Ferns, Palms, and other fine-foliaged plants from the stoves, may be introduced now for two or three months with good effect; these should be mixed with Pelargoniums and other plants producing colour, and a pleasing variety will be imparted.

Dahlias.—Complete planting as soon as possible. The soil having been well prepared during winter, a little rotten manure to each plant is all that will be required unless the soil is very stiff, when a little leaf-mould may be advantageously applied to give the plant a fair start. Keep them regularly and well watered, and secure them to stakes at the time of planting.

Flower Garden.—Everything in the planting-out way should be brought to a close as quickly as possible. Plants of straggling habit should be at once secured by pegging or tying, as the wind may break them. We are no advocates for much watering, but when the ground becomes dry, give a good soaking, and allow the soil to again get dry before repeating. On many soils, daily slight waterings do more mischief than good. As the plants progress, let them be properly trained, to cover the surface of the bed. Plants in ribbon borders must have their lines well defined, to be effective. Stake Hollyhocks and all tall growing plants. Herbaceous plants, as Asters, Phloxes, Delphiniums, when too thick, may have their shoots thinned out. The new herbaceous Phloxes are fine things for autumn decoration, and equally useful for cutting, and should be well encouraged. Sow Brompton Stocks for next season's flowering. Hardy annuals may be sown for late blooming, and tender annuals transferred to borders. Attend to keeping close Grass verges and lawns. When the planting out is done, will be a good time to fresh gravel the walks, as they will then keep a fresh appearance through the season. Tie out plants in vases or baskets, so as to present a natural appearance; and look well to tying in Roses and climbing plants generally on walls, trellises, &c.

Fruit (hardy).—Let the wall trees have every attention. Peaches which have been crippled with the cold weather will require much care to get into good wood for another season. Continue to watch for and keep down insects. Let disbudding and nailing in proceed whenever the year's wood is sufficiently advanced. Newly planted trees may require to be mulched should the weather become hot or dry (it is anything but that now). We say nothing about thinning; those who have a superabundance may do so; we have not.

Hollyhocks.—Mulch these, after which give them a thorough good watering, and continue to give them a good soaking once or twice a week, according to the weather. Secure the plants to strong stakes firmly placed in the ground.

Kitchen Garden.—Preparations for keeping up successional crops of vegetables will go hand in hand with cultural operations to growing

crops, bearing in mind that by frequently stirring the earth between and around growing crops, you assist vegetable growth immensely, and add two-fold to the productive powers of the soil. In dry soils, mulching is the sheet anchor of the gardener for getting quick-growing crisp vegetables, and we cannot too strongly recommend the practice, having previously well loosened the surface. Half-decayed dung, leaves, or in fact any litter which will cover the surface soil without blowing about will do good. Peas, Beans, French Beans, Cauliflowers, Lettuces, Spinach, &c., should be sown at intervals through the month. We find a good early Pea, as Goliath or Sangster's, makes a good late one, but the Mammoth is our favourite. Plant out Celery and Cardoons in well-manured trenches, and on this plan the best crops of late Peas are to be obtained. Tomatoes should be planted against south walls, or on a warm border, to cover the soil.

Melons.—The last crop of Melons may now be sown. Succession crops earthed up. Reduce the quantity of water as the crop changes colour, and increase the amount of air, to improve the quality of the fruit.

Pansies.—These must be propagated as often as fresh cuttings can be obtained. They strike best on a shady border under small hand-glasses.

Pelargoniums.—The plants in flower will require to be carefully shaded according to instructions given last month. Water freely every morning, and give as much air as possible to keep away any moisture that may arise at night and during dull weather. Stake and neatly tie the later flowering plants as they advance in growth, keeping them clear from insects. As soon as the early plants have done blooming, they may be removed to a sheltered situation out of doors. Be sparing with water, to enable the wood to become nicely matured before cutting down. Seedlings should now be selected, discarding any which are not decided advances on known kinds.

Peach-house.—The ripening crop should have as much air as possible, to give colour and flavour to the fruit. Fruit swelling may, now there is plenty of light, have a more warm and humid atmosphere, which Peaches delight in. When swelling off, be careful, however, to keep the night temperature down.

Pinery.—Fruit swelling off cannot well have too humid an atmosphere, if attended with light. Tie up the fruit, to keep them upright. Water may be given now liberally if the soil in the pots is in good condition. Successions should be potted on and kept close to the glass as they get full of roots.

Tulips.—Beds that have been covered should now be uncovered, and allowed all the weather, unless we get very heavy rains. Too much moisture would be injurious.

Vinery.—Ripe Grapes require plenty of air. The houses for ripening Grapes for winter should have fire-heat when the weather is cool. Keep down spider and mildew by free ventilation and applying sulphur, mixed with lime, to the walls and heating apparatus.



Cattleya.

LÆLIA SPECIES.

[PLATE 153.]

WE have much pleasure in presenting our readers with a plate of this charming plant, which has recently flowered in the fine collection of Mr. Veitch, of the Exotic Nursery, King's Road, Chelsea, and which will prove a valuable addition to this genus of plants, already well known as the most beautiful even among Orchids. To our artist the name *Cattleya* was given; but it is doubtless a *Lælia*, and probably *L. Schilleriana* of Reichenbach. Mr. Veitch informs us that it is one among many other things which he imported from the Continent without a name. It is, as will be seen, a really fine thing, and will doubtless soon find its way into collections. We had intended giving our readers an article on the cultivation of Orchids generally; but we find that as every large cultivator has something in practice peculiar to himself, it will be more advisable to wait until we have further information on a subject so full of importance to Orchid growers. We, however, furnish the following list of a few very select sorts, which comprise all the more valuable kinds to grow, and which will prove a useful guide to purchasers in making selections.

SELECT LIST OF ORCHIDS.

<i>Aerides</i> affine, long racemes of rosy pink and white	<i>Cattleya</i> Aelandiæ, fine crimson lip
„ <i>crispum</i> , branching spikes, pink labellum, blush sepals	„ <i>amethystina</i> , blush sepals, fine puce lip
„ <i>Fieldingi</i> , or “Fox’s brush,” pendulous racemes of purple and white	„ <i>crispa superba</i> , light sepals, purple lip
„ <i>Larpentæ</i> , pendulous racemes of lilac and white	„ <i>elegans</i> , ditto ditto, fine throat
„ <i>Lindleyanum</i> , the finest variety of <i>A. crispum</i>	„ <i>labiata</i> , fine blush sepals, large dark pink lip, one of the finest autumn Orchids
„ <i>Lobbi</i> , bright pink and white, spotted	„ <i>Mossiæ</i> , an old but very showy useful kind
„ <i>maculosum</i> , racemes of pink and white, fine lip	„ <i>Skinneri</i> , fine crimson purple
„ <i>odoratum</i> , white with lilac tinge; an old and cheap kind, but very sweet	<i>Chysis</i> <i>bractescens</i> , clusters of white and yellow
„ <i>quinquevulnera</i> , long racemes of crimson and white, spotted, fine	<i>Cœlogyne</i> <i>cristata</i> , beautiful clear white, with yellow throat
„ <i>virens</i> , pink and white spotted, long racemes	<i>Cymbidium</i> <i>eburneum</i> , pure white, scented
<i>Barkeria</i> <i>spectabilis</i> , white spotted with lilac; does best on a block, in a cool damp stove	<i>Cypripedium</i> <i>barbatum majus</i> , dark purple, spotted
	„ „ <i>superbum</i> , very fine
	„ „ <i>caudatum</i> , ditto
	„ „ <i>villosum</i> , ditto
	<i>Dendrobium</i> <i>Cambridgeanum</i>
	„ <i>Dalhousieanum</i>
	„ <i>densiflorum</i>

Dendrobium Devonianum	Phalaenopsis amabilis
„ Farmeri	„ grandiflora
„ formosum	Saccolabium Blumei
„ macrophyllum	„ „ majus
„ onosum	„ curvifolium
Laelia anceps	„ guttatum
„ autumnalis	„ miniatum
„ purpurata	„ præmorsum
Lycaste Skinneri	Sophronitis grandiflora
Miltonia Morelliana	Trichopilia suavis ; <i>and others.</i>
Odontoglossum citrosum	Vanda cœrulea
„ grande	„ Loweii
„ nævium	„ gigantea
„ Pescatorei	„ Roxburghi
„ pulchellum	„ suavis
Oncidium Lanceanum	„ teres
„ sarcodes	„ tricolor
<i>And many other good kinds.</i>	<i>And many others.</i>

CRYSTAL PALACE HORTICULTURAL EXHIBITION.

JUNE 8.—A fine day and an excellent exhibition brought together on this occasion a considerable assemblage of visitors.

Stove and greenhouse plants were again furnished in great quantities, and in beautiful condition. Indeed, nothing in their way could possibly be finer than the magnificent plants which covered the stages of the large round table in the centre of the principal transept. These were contributed chiefly by Mr. Dods, gardener to Sir J. Cathcart, Bart., and Mr. Whitbread, gardener to H. Collyer, Esq., of Dartford, between whom the struggle for mastery in this class of plants now principally lies. This time, their merits were regarded by the judges to be equal. In Mr. Dods' group were noble examples of Allamandas, blue Leschenaultia, Everlastings, among which Aphelexis macrantha rosea was conspicuous ; Azalea variegata and lateritia, both still in admirable condition as regards bloom ; the fine variety of Cape Heath called Erica tricolor Wilsoni, Coleonema rubrum, Eriostemons, Adenandras, Boronia serrulata, and some very fine Ixoras, more especially a plant of the Willow-leaved variety, on which were such heads of bloom as one rarely sees on this kind. It had been grafted on I. coccinea, which appears to be an excellent stock for it. In Mr. Collyer's group were equally fine specimens of nearly the same kind of plants, collections of which were also contributed by Messrs. Peed, Green, Page, and Baxendine. Smaller exhibitions came from Messrs. Rhodes, Cutbush, Kail, Chilman, Smith, Carson, Tegg, and Hamp. Among these were nice specimens of Stephanotis floribunda, Pimelea Hendersoni, Polygalas, Dracocephalum gracile, blue Leschenaultias, Cyrtoceras reflexum, Allamandas, Boronias, Abelia floribunda, Ixoras, Combretium coccineum finely in flower, Everlastings, Cape Heaths, and Azaleas.

Of plants remarkable for fine foliage there was a large collection from Messrs. Veitch, who contributed among other things beautiful plants of Dieffenbachia picta, Dracænas, Palms, variegated Screw Pines, Maranta

vittata and zebrina, Crotons, and the handsome *Theophrasta imperialis*, and some tree Ferns. Messrs. Jackson and Cutbush also furnished good collections, as did likewise Messrs. Dods, Colgate, Young, Summers, Oubridge, Rhodes, and Hamp. Among these were the handsome *Maranta capitata*, formerly noticed by us; *Caladiums* of different kinds, *Cissus discolor*, Palms, Ferns, among which was a magnificent example of *Platynerium grande* from Mr. Dods; *Aralias*, of different sorts, *Farfugium grande*, *Begonias*, *Rhopalas*, *Musas*, and *Calatheas*.

Orchids were produced on this occasion in better condition than we have seen them at any exhibition this year. Messrs. Veitch had a splendid group, which contained among other things beautiful specimens of White Butterfly plants (*Phalaenopsis*), *Cattleya Mossiae*, one of the handsomest varieties of *Cypripedium barbatum*; various *Aerides*, among which the Fielding Fox-brush was conspicuous; *Saccolabium guttatum*, *Vanda suavis*, the charming purple-lipped white-blossomed *Lælia purpurata*, the showy clear yellow blossomed *Oncidium ampliatum majus*, and others. The next group in point of merit came from Mr. Gedney, gardener to the Rev. Mr. Ellis, of Hoddesdon. It contained *Cypripedium villosum*, finely in flower; *Phalaenopsis*, the beautiful *Dendrobium Devonianum*, the yellow Tulip-like *Anguloa Clowesi*, *Lælia purpurata*, *Dendrobiums* of different kinds, *Aerides*, and *Saccolabiums*. From Mr. Bullen, gardener to J. Butler, Esq., of Woolwich, came the handsome *Dendrobium Farmeri*, with numerous racemes of cream-coloured flowers blotched with rich orange; *Cattleya Loddigesii*, with deep lilac blossoms; the showy *Sobralia macrantha*, *Anguloa Clowesi* with six flowers, all in perfection; and *Trichopilia coccinea*. Mr. Woolley had a good group, as had also Messrs. Dods, Carson, Rhodes, Page, and Green. In these we remarked the Orange *Saccolabium curviflorum*, *Camarotis purpurea*, *Dendrobium aggregatum*, *Lælia cinnabarina*, *Lycaste Skinneri*, *Stanhopea oculata*, and *Calanthe veratrifolia*.

Azaleas were greatly past their best, and made but little display. Tall Cacti, of which two collections were produced—one from Mr. Green, the other from Mr. Bunn, gardener to R. S. Scott, Esq., of Hornsey—were however better, if possible, in flower than they were in May, and were for their number, which was small, very effective. A handsome seedling *Epiphyllum*, rich violet and crimson in colour, was shown by Messrs. Frazer.

Cape Heaths were again furnished in great quantities and in good condition: but still deficient in novelty. They, however, had their admirers.

Roses in pots showed unmistakeably the ill effects of the late bright weather. With the exception of those from Messrs. Lane, which were good, the rest were very much past their best. Among them were *Baronne Prevost*, *Madame Plantier*, *Coupe d'Hébé*, *Paul Perras*, *General Jacqueminot*, and other well-known kinds. Of yellows, we noticed a fine plant of the Persian, from Mr. Terry, gardener to C. W. G. Puller, Esq., of Youngsbury, Herts. Cut blooms, very good for the season, were shown by Messrs. Paul. Among them *Jules Margottin* and *Coupe d'Hébé* were remarkably fine.

Ferns, both exotic and British, were in unusually good condition and formed one of the principal features of the show. Of the former the best collection came from Messrs. Veitch, who sent among others splendid examples of *Gleichenia flabellata*, *Speluncæ*, *dichotoma*, and *heciostophylla*; *Angiopteris evecta*, *Cyathea dealbata*, *Alsophila guianensis*, *Dicksonia antarctica*, *Balantium culcita*, *Todea Fraseri*, *Cibotium Schiedeii*, and *Davallia polyantha*. Messrs. Woolley and Halley also showed good groups, as did also Mr. Baillie, gardener to C. Carbonell, Esq., and Mr. Summers, gardener to A. Mongredien, Esq. The former sent *Todea pellucida*, quite a gem; four species of *Gleichenia*, one, *microphylla*, very large and fine; *Alsophila aculeata*, a beautiful *Microlepia platyphylla*, and *Davallia oculata*, the last a charming species. Mr. Summers sent *Microlepia polypodioides*, *Adiantum trapeziforme*, a very good *Cheilanthes elegans*, the Bird's Nest Fern, the rare *Gymnogramma hybrida*, and a good plant of *Lygodium scandens*. Among British sorts was nothing remarkable.

Of new plants, Messrs. Veitch sent as usual the largest number. Among them were the Californian *Torreya myristica*, and *Thuja Lobbi*; various fine *Begonias*, the best of which have been noticed by us on former occasions; a cut specimen of *Ceanothus* too withered to judge of its merits, *Farfugium grande*, the lilac and white-flowered annual *Fenzlia dianthiflora*, *Chamæbatia foliolosa*, a hardy flowering shrub from California, with handsome Mimosa-like foliage; *Chianthus Dampieri*, a charming variety of *Cattleya* in the way of *C. elegans*, and a new variety of *Gymnogramma*. Messrs. Jackson sent some handsome *Caladiums* and *Genetyllis macrostegia*. From Mr. Standish came a white-blossomed *Viburnum* from the north of China; Mr. Carson, *Cyanophyllum magnificum*; Mr. Williams, the North American *Good-yera pubescens*, a pretty kind, which will succeed in a greenhouse; Mr. Gedney, a handsome large rich Orange-flowered *Hemerocallis* from Natal, with semi-double flowers, and *Tachiadenus carinatus*, a Gentian-like plant with pretty violet blossoms. Mr. Barnes, of Southampton Street, Camberwell, had some *Begonias*, the best of which was *Queen of England*, a kind with large and showy leaves. The same eminent cultivator also sent of *Prince of Wales*, *Princess Alice*, *Minnie*, and *Water Witch*, all pretty, but perhaps a little too much alike. From the neighbourhood of Windermere, Mr. Binder sent a good specimen of the Holly-like *Desfontainia spinosa*, well furnished with bright crimson flowers tipped with orange yellow. And we also noticed from another exhibitor the orange scarlet *Embothrium coccineum*, also one of Messrs. Veitch's valuable introductions to this country.

Of pitcher plants Messrs. Veitch and Gedney exhibited splendid collections, in which were noble examples of *lanata*, *Hookeri*, *lævis*, *Rafflesiana*, *distillatoria*, *ampullacea*, *vittata*, and others, all of which excited much interest.

At the end of a long bank of *Pelargoniums* were the seedlings, to which eight prizes were awarded. In large varieties Lord Clyde was selected as the best. It is a bright free-flowering scarlet, of fine form and substance, with very dark blotch on the top, having a narrow margin of vivid crimson. This and *Bijou*, which was third, a curious

shade of bluish purple, were raised by Mr. Nye, gardener to E. Foster, Esq., Clewer Manor. Bacchus, Ajax, and Unique, also of superior form, were from the same raiser. Angelina (Hoyle), an improved Fair Ellen, and very fine, was second. Of large spotted kinds, known as French, there were considerable numbers. King of Purples is a large flower of good quality; Bracelet, rose ground, finely marked with maroon spots, full size, and good habit; Magpie, white and maroon with black in centre of the spots. Rifleman, Beadsman, flowers in the style of Sanspareil, much better, and as free. These all came from Mr. Turner, of Slough, the three first named being selected by the judges for prizes. In Fancies were Sarah Turner, bright crimson, with white centre and edge, and free good habit; and Omega, a rosy crimson, suffused with purple, and of the finest possible form; Amy Sedgwick, fine Rose, Louisa Pyne, light, and Lady Craven, crimson Rose, were each and all good and new. These were raised and exhibited by Mr. Turner. The judges selected the two first.

In bedding Geraniums, Messrs. Veitch received a first prize for Mrs. Ponsonby Moore, a spotted kind, of dwarf free blooming habit, colour bright crimson, each petal being ornamented with distinct maroon spots. This was greatly admired. Christina (Kinghorn) also received a prize; it appeared to be a good free blooming bedding kind of a lively pink colour.

Collections of Pelargoniums were numerous and generally good. Mr. Nye had some fine plants, the best and most effective of which were Flora, Prince of Wales, Saracen, Meteor, Fair Ellen, Viola, Wonderful, and Carlos. Mr. Thos. Bailey, gardener to T. J. Drake, Esq., Amersham, sent the next best collection, which contained a good Carlos, Miss Foster, Meteora, Mr. Marnock, Governor-General, and Spotted Gem. Mr. Bailey was first with fancies in the amateur class, his plants being nicely bloomed, but not large—Acme, Celestial, Lady of the Lake, Evening Star, Princess Royal, and formosissimum were the kinds. Mr. James and Mr. Oubridge also contributed collections. In the Nurseryman's class Mr. Turner, Messrs. Dobson, Mr. Windsor, and Messrs. Fraser were placed in the order in which their names appear. The best in Mr. Turner's collection were Candidate, Cynthia, Viola, Governor-General, Fair Ellen, and Saracen. Messrs. Dobson's contained good plants of Evelyn, Fairest of the Fair, the Bride, Miss Foster, and Rose-leaf.

In the class of fancies were some remarkable specimens. Mr. Turner's plants were Celestial, delicatum, Evening Star, Madame Sontag, Madame Rougiere, and Cassandra. These were of immense size and of unequalled beauty, every leaf being hid by the mass of blossoms, which in some cases were so crowded together as to prevent many opening. Mr. Windsor and Messrs. Fraser also sent well bloomed collections.

Of Fuchsias there were some beautiful exhibitions, consisting of pyramidal plants six and eight feet high, and loaded with flowers from bottom to top. The sorts were not different from those shown before this year. One plant, Souvenir de Chiswick, is however well worthy of notice. It was a fine specimen of a good kind, and was literally loaded

with large and showy blossoms, whose charming violet-coloured corollas and deep crimson sepals and petals rendered them objects of general admiration. This is a kind well worth possessing.

Calceolarias, both herbaceous and shrubby, were shown; but we did not observe among them anything new. Of the former the best came from Mr. Cross, gardener to Lord Ashburton, at Addiscombe. They consisted of yellow and buff grounds dotted all over with minute spots, with the exception of one, which was blotched, a class to which too little attention has lately been paid.

Verbenas were shown in fine variety in a cut state by Mr. Turner. We have before named the best kinds. Mrs. Maclean was very beautiful.

Pinks were shown by Mr. Turner and Mr. Bragg. Mr. Turner's kinds were: Unanimity, Napoleon, Gem, Godfrey Seedling No. 3, Seedling Mr. Hobbs, Mr. Weedon, Winchester Rival, Sovereign, Prince of Wales, optimus, Adonis, Koh-i-noor, Invincible, Helen, Lady Blandford, New Criterion, Colchester Cardinal, Seedling No. 6, Hebe, Sultan, Seedling Little Gem. These were finely laced, and larger than the average.

Of fruit a considerable quantity was produced, but much of it was not above mediocrity. A Providence Pine Apple, weighing 11 lbs. 4 oz., came from Mr. Floud, gardener to R. Fothergill, Esq., of Aberdare, and some good fruit of the same variety also came from Mr. Bailey, gardener to T. Drake, Esq. Shardeloes; Mr. Young, gardener to C. Bailey, Esq., likewise sent a good Providence. The best Queen came from Mr. Young, gardener to W. H. Stone, Esq., of Dulwich. Mr. Bailey also had a good fruit, and a third came from Mr. Davis, of Starch Green, Hammersmith. Mr. Scott, of Leigh Park, sent a very good Black Prince. We also noticed one or two Black Jamaicas.

Black Hamburg Grapes were again furnished in admirable condition—large and black, both in bunch and berry—by Mr. Hill, Keele Hall, Staffordshire; by Mr. Frost, gardener to E. L. Betts, Esq.; Mr. Tillyard, gardener to Viscount Eversley; and Mr. Thomas, gardener to J. Baxendine, Esq., of Whetstone. The best basket of 12 lbs. came from Mr. Thurston, of Leicester. Messrs. Alderson and Smith also showed well in this class. White Grapes were not good. The best Muscats were exhibited by Mr. Embry, gardener to A. Moss, Esq., of Chadwell Heath; and Mr. Richards and Mr. Baker also sent exhibitions. Exhibitions of Grapes in pots were not good. The bunches were small, and in some cases unripe.

Peaches were not very plentiful. The best Royal George were contributed by Mr. Sage, of Ashridge. Mr. Frost also sent the same variety, as did also Mr. Hill and Mr. Masters, gardener at Sherburn Castle, Oxon. Elruge Nectarines, large and fine, were furnished by Mr. Frost, of Preston Hall, and an equally fine dish of Violet Hâtive came from Mr. Hill, gardener to R. Sneyd, Esq. Mr. Page and Mr. Masters also both showed good dishes.

Of Apricots, a dish of small but well ripened fruit came from Mr. Ferguson, of Stowe.

Melons were present in considerable numbers. The best in point of

flavour in the opinion of the judges were Bailey's Green-fleshed and the Bromham Hall. Of scarlet-fleshed sorts the best was one called Scarlet Gem, a small kind from Mr. Tegg, gardener to Baron Hambro', at Roehampton.

Of Figs, Mr. Snow, gardener to Earl de Grey, sent a beautiful dish of the Brown Turkey, large and finely ripened. Some good fruit of this kind also came from Mr. Frost and Mr. Richards of Tadcaster.

Of Cherries, by far the best were two dishes, one of Black Circassian, the other Elton, from Mr. Henderson, gardener to the Duke of Sutherland at Trentham. These we were informed had been grown in the kind of glass structure known as the "Trentham case," and were certainly very fine. Others came from Mr. Ferguson, of Stowe.

Plums were shown by Mr. Ingram, gardener to J. J. Blandy, Esq., who sent good fruit of Denyer's Victoria.

Strawberries were not remarkable either for quantity or excellence. The best were dishes of Sir Charles Napier, British Queen, and Keens' Seedling from Mr. Smith, of Twickenham. Mr. Clarke, of Twickenham, and Mr. Stoddart, of Colchester, also both had good fruit of the kinds just named.

Among miscellaneous exhibitions we noticed a bunch of unripe Bananas and some very good Cucumbers.

CAMELLIAS.

In your April number, Mr. Kite asked a question about Camellias, which appears to be only indirectly answered in the "leading article" of the next month, as the question itself is not there alluded to. The variety figured is very beautiful, but it is not new, as it occurs in a list I made with great care six years ago, for practical purposes, and which I append to these remarks, as an additional answer to the above question. In an eminent grower's catalogue of that year, the name was spelt with two slight differences from your orthography of it, but those differences made the name beyond question a Flemish one, which, however, might have been given it in Belgium, though the plant were raised in Italy; just as Wood's Duchess of Norfolk Rose is of French origin, though it has an English name.

As my purposes were not carried out, and a long period has since intervened, my list must, in some degree, be obsolete; and, therefore, I shall be as much obliged as your April querist if you or some experienced correspondent would revise and correct it, and bring it down to the present time. Mr. Kite's list appears, as far as it goes, to be a good one, but it omits what I think the most perfect of Camellias, and the only white that surpasses the old Double White or Alba Plena, namely Montironi. This variety may have too little depth for some, for it lies most evenly flat; but its exquisite form, its perfect imbrication, and the semi-transparent ethereal white of its complexion, render it more like a carved ivory brooch than a real living flower; and as the plant blooms very freely, and is of hardy constitution, though of stiff

erect habit, it is worth a place in every collection, if that collection consists but of two.

In forming the subjoined list, I was much indebted to a correspondent of the *Florist* in 1853 (the same year by the bye that Mr. Powell described and gave a figure of Cox's Orange Pippin, and anticipated all that has been said of that Apple in the last two years.) The writer I speak of signed himself "Mediterraneus;" and I would advise every amateur Camellia grower to consult that article, though, for myself, I should also like to consult the writer's collection. It divided the colours into classes—a convenient method, and worth following, though I have not exactly copied his, nor do I entirely agree with the colours to which he assigned some varieties—reticulata for instance. It will no doubt surprise you that I have omitted that now celebrated name, reticulata, from the list; but it was purposely omitted, for I possessed the variety at its first introduction, near thirty years ago, when it was ten guineas a plant, and know its habit. In a large specimen, it is extremely effective, but it is of awkward growth, many leaves having no bud in the axil, and so it rarely forms a small bush well. It should be spread against an expanse of wall, as at Mr. Byam Martin's. By the way, Martini, raised by the late Mr. Jackson, of Kingston, and named after that gentleman, should, by this time, be added to the list in class IV.

CLASS I.—WHITE.

1. Alba Plena, old Double White
2. " " di Casoretti
3. " Imbricata (Low)
4. " Insignis
5. Mrs. Gunnell
6. Montironi
- 7 Ochroleuca.

II.—BLUSH.

8. Americana (Dunlop)
9. Prince Albert (Chandler)

III.—PINK, ROSE.

10. Beali rosea
11. Chandleri elegans
12. Clowesiana
13. Duc de Bretagne
14. Henri Favre
15. Imbricata (Dunlop)
16. Marchioness of Exeter
17. Miniata (Low)
18. Mazeppa
19. Sacchoiana
20. Storyi
21. Triumphans
22. Valtevrede
23. Vexillo de Flore
24. Wilderi

IV.—CARMINE, CRIMSON, RED.

25. Beali
26. Bruceana

IV.—continued.

27. Imbricata
28. Gretry
29. Mathotiana
30. Melloni
31. Monarch
32. Reine des Fleurs
33. Reine Louise

V.—WHITE GROUNDS.

34. Countess of Orkney
35. Feasti
36. Jubilee (Low)
37. La Reine
38. Madonna
39. Mrs. Abbey (Wilder)
40. Teutonia

VI.—COLOURED GROUNDS.

41. Arioste
42. Comte de Paris
43. Jacksoni
44. Maddalena
45. Marguerite Guillon
46. Mazachelli
47. Reine des Belges
48. Thomasini

SEMI-DOUBLE.

49. Donkelaari
50. Tricolor

TO ME UNKNOWN.

51. Connestabili
52. General Lafayette

IOTA.

SALVIA GESNERÆFLORA.

I PROPAGATE and cultivate this without heat. I take cuttings in March or April; good plants always push from the base or the roots in March; as these are useless for flowering, I cut them off, and select cuttings from them—strong short bits, with three joints. I take the leaves from the bottom joint only, and insert the cuttings singly in the middle of thumb pots filled with loam, silver sand, and charcoal, sprinkling them with water, and covering with bell glasses. I then place them in the shade in the greenhouse, sprinkle the leaves, and wipe the damp from the glasses once a day; and thus managed, they soon strike. I inure them to the air of the house, harden them gradually, then place them in a cold frame; when the pot is filled with roots, I shift into a pint pot, when that is filled into a two-quart pot, and when that is full of fibres give the final shift into eleven-inch pots. They must not be allowed to get pot-bound till they have had the last shift, or they will be stunted. Each plant requires one stick to keep it upright. I never stop the leader, nor any shoot, but let them take their own natural form, which is pyramidal. The frame will preserve them from injury by wind, for I never put the lights on, except to preserve the inmates from frost and excessive wet, and I always tilt them during rain. I introduce the plants to the greenhouse in October, let them have plenty of room and light, and water when necessary. As the pots are very full of roots, I give water till it runs through the hole at the bottom. When the flower buds show colour I give weak manure water every watering. If the house requires smoking while they are in bud or bloom, they should be removed to some other place for the night, or they will lose their flowers and forward buds. The soil I use is light loam, mixed with a little old cow-dung and silver sand, and a liberal quantity of broken charcoal.

T. O.

SCOTTISH PANSY SOCIETY.

THE fifteenth annual competition of this Society was held in connection with the Edinburgh Horticultural Society, in the Victoria Hall, Royal Zoological Gardens, on Saturday, the 4th ult.

The long continuance of hot and dry weather during the month of May prevented members from being able to bring forward as great a number of stands as we have seen on former occasions. Notwithstanding these adverse circumstances, however, the competition was extensive and well contested. The censors, after a most careful and laborious scrutiny, awarded the prizes as follows, viz.:—

Nurserymen's Prize, for the best 24 dissimilar blooms: 1, Messrs. Downie & Laird, West Coates, with Royal Standard, Miss Hill, Miss Talbot, General Vernon, Duchess of Wellington, Mary Lamb, Mrs. Hope, Countess of Rosslyn, Mr. J. Graham, Lord Cardigan, Lady Matheson, Nepaulese Chief, Mrs. Laird, Leviathan, Colonel Windham,

Mr. J. White, Princess Royal, Seedling No. 26, Lady Napier, Charles M'Intosh, Mrs. Mill, Una, and General Young; 2, Messrs. Dicksons & Co., Leith Walk, Royal Standard, Mrs. Hope, J. B. Gough, Seedling 1859, Sir J. Cathcart, Mrs. Laird, Jeannie, Princess Royal, Refinement, Mary Lamb, Seedling 1859, Mr. A. Murray, Col. Windham, Earl of Derby, Eugenie, Seedling '59, Ariadne, Seedling '59, Perfection, Lizzy, Seedling '59, Charles M'Intosh, and two other Seedlings of 1859; 3, Mr. J. H. Douglas, Rosebank, Edinburgh; 4, Messrs. Robertson, Paul, & Co., Paisley.

Practical Gardeners and Amateurs: For the best 18 dissimilar blooms: 1, Mr. M'Farlane, gardener, Barnton, Edinburgh, with Titian, Mrs. Hope, Royal Standard, Royal Albert, Mary Lamb, Mrs. Dodwell, Mrs. Laird, Lady Belhaven, Sir J. Cathcart, Beauty, Christina, C. M'Intosh, James White, C. W. R. Ramsay, Eugenie, Jeannie, Lord J. Russell, and Countess of Rosslyn; 2, Mr. J. Fraser, Belmont, Edinburgh, with Duchess of Wellington, Jeannie, Colonel Windham, Mrs. Hope, Titian, Indian Chief, Royal Standard, Sir J. Cathcart, Mrs. Laird, St. Andrew, Miss Talbot, Lord J. Russell, Alice, Mr. J. White, Una, Captain Vickers, C. M'Intosh, and Venus; 3, Mr. Niven, gardener, Keir, Dunblane; 4, Mr. Dunlop, gardener, Inglis, Green, Slateford.

For the best 12 dissimilar blooms: 1, Mr. M'Farlane, gardener, Barnton, with Mrs. Dodwell, Mary Lamb, Mrs. Hope, Mr. A. Murray, Alice, Sir J. Cathcart, Mr. J. White, C. W. R. Ramsey, Earl of Derby, Christina, Lord Dunfermline, and Royal Standard; 2, Mr. Dunlop, gardener, Inglis Green, with Topee (a dark self seedling), Mrs. Laird, Rev. H. Gosset, Jeannie, Eugenie, Mr. J. Graham, Countess of Rosslyn, Blink Bonny, Royal White, Sir C. Campbell, Gold Stud (a yellow self seedling), and Venus; 3, Mr. Niven, gardener, Keir; 4, Mr. James Gibson, gardener, Cathcart, Glasgow.

For the best 6 dissimilar blooms: 1, Dr. Stuart, Chirnside, Berwick, with Duke of Sutherland, Countess of Rosslyn, Ariadne, Blue Beauty, Duchess of Wellington, and Una; 2, Mr. J. Hampton, Newport, Fife, with Sir Colin Campbell, Col. Windham, Jessie (Hampton's), Indian Chief, Garibaldi (Hampton's), and Princess; 3, Mr. Niven, gardener, Keir.

Amateurs, exclusively, who cultivate their own plants: For the best 6 dissimilar blooms: 1, Dr. Stuart, Chirnside, with Mrs. Hope, Una, Georgey, Blue Beauty, Countess of Rosslyn, and Ariadne; 2, Mr. J. Hampton, with Col. Windham, Jessie, Cyrus, Countess, Indian Chief, and Countess of Rosslyn; 3, Mr. Charles Watson, Dunse. For the best dark self, Mr. J. Hampton, with Indian Chief. For the best yellow self, Mr. Wilson, Old Cathcart, Glasgow, with Yellow Model. For the best white ground: Dr. Stuart, Chirnside, with Countess of Rosslyn. For the best yellow ground: Mr. Wilson, Old Cathcart, with Sir C. Napier.

Open to all, for the best 12 blooms, classed, viz., 4 selfs, 4, light grounds, and 4 yellow grounds: 1, Mr. M'Farlane, gardener, Barnton, with Mrs. Hope, Titian, Eugenie, Christina, Mrs. Laird, Alice, Royal Albert, Countess of Rosslyn, Mr. J. White, Mary Lamb, C. W. R.

Ramsey, and Blue Model; 2, Messrs. Dicksons & Co., with Royal Standard, Mary Lamb, Col. Windham, Countess of Rosslyn, Mrs. Hope, Sir J. Cathcart, Seelling of 1859, J. B. Gough, Ariadne, Jeannie, and Charles Mcintosh; 3, Mr. Niven, gr., Keir, Dunblane.

Open to all, and selected from all the blooms in the room: For the best self in the room, Mr. Taylor, Blaydon Burn, Newcastle, with Royal Purple. For the best yellow ground in the room: Mr. McFarlane, Barnton, with C. W. R. Ramsay. For the best white ground in the room: Messrs. Dicksons & Co., with Countess of Rosslyn. For the best Pansy in the room: Mr. Taylor, Blaydon Burn, with Royal Purple. Sweepstakes for the best 12 dissimilar blooms, open to all, the prize was awarded to Mr. J. H. Douglas, Nurseyman, Rosebank; there was, however, no competition for this prize.

New flowers were on this occasion produced in considerable numbers, some of which contested very severely with older favourites for the pre-eminence, as will be sufficiently evident by a glance at the winning stands. Mr. McFarlane's new yellow ground flower, "C. W. R. Ramsay," figured in each of his first prize stands, took the prize for the best yellow ground in the room, and was awarded a certificate of merit; another flower shown by Mr. McFarlane "Titian" (a dark self) very nearly beat Mr. Taylor's Royal Purple. There was a good white ground flower, "Mary," in Mr. Douglas's stand from Rosebank, to which a certificate of merit was awarded; the "Countess of Rosslyn" was the only check to this flower coming in for the prizes for the best white ground in the room. These facts are sufficient to prove the increasing interest taken in the improvement of this interesting little flower by the members of the Scottish Pansy Society; and the great care in not granting first-class certificates to any but superior flowers, is an encouragement to those who are disposed to give their support to the Society. The next annual competition of the Society will be held in Glasgow in June 1860.

CLOTH OF GOLD AND ISABELLA GRAY ROSES.

As might naturally be expected (says the *Wiltshire Independent*) the controversy about the merits of these two Roses has commenced with the blooming season. The *Gardeners' Chronicle* of May 28 has a notice of the two Roses, accompanied by reports from two correspondents, one of whom has been blessed with so slight a modicum of success with the fair Isabella, that he must, indeed, be thankful for small mercies, to chronicle it; one expanded bloom, pinched by the cold, but showing unmistakeable indications of beauty, and an opening bud, being the crop of a vigorous specimen, planted in 1857! The other correspondent, a lady, has more cause for joy; her Isabella (at Torquay), in its third year, and which grew immensely last year, having now above 90 buds on it, most of which are rapidly expanding. The specimen sent to the editor of the paper just alluded to is described by him as a "nice" one—not a very glowing description of a selected bloom, sent by a lady! However, 90 buds, opening into even *nice* blooms, is something

encouraging. In each case the fact that no pruning has been allowed is dwelt on with great force, and to that circumstance is attributed the success. One of the correspondents, he whose Isabella Gray has produced one pinched bloom, and a second about to open, has also a Cloth of Gold, which has been treated in the same way as the Isabella. It, also, was planted in 1857, "grew rapidly in 1858, no pruning being allowed, and is now, in 1859, making vigorous, healthy, dark purple shoots, and will doubtless be covered with Roses by the month of July!" May it be so! But those "vigorous, healthy, dark purple shoots" are sad deceivers, too often finishing their career with blind ends, to the disgust of the disappointed grower, whether professional or amateur. The inference to be drawn from the remarks of the *Gardeners' Chronicle* itself, as well as those of its correspondents, is that "protection from the pruning knife" (coupled with age and suitable aspect) is the grand secret in getting Cloth of Gold blooms, and probably those of Isabella Grey and other yellow varieties. Perhaps it may be in the recollection of the readers of this paper that on the 10th of June, last year, a description was given of a Cloth of Gold Rose growing at the Rev. R. M. Atkinson's, on the Rectory House at Great Cheverell, on which there were two or three hundred blooms fully expanded, and a far greater number of buds ready to expand, the tree itself (worked on a yellow Banksia) being in the highest health. Now this tree, which is covered with blooms every year, having at this time (although it has suffered much, both in foliage and bloom, from the severe blight), upwards of 100 fully expanded blooms of deep yellow colour and great beauty, with twice or thrice that number ready to burst forth, is, and always has been, regularly pruned, every shoot being cut back to two or three eyes, except when it is necessary to lead in long shoots, to fill up any blank space on the wall. Another constantly blooming Cloth of Gold, in this neighbourhood, has also been always subjected to close pruning. In other cases, whether pruned or unpruned, the rule is, no blooms—the exception, a few stragglers; so that pruning no more seems to prevent free blooming than non-pruning seems to promote it. It may be recollected, too, that the account of Mr. Atkinson's Cloth of Gold, above alluded to, caused a long correspondence in this paper, on the subject, and that it was suggested by Mr. Ayres, of Orchardleigh Park, near Frome, that the most likely way to insure a free-blooming Cloth of Gold, would be to take the bud for working from immediately below a bloom. We should be glad if any correspondent who has tried the experiment will favour us with the result. And now a word about the Isabella Grey. Mr. Mould, the well-known gardener and florist, of Devizes, has this year succeeded in producing a very fine and highly coloured bloom, under glass; the bloom was of good size, perfect shape, and of exquisite fragrance. That plant had been pruned. On the other hand, on a very warm sunny wall, with south aspect, we have seen upwards of 30 strong shoots of Isabella Grey (budded on a Banksia), from one to four feet in length, unpruned, both wood and foliage a deep red, and showing the highest health, and not a single blossom bud to be seen; each one of these shoots going off with blind ends! Thus it would seem that pruning has really nothing to do with it.

BRISTOL, CLIFTON, AND WEST OF ENGLAND
ZOOLOGICAL SOCIETY.

THIS society gave their first floral fête, June 2, in the grounds of the society, Clifton. There was a very large display of horticultural productions staged. The collections of stove and greenhouse plants contained many superb specimens, as did the fine foliaged plants contributed by Mr. Bassett, the Messrs. Maule & Sons, &c. The Orchids shown by this latter firm were beautifully grown and bloomed. Azaleas, Pelargoniums, and Fuchsias, were in great profusion, and generally very creditable to the growers. The show of fruit, though not large, contained some things very superior, and we noticed a very interesting collection of cut flowers, from British plants growing in the neighbourhood, containing many rare species. Local societies would do well to encourage these exhibitions, as they promote a taste for botany (and gardening generally), and induce young people to turn collectors. The committee of this society are most anxious to do all in their power to promote and extend the usefulness of their society by liberality, and we can only hope that their efforts to promote the good of horticulture will be responded to.

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

JUNE 15.—This was an excellent show, and was very well attended. Stove and Greenhouse plants were in great perfection, and so were Cape Heaths and Pelargoniums. The only weak points were Roses in pots and Azaleas, the season for both of which was evidently over. There were, however, some charming boxfuls of cut Roses. The fruit show was an improvement on that held last week at the Crystal Palace.

Stove and Greenhouse plants were contributed by the usual exhibitors; but this time considerably the finest large collection was produced by Mr. May, gardener to J. Spode, Esq., of Hawkesyard, near Rugby. These, although they had travelled nearly 150 miles, were in excellent condition. Among them were admirable samples of *Dracophyllum* gracile loaded with compact heads of small snow-white blossoms, which are well suited for bouquets; *Allamandas*, *Dipladenia splendens* beautifully flowered, *Ixora coccinea*, *Phaenocoma proliferum* unusually well furnished with showy heads of very fine blossoms, *Stephanotis floribunda*, and *Pleroma elegans*, the last one of the very handsomest of *Melastomads*, its flowers being of the most beautiful Tyrian purple, and each of them larger than a five shilling piece. They are also more persistent than those of most of the class to which they belong. Mr. Dods, gardener to Sir J. Cathcart, Bart., and Mr. Whitbread, gardener to H. Collyer, Esq., were placed equal in point of merit. In these groups were fine specimens of the well-known *Mahernia incisa*, *Allamandas*, *Ixoras*, including the fine example of the Willow-leaved kind, to which attention was directed in our report of the Crystal Palace. This may safely be asserted to be one of the best of the genus. Its great heads of showy flowers of a brilliant orange colour stand well up

above the leaves, which are long and pendent, thus giving to the former an individuality and artistic beauty not possessed by other species of the genus. Smaller collections were furnished by Messrs. Cutbush, Fraser, Green, Rhodes, Baxendine, Peed, Chilman, Carson, and Tegg. These for the most part consisted of plants that were shown at Sydenham the previous week.

Orchids were furnished in beautiful condition; in general, however, they were very much the same as those produced at the Crystal Palace. In the Rev. Mr. Ellis's group were the handsome *Cattleya superba*, and the singular looking rather than beautiful *Uropedium Lindenii*. Mr. Bullen, gardener to J. Butler, Esq., had a splendidly flowered *Brassia* and *Anguloa Clowesi*, with no fewer than five blossoms on it, all in the greatest possible perfection. Two *Sobralias* (*macrantha* and *Galeotti*) from Mr. Woolley were admired; Mr. Dods sent a very fine *Phalenopsis*; Mr. Carson the elegant green tailed *Dendrochilum filiforme* and *Stanhopea tigrina*; and Mr. Ivison, gardener to the Duke of Northumberland at Sion, *Acineta Humboldtii* with a remarkably fine spike of pale watery looking yellow blossoms.

Among Cape Heaths, several collections of which were exhibited, were some beautiful specimens of *mutabilis*, *tricolor Wilsoni*, one of the best of its class; *obobata*, a fine old Heath; *Massoni*, small but very handsome; and different seedlings of *Hartnelli* and *aristata*.

Conspicuous among Azaleas were Ivery's Gem, a sort remarkable for fine form; and *Extrani*, the latter a lovely rosy pink kind, still finely in flower.

Of real novelty there was little. Though not absolutely new, perhaps the most striking was a charming specimen of *Cœlogyne pandurata* from Mr. Lawrence, gardener to the Bishop of Winchester. This had a fine spike of pale green flowers stained on the lip with jet black, a contrast of colours not less remarkable than pleasing. Messrs. Parker & Williams sent a white variety of *Meyenia erecta*, which promises to be a useful plant: Mr. Parsons a hybrid *Achimenes* called Dazzle, with brilliant red flowers in the way of Meteor. From Messrs E. G. Henderson came *Aucuba himalaica*, a velvety crimson-flowered variety of *Dianthus sinensis* called *Hedwigii*, and *Amphicome Emodi*, with lilac flowers stained in the throat with yellow. The *Dianthus*, to which we have just alluded, promises to be a fine thing; its blossoms measure at least two inches across. We hope, however, to see it again in better condition.

Of Miscellaneous articles, Messrs. Veitch sent *Oreopanax hypagyreum*, a noble plant with palmate leaves; *Blandfordia grandiflora* in flower, *Rhopala glaucophylla*, the violet *Tradescantia odoratissima*, and *Tacca integrifolia*, a well known plant, whose singular dark looking leafy inflorescence takes a form not unlike that of some Orchids. A fine specimen of *Eucharis amazonica* was shown by Mr. Davis, of St. John's Wood.

Ferns were shown in considerable quantity, and served to fill up odd nooks and corners with excellent effect. Among those from Mr. Carbonell were the New Zealand *Todea hymenophylloides*, the Jamaica *Hymenophyllum hirtellum*, the handsome *Gleichenia flabellata*, *dichotoma*, and a wonderfully fine *G. microphylla*.

Roses in pots, as has been stated, were much past their best. Among them, however, one—Charles Lawson—deserves notice. It is very double, something like Coupe d'Hébé, and altogether a very fine kind. Among those shown in boxes in a cut state were many fine blooms of most of the leading sorts. The best came from Mr. Mitchell, of Pilt-down, Sussex. Messrs. Paul & Francis also showed fine blooms. Conspicuous among the latter were Madame Vidot, Paul Ricaut, General Jacqueminot, Lord Raglan, Madame Willermoz, and Gloire de Dijon.

The Pelargoniums from Mr. Turner, of Slough, both fancies and ordinary kinds, were all that could be possibly wished for, both as regarded good cultivation and profusion of bloom. Mr. Dobson's were also good, as were likewise the collections from amateur growers. Of the latter the best came from Mr. Foster. Messrs. E. G. Henderson sent Imperial Crimson, a bright kind, but without what florists call form. The same firm also sent two pretty kinds suitable for bedding purposes, allied to Golden Chain. Messrs. Veitch had the very handsome spotted dwarf kind that was shown at the Crystal Palace, and from Mr. Turner and others was a fine bank of seedling florists' varieties.

Fruit was tolerably plentiful. Providence Pines weighing between 8 and 10 lbs. each came from Messrs. Young, Bailey, and Floud. The last sent the best Queen, whose weight was about 6 lbs. 5 ozs. It was well ripened and finely grown. From Messrs. Young, Bray, and Bailey also came fine fruit of this variety. An Enville, 6 lbs. 10 ozs. weight, came from Mr. Fothergill, and we noticed one or two small Jamaica's.

Grapes were good, especially black kinds. The best Black Ham-burgh came from Messrs. Thomas and Hill. The three bunches from the latter weighed together 6 lbs. Others from Messrs. Henderson, Wood, and Drewett were nearly equally good. West's St. Peter's and Black Prince, fine bunches, were furnished by Messrs. Allport, Fullerton, Turner, and Miller. Of white sorts Mr. Bailey sent excellent examples of Muscadine, and exhibitions of the same kind also came from Messrs. Jackson, Wood, Frost, and Alderson. Frontignans came from Messrs. Drewett, Bond, Parr, Standish, and Allport. Muscats were not at all good, and many of them were unripe. An exhibition marked Stillwell's Sweetwater, from Mr. Allport, appeared to be White Frontignan, and very good of its kind. Grizzly Frontignan came from Mr. Richards. "Musqué Frontignan," exhibited on this occasion, was evidently the Chasselas Musqué. It was very fine and not cracked, the only fault belonging to this Grape. The specimens in question proved, however, that under proper management it may be obtained without this defect. Vines in pots, well fruited, were shown by Mr. Hutt.

Peaches, beautiful fruit of the Violet Hâtive sort, came from Mr. Gorton and Mr. Sage; Mr. Oats sent Bellegarde; and fine fruit was also contributed by Messrs. Peacock, Miller, and Hill. The best Nectarines, Violet Hâtive, came from Messrs. Peacock and Frost. Messrs. Carmichael, Forbes, Robinson, Cox, and Hill also showed fine dishes, consisting of Elruge, Violet Hâtive, and Pitmaston Orange.

Of Cherries, both black and white, the best were again furnished by Mr. Henderson, gardener to the Duke of Sutherland, at Trentham. The sorts were Black Circassian and Elton, both large and in every way perfect. Messrs. Peacham, Marcham, and others also showed good fruit. Messrs. Lane had some finely fruited trees in pots.

Strawberries were scarcely so good as might have been expected. The best were furnished by Messrs. Clarke, Wood, and Widdowson. Among the varieties were British Queen, Sir C. Napier, Keens' Seedling, Myatt's Surprise, and Sir Harry, the last very dark coloured, which it should be when fully ripe. A new kind, named Oscar, of fine colour, received a medal.

Of Melons a great many were exhibited. The best green-fleshed sorts were Bailey's and Snow's. Mr. Bailey also sent the best scarlet-fleshed variety, Scarlet Gem.

Of Figs we noticed some good examples of Lee's Perpetual and Brown Turkey.

Among Miscellaneous Fruit were some Bananas and Apples of the French Crab variety, the latter fine specimens, as sound as the day they were gathered.

ON PERENNIAL FLOWERING PLANTS.

THE very mention of herbaceous plants reminds us of a much esteemed friend we once had, who for fifty years or more was gardener to an amiable nobleman in Dorsetshire, and who was the most successful grower of this class of plants we can call to mind. This was some fifteen years since, when the collection of plants, in a garden appropriated entirely to them, was an object of great pride to our old friend, who considered the whole race of *Verbenas*, *Petunias*, &c., as mere kickshaws, compared with his noble *Campanulas* and *Larkspurs*. The noble proprietor was much attached to horticultural pursuits, as well as to his gardener, and was therefore always anxious that he should be well informed with what was going on elsewhere, especially was he solicitous that once a year he should visit the great gardens near London and the exhibitions. Furnished by his kind-hearted employer with a skeleton plan of the environs of London, with all the principal gardens and nurseries clearly marked out on it, our worthy veteran wended his way from one sight to another, till Kew and Hampton Court, Chiswick and Ealing, the Royal Exotic and Henderson's nurseries, had all been well looked over and their contents noted (there was no Crystal Palace in those days); and therefore, when the series of visits came to an end, down again went our friend into Dorsetshire, with (it was supposed) a bag full of notes, comprising all he had seen, and all that he was to put in practice on his return home, to bring him up to the London standard of excellence. On this head, however, there was a hitch, for, in the opinion of my good neighbour (privately given me by the way), he did not consider there was so much to be picked up or learned about London as people talked of, and, after all, *his* things were quite as good as what he saw there, nay, better in some respects; for I well remember

one year, in July, I think it was in 1844, his taking me to the garden before mentioned, filled with herbaceous plants, and posting me on one particular spot, by the corner of a greenhouse, from whence the whole could be viewed at a glance; "There," says he, with an air of well merited triumph, "Did you ever see anything better than that?"—I replied, "No!" "Nor I either, and I do say there is nothing near London like it; that is all I have got to say about London gardens; Mrs. Lawrence's plants are fine, and so they are at Kew, but there's nothing out o' doors but Geraniums and Verbenas, Verbenas and Calceolarias, in every garden I went to, and I've a mind never to go so far again to see so many places all just alike."

I forget the size of this garden, but it was considerable, and filled entirely with herbaceous plants, and I know that from early spring to near Christmas there was always an interesting display; from June to October, a splendid one; and, taking variety of outline, habit and colour, into consideration, and the way they were arranged, it was certainly the best managed garden I ever saw of the kind. I could mention half-a-dozen other gardens, which, twenty years back, were resplendent with herbaceous plants, were it of any use. But this long digression must end, and take me to the subject I started with—a list of the best herbaceous plants.

LIST OF SOME OF THE MOST SHOWY GENERA OF HERBACEOUS PLANTS.

GENERA.	PRINCIPAL SPECIES.	GENERA.	PRINCIPAL SPECIES.
Achillea . .	Millefolium rubra, Ptarmica flore pleno, and tomentosa	Centaurea . .	leucantha, macrocephala, and montana
Aconitum . .	bicolor and japonicum	Cheiranthus	Marshalli and ochroleucus
Adonis . . .	vernalis	Chelone . . .	barbata, glabra, Lyoni
Ajuga . . .	genevensis	Helonias . . .	bullatus
Alstrœmeria .	aurea, pulchella, chilensis, and many others	Hemerocallis	flava and rutilans
Alyssum . . .	gemonense and saxatile	Hepatica . .	all the species and vars.
Anchusa . . .	paniculata	Hesperis . .	matronalis, flore pleno, and crimson
Anemone . . .	japonica and all the sps.	Hieracium . .	aurantiacum
Anthericum .	liliago and ramosum	Iberis . . .	sempervirens, tenoriana
Aquilegia . .	glandulosa, canadensis, and vulgaris	Iris . . .	all the species
Arabis . . .	albida and lucida	Jasione . . .	perennis
Armeria . . .	formosa	Lamium . . .	maculatum
Asclepias . .	tuberosa and others, fine for beds	Lathyrus . .	grandiflorus, latifolius, and rotundifolius
Asphodelus .	luteus and ramosus	Liatris . . .	spicata
Aster . . .	amellus, cyaneus, multiflorus, elegans, ramosus, and others	Linaria . . .	Dalmatica
Astrantia . .	major	Linum . . .	flavum, perenne, and flore pleno
Aubrietia . .	deltoidea	Lobelia . . .	all the tall species
Bellis . . .	perennis, all the varieties	Lotus . . .	corniculatus, flore pleno
Bapthallium .	salicifolium	Lupinus . . .	grandiflorus, polyphyllus and variety
Calystegia . .	sepium incarnatum	Lychnis . . .	chalcedonica, flore pleno, coronata, diurna flore pleno, fulgens, and viscaria flore pleno
Campanula . .	persicifolia, glomerata, speciosa, and all the species	Lysimachia .	verticillata
Catananche .	bicolor and cœrulea	Lythrum . .	roseum superbum and virgatum
		Macrotys . .	racemosa

GENERA.	PRINCIPAL SPECIES.	GENERA.	PRINCIPAL SPECIES.
Matricaria	. grandiflora	Saxifraga	. granulata pleno, hirsuta, pyramidalis; the low-growing species suitable for rockwork
Meconopsis	. simplicifolia (very handsome)	Scabiosa	. caucasica
Oenothera	. macrocarpa, missouriensis, speciosa superba, taraxifolia, and Frazeri	Sedum	. aizoon; the other species best suited for rockwork
Omphalodes	. verna	Sempervivum	ditto
Onosma	. taurica	Silene	. . maritimum flore pleno
Pæonia	. . all the species and varieties, including the Moutan and new varieties	Sisyrinchium	anceps, grandiflorum
Papaver	. . bracteatum and orientale	Soldago	. . virgata
Pentstemon	. argutum, purpureum, azureum, magnificum, ovatum, Seculeri, &c.	Spigelia	. . marylandica
Phlox	. . varieties too numerous to name; the most useful of all herbaceous plants; the dwarf species make pretty edgings	Spiræa	. . filipendula plena, venusta, barbata
Physostegia	. speciosa	Stachys	. . speciosa
Polemonium	. ceruleum, variegatum	Statice	. . elata, latifolia, pseud-armeria
Phyteuma	. orbiculare	Stenactis	. . speciosa
Potentilla	. formosa, Garneriana, Hopwoodiana, &c.	Teucrium	. multiflorum
Primula	. . cortusoides, vulgaris, auricula, &c.	Tritoma	. . Uvaria, media, Burchelli
Ranunculus	. aconitifolius fl. pl., amplexicaulis, acris fl. pl.	Trollius	. . europæus, giganteus
Rudbeckia	. Newmani, hirsuta	Verbascum	. multiflorum
Saponaria	. . ceymoides	Valeriana	. rubra
		Veronica	. . gentianoides, incarnata, incisa, latifolia
		Verbena	. . venosa
		Vinca	. . . all the species
		Viola	. . . ditto
		Wahlenbergia	grandiflora
		Yucca	. . . all the species

Hardy bulbs for borders, &c., in your next number.

G. F.

HORTICULTURAL EXHIBITIONS.

THE spring exhibition of the Hanoverian Band and Floral Fête Committee was held at Sydney Gardens, Bath, on May 11. We have so often had to speak in praise of the public spirit and liberality of this Committee, that, on the present occasion, we can only repeat that their arrangements were all that could be wished for, and their liberal list of prizes was responded to by a magnificent display of plants, filling several large tents. The Azaleas were certainly as fine specimens and as well done as any we have seen at the London exhibitions, and, with few exceptions, the stove and greenhouse plants were the same, while the miscellaneous classes were all most creditably represented (and in many cases could not be surpassed). The day was fine, and a large number of visitors as usual attended the fête. This society merits the good wishes of every horticulturist for the spirited manner in which it conducts its exhibitions. To Mr. Smith, the secretary our thanks are doubly due. We regret we could not find room for this last month.

FERN CLASSIFICATION.—No. VI.

THE tribe *Cyatheineæ* includes three lesser sectional groups, which are distinguished in the manner following: first, by characters derived from the covering, or absence of covering, to the sorus, and next by the arrangement of the fructification. The receptacles, it will be remembered, are always elevated, in the plants referred to this tribe.

Sori involucrate, *i. e.* with inferior cup-like indusia—

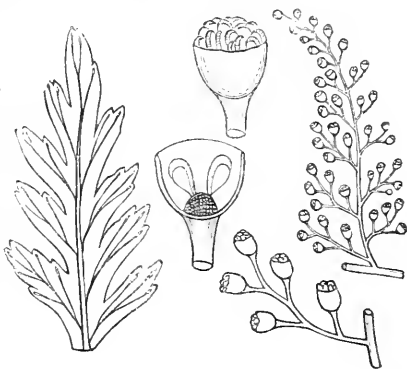
Fructifications thyrsoform §1. *Thyrsopterideæ*.

Fructifications dorsal §2. *Cyatheæ*.

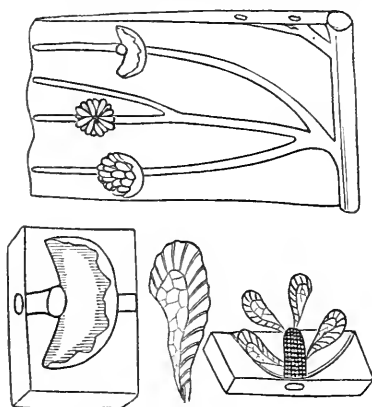
Sori naked, *i. e.* without indusia §3. *Alsophileæ*.

The *Thyrsopterideæ* are a very small group, consisting of a single genus and species, as far as yet known. This genus is *Thyrsopteris*. It is a large-growing Fern, with a short thick decumbent rhizome, and very ample much divided fronds, of which a portion, the basal pinnules of the lower pinnæ, are fertile, while the rest is sterile. In the sterile parts the ultimate divisions are small, while the fertile parts consist solely of thyrsoform collections of stalked cup-shaped involucre, containing the spore-cases, no leafy portion being produced. As in the other *Cyatheineous* plants, the spore-cases are more or less oblique laterally compressed.

The *Cyatheæ* are more normal-like than the foregoing, the fronds being all in the usual leafy condition, and bearing the sori on their under surface. These sori are in cup-like involucre, more or less perfectly formed. The involucre are much like some of those of the *Peranemecæ*, but the distinguishing feature of the *Cyatheæ* is, that in addition, the receptacles are elevated. There are but three genera referred to the present section:—*Cyathea*, in which the involucre forms a complete cup; and *Hemitelia* and *Amphicosmia*, in which the involucre are half cup-shaped, the anterior side of the cup being deficient. The two latter are distinguished by their venation,



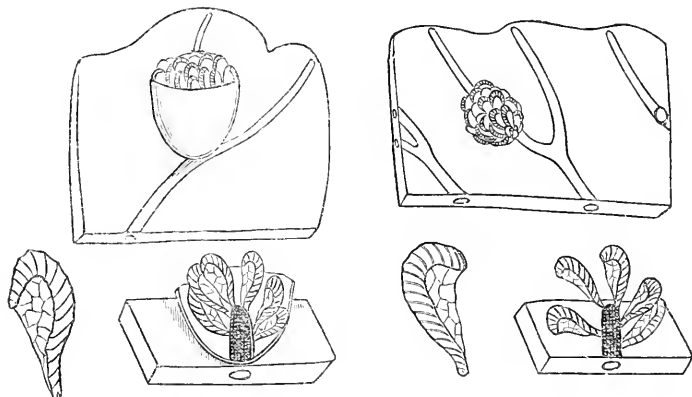
§1. THYRSOPTERIDÆ: *Thyrsopteris elegans*.



§2. CYATHEÆ: *Hemitelia speciosa*.

Hemitelia having the veins uniting in costal arcs, while those of *Amphicosmia* are free. This is one of the principal groups of Tree Ferns.

The *Alsophileæ* embrace only two genera—*Alsophila* and *Amphidesmium*, not perhaps very well distinguished, except by habit. The distinctions chiefly depended on are these, that in *Alsophila* the venules are unisoriferous (bearing one sorus), whilst in *Amphidesmium* the veins frequently bear each two or three sori. These, too, are mostly Tree Ferns, with much the aspect of the *Cyatheæ*, from which they are



22. CYATHEÆ: *Cyathea elegans*.

23. ALSOPHILÆ: *Alsophila* sp.

separated by the naked sori. The sori, being round naked heaps of spore-cases, have much resemblance to those of *Polypodium*. The distinguishing mark relied on, between these two families, is the elevated receptacle of the *Alsophileæ*, but there are cases in which this is less decidedly developed than usual, and in such cases the differences between the two groups are not to be very satisfactorily made out.

The *Schizæineæ*, those singular Ferns with the apex of the spore-case radiate-striate, are separated into two sectional groups, which contain plants of very different appearance. These are—the *Lygodieæ*, a race of scandent Ferns, and the *Schizæeæ*, which are dwarf herbaceous species. The technical differences which are adopted to distinguish them, are these:—

Spore-cases crowned by the convergent striæ of the ring, *i. e.*, radiate-striate at the apex—

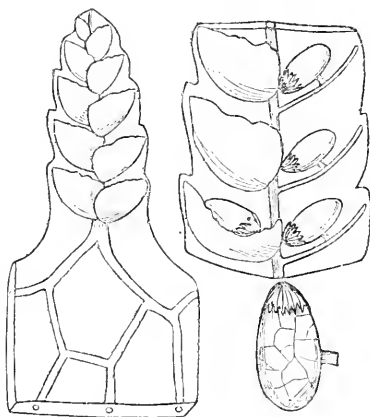
Striæ united at the apex, without vacant space; spore-cases attached laterally §1. *Lygodieæ*.

Striæ disjointed, forming an orbicular apical vacuity; spore-cases attached basally §2. *Schizæeæ*.

The *Lygodieæ* consist entirely of climbing species, very unlike other Ferns in aspect, and therefore extremely valuable in cultivation, not

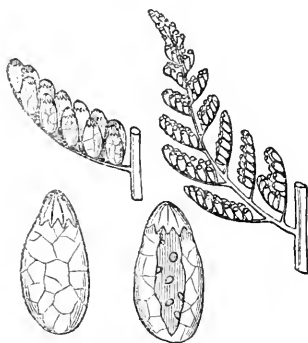
only for the variety they offer, but for their beauty. There are two genera, both represented in our gardens, and of equal interest, namely, *Lygodium*, in which the veins are all free; and *Hydroglossum*, in which they are reticulated. The lateral attachment of the spore-cases in this group is very curious.

The *Schizaceæ*, which include several genera, are very remarkable plants, quite dissimilar to other Ferns. In *Schizaea*, whose fronds can scarcely be said to have any leafy portion, but rather to consist of dichotomously branched ribs, the spore-cases occupy curious contracted pinnaform appendages, which terminate some or all of the branches.



21. LYGODIÆ: *Hydroglossum heterodoxum*.

branches. Another group, consisting of *Anemia* and *Anemidietyon*, distinguished by the former having free and the latter reticulated veins, have the fructifications paniculate, borne on distinct fronds or distinct branches, and producing the appearance of a flowering Fern. *Mohria* has the apical-ringed spore-cases scattered near the margin of the scarcely contracted plane segments of the frond; while in *Trochopteris*, a little rosulate plant, an inch or two only in diameter, and looking more like a small flattened Lichen than a Fern, the spore-cases are similarly disposed on the basal pair of lobes of the minute fronds.



22. SCHIZÆÆ: *Anemia collina*.

The foregoing descriptions and observations, embracing all the groups—Orders, Tribes, and Sections—into which Ferns are divided for the purposes of classification, aided as they are by ample illustrations, should enable intelligent students of Ferns to ascertain the group to which any particular species under examination should be referred. The further discrimination of genera, and the distinctions of species, are the next steps in following out the classification of Ferns to a practical issue.

Chelsea.

THOMAS MOORE.

Note.—The references to the engravings on pp. 106, 107, numbered 22 and 23, require to be transposed.

NOTES AND QUERIES.

OUR correspondent, Mr. Wilson, suggests a sketch, to illustrate the plan of ventilating the upper angle of span-roofed houses, in the manner recommended by our correspondent in his article on fruit houses, published last year. Unavoidable reasons have delayed our publishing wood engravings of cheap sashes and glazing, when the subject of ventilation would have been explained. We hope soon to fulfil our promise.

The article on perennials has attention this month; in the meantime, as these useful though neglected plants are now in full glory, collectors should examine the London and other nurseries, to see what is in bloom, and make their notes of time of blooming, colour of flower and height, when they will be prepared for a basis for arrangement when planting time comes. Kew should also be visited.

SECOND GRAND NATIONAL ROSE SHOW.

IF ever the Queen of Flowers should hold a court, and require a champion to proclaim her dignities, and to maintain the rightful position which she holds against all comers, there can be no doubt that she would select for that purpose—parson though he be—the Rev. Reynolds Hole, of Cauntton Manor; for to him she is indebted for the proud position which she has occupied these last two seasons, and to him, mainly do the knights and esquires of her floral majesty owe the magnificent display which was brought together on the 23rd ult., at Hanover Square Rooms; and, in truth, I for one should be very sorry to have to meet the weight of that brawny arm of his; though after the glorious assemblage that greeted one's optic and olfactory nerves there, he would be a daring man who would put forward the claims of any other flower to usurp her position. As one's eye rested on the long lines of cut flowers, relieved by the pot Roses of Messrs. Paul and Mr. Francis, one felt how nobly the Rose had claimed and held her pre-eminence, while an insight into the individual flowers clearly proclaimed that its cultivation was progressing more rapidly than one could have imagined. All misgivings, too, which I suppose most of us felt in the month of May, as we looked on the scorched and crumpled shoots of our trees, were banished, and the conclusion must be arrived at, that no matter what the season, so many and so ardent are the growers of the flower, that we are sure of a good exhibition.

That the season was a most unfavourable one up to the period of which I speak, all would agree; and though in some places the recovery during the last three weeks has been something extraordinary, yet the fact was evidenced by the absence from the show of Mr. Rivers entirely, as a non-competitor, and of Mr. Cranston, who so nobly won his spurs last year, as an exhibitor; probably another week would have made a great difference; but when the day was fixed this year, everything being in so forward a state, the arrangers of the show were justified in making it a week earlier, although perhaps, on the whole, the 1st of July is a better day. We get few such hot seasons as last in this country, and the later day enables those who live in cold and exposed situations to be more on a level with their more favoured brethren of Hertfordshire and the south.

Some idea of the general character of the show may be gathered from the fact that there were 68 stands of cut blooms, besides the two collections of pot Roses mentioned above, some of these stands containing 100 sorts, and none less than 12. As at last year's, also, these were brought from all parts of the country—the home counties, however, furnishing the chief supply; but Oxford, Nottingham, Devonshire, and Somersetshire were amongst the counties ably represented, and no difference could be seen (so well had they been taken care of), as far as freshness was concerned, between those from a distance and those near at hand; in fact, 200 miles of rail is not (if ordinary care be taken) more telling on a stand of Roses than would be 14 or 15 miles in a spring cart or coach. These stands were arranged on each side of two long tables, which went down the centre of the room; and on another, which was placed the entire length under the windows, Mr. Paul's collection of large pot Roses, being arranged in groups on one table, and Mr. Francis's collection of smaller ones being placed the whole way down the centre of the other. The post of honour, around the semicircle formed by the orchestra, was allotted to Mr. Cranston, of Hereford, whose Roses showed unmistakeably what he might have done, had the show been a little later; while the orchestra was relieved at the back by some fine exotic plants from Mr. Veitch, of Chelsea; and the rather sombre appearance of the room (as contrasted at least with St. James's Hall) was, to my mind at least, rather in favour of the blooms. On the whole the Roses were admirably set up—the Moss in one exhibitor's stand was the most perfect thing possible, while a few still were slovenly and untidy. As the list of awards will be appended to this notice, I shall not, except incidentally, notice the separate stands, but say what I think upon particular Roses, both old and new. At last year's show I said that *the* two Roses were Madame Vidot and Prince Leon; and it is a striking commentary on the effect of season upon this flower, that there were hardly any good blooms of either in the room, while General Jacqueminot, which last year was little better than a semi-double Gloire de Rosanene, was this year in every stand, very double and very brilliant. Mr. Cranston's box of it was fine; but had all Mr. Sladden, of Ash's, flowers equalled his bloom of this fine sort, he would have taken "first honours." In equally good order in all the stands was Jules Margottin, lovely in colour, good in shape, and exquisite in perfume. Colonel de Rougemont, a younger brother of Baronne Prevost, has completely put his nose out of joint, being larger and brighter in tint, though similar in colour and shape. Madame Knorr, a Perpetual Blairi No. 2, at least so it seemed in some stands, was very large and fine, the one in Mr. Cant's especially so. General Simpson in Mr. Turner's stand was very bright, and is a beautifully shaped flower. Madame Masson was good, and so was Mathurin Regnier, an improved William Griffith, brighter in colour, and if possible better shaped; Victor Trouillard, though very good, was not so much so as last year; Louise Peyronney, though in few stands, was, as it ever will be, good and striking; Triomphe de Paris, a bright crimson, was also very lovely; while Paul Dupuy will not give way to his rivals; Pauline Lanzezeur was very fine crimson with a purple shade. Among the darker colours Cardinal Patrizzi seemed

to hold the palm; though the three Prince de la Moskowas in Mr. Cant's 50 were such as I do not believe any Rose grower ever saw before; Prince Noir was also good, as was Emperor Napoleon; but the first of the four is better in shape and fuller than the other three; and in some stands was nearly black—indeed, in Hybrid Perpetuals we are fast getting to the shade of the old Tuscan Rose. Amongst Bourbons there was nothing very remarkable; Dr. Leprestre was very fine; and Souvenir de la Malmaison of course good as usual. In Teas there was nothing particularly new; Devoniensis was as usual beautiful; and Gloire de Dijon, good. A Noisette in Mr. Standish's stand, named Ledia, was very fine, the centre being a very bright yellow. In Hybrid Bourbons Charles Lawson takes almost first place, and is a magnificent flower, of the true rose colour; and Coupe d'Hebe still lays claim to being one of the most beautiful of Roses. In the Gallica class, Boule de Nanteuil was exhibited in great perfection, as was that old and fine flower Kean; a truss of Baron de Wassenauer, in Mr. Hilyer's stand was perfectly grand, having in buds or blossoms 14 or 15 in one head. So much for old Roses. New ones were of course well looked after; and there are some claimants for favour which will, I fancy, find their place in every Rose grower's hands. First and foremost stands Eugene Appert, of which 23 blooms were exhibited by Mr. Standish, of Bagshot; it was raised amongst others by Mons. Trouillard, Rose foreman to Mons. Leroy, of Angers, about the largest nurseryman in the world, and was named by him after M. Appert, M. Leroy's son-in-law; it is of the Géant class, and I am inclined to stake my Rose reputation on it, that it will be a general favourite; in colour it combines the rich velvety appearance of Victor Trouillard with the bright scarlet of Géant, very thick in the petal, while its shape is good; some of the blooms (Mr. S. said) had been out a week, and yet there was no appearance of that slatiness with which the Géant and others die. Mr. S. says it is a model of growth, and I can only say, if it be so with every one, it is the finest and best Rose yet raised; it will not be let out until the autumn, and though I do not often venture so far, I would advise no one to begrudge the half guinea at which it will be sold; its constancy there can be no doubt of, for no one could exhibit 23 blooms of a seedling, and all good ones, without its being so. I hope and believe it will soon be figured in the *Florist*. Eveque de Nîmes is a gem, brilliant crimson, beautiful rosette shape, but I rather fancy delicate in growth; Duke of Cambridge is a large rose, of bright red colour, very fine in shape; Triomphe des Beaux Arts (how these French names break the teeth of our honest John Bull gardeners) is a very fine thing, of the General Jacqueminot shade, but more double than that noble flower generally is—if, however, it comes always as this season, we shall have no reason to complain; Louis Châix was in one or two stands, very beautiful indeed, a rich bright rose colour. I do not think that any one will by and bye call me a deceiver if I recommend them to add these Roses to their collection. There was a Rose in Mr. Tiley's stand, Cecile de Chabillard, but it seemed to me a pale Mathurin Regnier.

I have thus fulfilled my task of giving some guide to Rose growers,

as to the excellence of the kinds exhibited. Perhaps one may be able to add a few observations at another time, about the sorts most shown. A report of the show would be, however, incomplete, were one not to acknowledge the great services rendered by Mr. Edwards to its success. His perfect knowledge of the whole business; his activity, energy, and extreme good nature, made him a most capital master of the ceremonies. Ah! that reminds me—there was a band! Surely this is not needed. Will not people come to look at the flowers without it? It is all very well out of doors, but such a crash and a clamour as this made was enough to break any one's tympanum. We saw on gentleman rushing about after the committee, or Mr. Hole, or any one he could get to put a stop to the row. Surely we might set the good example of doing away with it, or at any rate of having one of much less tormenting power. As Mr. Hole takes for his motto, "*Floreat regina florum*," let all Rose growers heartily thank him for the amount of time, labour, and energy he has spent on this project. Rejoice with him on the success of his plans, and give him the more homely but expressive oriental wish, "May his shadow never be less."

Deal, June 24.

D.

The following is the list of prizes above alluded to:—

Class I., Letter A. 1st Prize, Messrs. Paul and Son, of Cheshunt, with Paul Perras, Devoniensis, Jules Margottin, Pierre Jaussens, Crested Moss, Lamarque, Dr. Leprestre, Madame Laffay, Madame Place, Blairi, Triomphe d'Avranches, Solfaterre, Madeline, Souvenir d'un Ami, Madame de Manual, Transon Goubault, Raphael, Madame Pauline Labonte, Cardinal Patrizzi, Panache d'Orleans, Ohl, Narcisse, Triomphe en Beauté, Cynthia, Victor Trouillard, Brennus, Cabbage Moss, Lord Palmerston, Madame Vidot, Mrs. Rivers, Prince Leon, General Pelissier, Colonel de Rougemont, Madame Duchere, Madame Masson, Louis Peyronny, Souvenir de Leveson Gower, Duchess of Norfolk, Comtesse de Segur, Gloire de Dijon, Pauline Lanzezeur, Charles Duval, Joan of Arc, Madame Hardy, Comte Bourbet, Triomphe de Beaux Arts, Latour d'Auvergne, Paul Ricaut, Mdle. Therese Appert, Kean, Bougere, Triomphe de Paris, Laura Ramond, William Jesse, Baronne Prevost, Telemarque, Eveque de Nimes, Paul Dupuy, Adam, Bath White Moss, Cabbage Provence, Boula de Nanteuil, Baronne de Wassenaer, Madame Hector Jacquin, Duke of Cambridge, Alba, Queen of Denmark, Auguste Guinnoiseau, Lord Raglan, Gloire de Parthenay, Chenedole, Caroline de Sansal, Madame Zoutman, Madame Domage, Alba Felicite Parmentier, Gloire de Mosseuses, Souchet, Mrs. Elliott, Madame Cambaceres, Madame Willermoz, Mathurin Regnier, General Jacqueminot, Noemi, Triomphe de l'Exposition, Charles Lawson, William Griffiths, Geant des Batailles, Madame Hitz, Je me Maintendrai, Lafontaine, Louis Chaix, General Simpson, Madame Knorr, Dr. Dielthem, Dr. Juillard, General Castellane, Leon des Combats, Coupe de Hebe, Duchess of Sutherland, Souvenir de Malmaison. 2nd prize to Mr. E. P. Francis, Hertford.

Class I., Letter B. Equal 1st. Mr. Cant, Colchester—Joan of Arc, Boula de Nanteuil, La Ville de Bruxelles, Louise Chaix, Victor Trouillard, Gloire de Dijon, Prince Regent, Comte de Nanteuil, Triomphe de l'Exposition, Mathurin Regnier, Souvenir d'un Ami, Chenedole, Etendard des Amateurs, Mrs. Rivers, Gloire de Mosseuses, General Castellane, Triomphe de Paris, Ariel, Bacchus, Madame Cambaceres, Comte de Paris, Kean, Prince Leon, Pauline Lanzezeur, Madame Stolz, Paul Ricaut, Madame Bravy, Charles Lawson, Sir J. Franklin, General Jacqueminot, William Griffiths, Devoniensis, Emperor Napoleon, Colonel de Rougemont, Lafontaine, Julie, Duke of Cambridge, Madame Vidot, Prince de la Moskowa, William Jesse, Souvenir des Braves, Solfaterre, Souvenir de Leveson Gower, Caroline de Sansal, Lord Raglan, Madame Knorr, Madame Masson, Alphonse de Lamartin, Madame Heraud.—Class I., letter B. Equal

1st. Mr. Tiley, Bath—William Jesse, Madame de Cambaceres, Dupetit Thouars, P. us IX., Comte de Nanteuil, Mrs. Rivers, Jacques Latitte, William Griffiths, Madame Knorr, Devoniensis, Gloire de Vitry, Souvenir de Leveson Gower, Baronne Prevost, Reine des Fleurs, Triomphe de Paris, Geant des Batailles, General Jacqueminot, Vicomtesse de Cazes, Caroline de Sansal, Madame Phelip, General Simpson, Pauline Lanzezeur, Eveque de Nimes, Comtesse Cecile de Chabrilan, Sydonie, Jules Margottin, Souvenir de Malmaison, Madame Domage, Alexandrine Bachmeteff, Louise Olier, Mere de St. Louis, Gloire de Dijon, Noemi, Lord Raglan, Louise Peyrouny, Madame Masson, Acidalie, Duchess of Sutherland, Solfaterre, Prince Leon, Mathurin Regnier, Paul Ricaut, Auguste Mie, Mrs. Bosanquet, Lady Franklin, Cardinal Patrizzi, Triomphe de l'Exposition, Augustine Mouchelet, Madame Laffay, Madame Vidot: 2nd prize to Mr. C. Turner, Slough—Auguste Mie, Bacchus, Baronne Prevost, Cardinal Patrizzi, Caroline de Sansal, Duchess of Norfolk, Gloire de Dijon, Duchess of Sutherland, Emperor Napoleon, General Castellane, General Jacqueminot, General Pelissier, General Simpson, Glory of France, Imperatrice des Francais, Jacques Lafitte, Jules Margottin, La Reine, Lord Raglan, Leon des Combats, Madame de Cambaceres, Madame Domage, Madame Hector Jacquin, Madame Knorr, Madame Laffay, Madame Marsel, Madame Masson, Madame Vidot, Mdle. Alice Leroy, Mathurin Regnier, Maxime, Paul Dupuy, Pauline Lanzezeur, Prince Leon, Queen Victoria, Robin Hood, Souvenir de Leveson Gower, Triomphe de l'Exposition, William Griffiths, William Jesse, Triomphe de Paris, Baronne Larray, Charles Lawson, Coupe d' Hebe, Paul Ricaut, Souvenir de Malmaison, Juno, Charles Duval, Geant des Batailles, Chenedole; 3rd prize to Mr. Hollamby, Tunbridge Wells.

Class I., letter C. 1st prize to Mr. Fraser, Lea Bridge Road, with General Jacqueminot, Jules Margottin, Lord Raglan, General Castellane, Duchess of Norfolk, Louis Chaix, Colonel de Rougemont, Souvenir de Leveson Gower, Pauline Lanzezeur, Madame Heraud, William Griffiths, Madame Reemier, Devoniensis, Madame Vidot, Triomphe des Beaux Arts, Duke of Cambridge, Prince Leon, Souvenir des Braves, Mdle. Alice Leroy, Mdle. Therese Appert, Victor Trouillard, Anna Alexieff, Triomphe de l'Exposition, Due de Ossana; 2nd prize to Mr. Laing, Twickenham; 3rd, Messrs. Veitch and Son, Exeter.

Class II., letter D. 1st prize to C. M. Worthington, Esq., Caversham, near Reading—Berenice, Cynthia, Dr. Dielthem, Trauson Goubault, Colonel Coombes, Dido, Auguste Mie, Triomphe de Paris, Madame Hector Jacquin, Madame Masson, Triomphe de Beaux Arts, Madame Knorr, Madame Edward Ory, Lawrence Montmorency, Paul Ricaut, Solfaterre, Polomen, Madame Willermoz, La Quintinie, Moiret, Ophirie, Prince Leon, Triomphe de l'Exposition, Devoniensis, Coupe de Hebe, Narcisse, Leopoldine d'Beaufremont, Cornet, Jules Margottin, Belle Marie, Boula de Nanteuil, Chenedole, William Jesse, Duchess of Sutherland, Caroline de Sansal, Colonel de Rougemont, Cillet Parfait, Baronne Hallez, Comte de Paris, Pauline Lanzezeur, Gloire de Dijon, Julie d'Etanges, La Ville de Bruxelles, Passhot, Madame Breon, Emperor Napoleon, Mrs. Bosanquet, Cloth of Gold; 2nd prize to Mr. Hollingworth, Maidstone. 3rd prize to J. T. Hedge, Esq., Colchester; 4th prize to Mr. Terry, and W. G. Puller, Esq., Youngsbury, Herts.

Class II., letter E. 1st prize to Mr. Moffet, gardener to Viscount Maynard, Easter Lodge, Dunmow, Essex—Lady Stuart, Pauline Lanzezeur, Madame Vidot, Madame Domage, Paul Dupuy, William Jesse, Baronne Prevost, Madame Masson, Comtesse d'Orleans, Chenedole, Cynthia, Jules Margottin, General Jacqueminot, Duchess of Sutherland, Triomphe de Paris, Mrs. Rivers, Colonel de Rougemont, Prince Leon, Madame Place, Paul Ricaut, William Griffiths, Souvenir de Malmaison, Baronne Hallez; 2nd prize to Mr. Thomas Blake, Ware, Herts; 3rd prize to J. T. Hedge, Esq., Colchester; 4th prize to Miss Crawshaw, Caversham Park, Reading.

Class II., letter F. 1st prize to C. M. Worthington, Esq., Caversham, Reading—Duchess of Sutherland, Jules Margottin, Baronne Hallez, Colonel de Rougemont, Madame Masson, Madame Domage, Lord Raglan, Emperor Napoleon, Paul Ricaut, Cloth of Gold, Madame William, Prince Leon; 2nd prize to Mr. Plester, gardener to Mrs. Rush, Eleseham Hall; 3rd prize to the Rev. H. Helyar, Pendermer, Yeovil.

Class III., letter G. 1st prize to W. Cant, Esq., Mile End Lodge, Colchester—Boula de Nanteuil, Madame Schmidt, Prince Imperial, Caroline de Sansal, Jules Margottin, Madame Knorr, Paul Ricaut, Charles Lawson, General Jacqueminot, Gloire de Dijon, Souvenir de Malmaison, Prince Leon, Etendard des Amateurs, Souvenir d'un Ami, William Jesse, Geant des Batailles, Kean, Devoniensis, Eveque de Nimes, Pauline Lanzeur, Lord Raglan, Solfaterre, Coupe d' Hebe, General Jacqueminot; 2nd prize to Mr. Thomas Mallett, Nottingham; 3rd prize to Mr. Thomas Walker, Oxford.

Class III., letter H. 1st prize to W. Cant, Esq., Mile End Lodge, Colchester—Jules Margottin, Madame Masson, Baronne Prevost, Comte de Nanteuil, Lord Raglan, Boula de Nanteuil, Solfaterre, Coupe d' Hebe, Devoniensis, Charles Lawson, Kean, Souchet; 2nd prize to Mr. Thomas Walker, Oxford; 3rd prize to Mr. Thomas Mallett, Nottingham; 4th prize to Mr. Thirland, Oxford.

Class IV., letter I. Roses in pots. 1st prize to Messrs. Paul and Son, Cheshunt; 2nd prize to Mr. E. Francis, Hertford.

BROCCOLI.

THE following notes on this useful vegetable are taken from "Thompson's Gardener's Assistant." My own experience of the few sorts I grow shall be given in your next:—

Early Purple Cape.—This grows from a foot to eighteen inches high. Leaves nearly entire, erect, waved; veins and midrib stained purple. Heads middle-sized, compact, purplish green, the whole becoming green when boiled. Sow first and third week in May, for use in September and October. A longer succession—namely, till January—may be obtained, if required, from a sowing in the second week in June.

Green Cape.—Leaves long, narrow, veins and mid-ribs green. Head greenish, generally covered by the leaves; comes into use in October and November, from sowings in the middle of May, and in December if sown in the second week in June.

Sprouting.—A strong-growing hardy sort, from two to three feet high. Leaves spreading, much indented, of a purplish green. The head is of a deep purple; the first one close, others smaller sprout from the axils of the upper leaves. If sown in April it produces heads or sprouts fit for use in November. After the first head is cut out a succession of sprouts is produced through the winter. Near London the principal sowing is, however, made in the first or second week of May; but if the ground intended to be planted is not likely to be cleared of the previous crop in time to receive the Broccoli plants sown in the beginning of May, before they get too old in the bed, the sowing must be deferred till the end of May or beginning of June; and from these late sowings, heads or flower sprouts will come in for use in April.

Green Close-Headed.—The plants are dwarf and hardy, leaves large, waved, veins white. Heads middle-sized, growing exposed, of a greenish colour. Sown in the third week of May, it produces a succession of compact heads from November till the end of February.

Late Dwarf Purple.—Very dwarf and hardy. Leaves short, dark green, deeply indented. Heads small, conical, deep purple, becoming fit for use in May. Sow in the second or third week in May.

Danish or Late Green.—Leaves long, narrow, much undulated.

Heads tolerably large, compact, exposed, and of a greenish colour; fit for use in April and May. The hardiest and best for withstanding severe winters. Sow in the second week of May.

"*Dwarf Brown*.—Leaves dark green with white veins. Heads exposed, yellowish brown. Sown about the middle of April, it comes in for use from March till May.

"*Chappell's Large Cream-Coloured*.—A very large sort, which comes in earlier than the Portsmouth, and continues to produce throughout the winter. Sow about the middle of April and first week in May.

"*Portsmouth*.—Leaves large, broad, with white veins, spreading, but the centre ones partially cover the flower or head, which is very large, and of a buff or cream colour. It is fit for use in March and April. A hardy sort for its size, and requires to be sown in the first or second week in May.

"*Sulphur*.—Leaves with long stalks. Heads large, compact, somewhat conical, sulphur-coloured, sometimes tinged with purple. A hardy sort, in use in April and May. Sow in second or third week in May.

"*Mitchell's Ne Plus Ultra*.—Hardy and of dwarf habit. Leaves smooth, glaucous, protecting the head, which is large, compact, cream-coloured. Sow middle of March and middle of April.

"*Grange's Early Cauliflower Broccoli*.—This is the earliest of the white kinds, forming a succession to the late crop of Cauliflowers. Sown in the first and third weeks of May, beautiful heads will be produced in October, November, and December. In the southern part of the kingdom it may be sown in June for use in January; but it is better to trust to a hardier sort for a supply at that period of the season.

"*Cock's Early White*.—This is a very excellent sort for autumn use. A small sowing should be made about the 1st of May, and the principal sowing about the 10th of that month.

"*Gillespie's White*.—A fine early autumn sort. Sow first week of May and June.

"*Early White*.—Plants tall, with erect dark green leaves, which are nearly entire. Heads close in texture, and of a very white colour. Season—November, December, and January.

"*Hammond's White Cape*.—This is a fine white autumn sort, but may be obtained in long succession if sown in April, and monthly till June; or it may be had at all seasons if treated the same as the Walcheren Cauliflower.

"*Steward's Early White*.—A sort much esteemed about Edinburgh. Sow first week in May, or, in the north, in the third week in April, for produce in December and January.

"*Adams' Superb Early White*.—A good autumn sort. Sow middle of April and first week in May.

"*Snow's Superb White Winter Broccoli*.—Dwarf habit; leaves broad, with short petioles. Heads rather large, very compact, well protected with leaves, white and equal in quality to those of the Cauliflower. Sow early in March, first week in May, and middle of June; the produce will be fit for use in November, December, January, and March. If sown in the middle of August, protected if the weather should be severe, and planted out early in spring, they will come in

to succeed the spring Cauliflowers. Many prefer this sort to Grange's Early Cauliflower Broccoli.

"*White Cape*.—This forms compact heads of medium size. If sown in April and May, it is in season throughout January and February.

"*Spring White*.—Leaves large, with thick white veins, encompassing the head so as to render it invisible when fit to cut. The head is of medium size, very white, and is fit for use in April and May. Sow third week in April.

"*Cock's Late White*.—A fine close-headed late sort, coming in for use in February and March. The leaf-stalks are somewhat twisted, like those of Knight's Protecting, and, consequently, protect the head. Sow first week in May.

"*Knight's Protecting*.—Amongst the hardiest of the white sorts, and excellent when it can be obtained true; but it is apt to degenerate. The leaf-stalks are peculiarly twisted, so as to encompass and protect the head, which is very large and white. Sow in the third week in April and second week in May.

"*Melville's Superior Late White* is a good hardy late sort. The writer of the calendar in the *Gardeners' Chronicle*, 1847, p. 471, states, that it was the only kind he saved the previous severe winter without losing a single plant.

"*Elletson's Gigantic Late White*.—Stem short; head very large and fine; fit for use in May and June. Sow middle or end of April.

"*Miller's Late White*.—This is an old variety; but is considered by some to be the best late sort, if it can be obtained true. It is hardy, and requires to be planted early. Sow middle of April.

"*Willcove Broccoli*.—This is a good very late dwarf, and comparatively hardy variety, affording a supply till Cauliflowers come in. It derives its name from a small village near Devonport, noted for the last forty years for producing the latest Broccoli, and where this variety is said to be grown in great perfection.

"*Ward's Superb Late White*.—A new sort, stated to be as large and as white as a Cauliflower. Sow in the end of April.

"The varieties above noticed are too numerous; but some may wish to try different sorts, in order to ascertain which best suits their soil, climate, and demand."

Putney Heath.

J. S.

BRITISH POMOLOGICAL SOCIETY.

JUNE 23.—The prize offered by this society for the best collection of Strawberries, with foliage and flowers, was awarded to Mr. C. Turner, Slough, for a well-arranged collection of 24 varieties, namely:—Oscar, large, rich deep colour, a firm fruit, of excellent flavour; British Queen and Carolina superba, these two kinds maintained their position as first-class varieties, for delicious flavour; Sir Charles Napier, very large and handsome fruit, a little acid, and yet a most desirable Strawberry; Wonderful, a long large fruit, of average flavour, rich colour, said to be a great cropper; Adair and Nimrod, handsome deep-coloured fruit,

poor flavour, and considered to be alike—the same was considered by the meeting to be the case with Omar Pacha and Rival Queen, but both much inferior to British Queen; Filbert Pine, not large, but fine quality and flavour—the same may be said of Prince of Wales; Doubleday's No. 2 and 3 possessed considerable merit, but not sufficiently good or distinct—No. 3 is very large and showy; Elton Pine, Keens' Seedling, Rivers' Eliza, Cinquefolia, Hooper's Seedling, and Sir Harry, fine; Surprise and Admiral Dundas, both large, but of indifferent flavour; Black Prince, Incomparable, and Nicholson's May Queen, comprised the collection; the two last by far the worst, and of no value. The four best would be British Queen, Oscar, Carolina superba, and Sir Charles Napier.

Three varieties were exhibited for the prize offered for the best seedling. It was awarded to Mr. S. Bradley, Elton Manor, Notts, for Oscar, above described; it was stated to be an excellent grower, and one of the very best kinds for travelling.

CALENDAR FOR THE MONTH.

Azaleas and Camellias.—All the early started plants in this class will have made their growth, and have formed their bloom buds for next year. More light and air will be necessary, and less water to free growing plants, to ensure a good set. A portion of the earliest plants may be placed out of doors, choosing a rather shady situation, and one protected from the wind. Young plants growing on for specimens may now be shifted again, and kept close in frames, to make them start afresh.

Carnations and Picotees.—There promises to be this season a very fine show of bloom, and likewise early. Careful watering must be observed, as it tends to prolong the duration of the bloom. Protect the flowers from the scorching sun and from wet. Should the method of piping be adopted as a means of increasing stock, the sooner it is attended to the better, otherwise, layering will be a better plan.

Cinerarias.—Let us suppose Cinerarias to be now cut down and placed in a cool shady situation, where they will shortly break up, and give suckers, which may be taken off as soon as they attain the length of an inch. Prepare the cuttings, and place them round the edges of pots or pans, in a nice sandy compost; keeping them close for a few days will insure their rooting. Give air gradually, and pot off as ready into a nice loose compost, composed of turfy loam and leaf-mould. Sow seeds in a cool frame or shady situation. Prick off as soon as large enough to handle into pans or small pots, according to convenience. Prepare soils as advised last month, and turn occasionally, to sweeten, which is indispensable for the health of the plants.

Cold Frames.—See our last notice, to which add Achimenes, which may be brought forward nicely in frames, as also Lycopods and Ferns, if kept shaded and damp.

Conservatory.—The roof, unless well covered with climbing plants, will require shading each sunny day; this, however, should be removed

early in the afternoon, and as much air given as is possible, to induce a sturdy growth in the permanent plants. Well wash the trees overhead frequently, and also attend well to the inside borders. Air will be given all night, except during high winds, or any stormy weather.

Cucumbers, &c.—During very hot weather, Cucumbers should be kept shaded from the midday sun, to prevent the fruit from becoming bitter, which is apt to be the case during the hot season, particularly should the border get dry. Tomatoes should be trained to walls, and stopped when they have shown fruit enough. Water freely ridge Cucumbers and Vegetable Marrows during dry weather.

Dahlias.—Watering, mulching, and keeping down insects, will all help to make these grow luxuriantly. The first and great point towards success is to grow a fine plant, after which skill and judgment in thinning must be brought to bear; and nothing but close observation will accomplish this, as scarcely two varieties require precisely the same treatment.

Flower Garden.—The principal work to be done in this department will be merely of a routine character—tying, pegging, pruning, and training, everything in its way. As the edging of flower beds is now very generally adopted, these, to be effective, should be kept very neat and regular. Watering will be required to most things until they have covered the ground. Pinch off the blooms when you don't want a very early display, until the plants are well established, when the bloom will be more uniform and regular. Hardy Biennials and Perennials sown this spring may now be pricked out into nursery beds, to remain for the present. Keep hedges neatly cut, and the Grass and gravel in good order; then an air of high keeping may pervade the whole.

Fruit (hardy).—Nothing more can be done to wall trees, beyond what we stated in our last. Protect Strawberries and bush fruit from birds. Strawberry runners should at once be laid into small pots for forcing and after planting. Strawberries will require very liberal waterings; and, on dry soils, Raspberries and bush fruits will be much benefited by mulching over the surface, between the plants, and a portion of the summer's wood cut away immediately after gathering the fruit, if not before.

Kitchen Garden.—The crops of autumn Greens and Broccoli should be planted as quickly as the ground can be got ready. All the Kales (including of course the Cottager's), Brussels Sprouts, and Savoy, require to be in early. As these crops will generally follow early Peas or Potatoes, and supposing the ground manured for them, no further preparation will be necessary, beyond digging the land over. A good breadth of Endive may now be sown, and also successional crops of Lettuces, Spinach, Radishes, and Carrots, to draw young. The main crop of winter Turnips should now be sown. Snowball and Early Mousetail and Stone are the best garden varieties. The last crop of Peas may now be sown, using any good early sorts, and also French Beans, and a row or two of the Mazagan or Dwarf Bush, and Broad Beans for the chance of a few in October. Celery planting should be followed up at every opportunity. Cauliflowers and Walcheren Broccoli

may also be planted, and the last sowing to come in this year should be sown at once; we prefer the Walcheren Broccoli and Stalholder Cauliflower for this sowing. Water must be given liberally whenever the ground becomes dry, or make use of irrigation when practicable, on which a very excellent paper was published in the *Florist* last year.

Melons.—The more light and air Melons can be supplied with during the period of ripening, the higher will be their flavour. Shading such plants as the Melon is decidedly bad practice, but constant attention to a uniform root action, by keeping a moderate bottom heat, is indispensable. The soil in which they grow should be moist, but not wet. Give water "a little and often," to avoid the extremes of wet and dryness, which would be fatal to the crop. Should red spider attack the foliage, wash the interior sides of the pit or frame with a little sulphur. There is still time to plant for the latest crop.

Peach-house.—As the fruit is cleared, go over the trees, and remove any useless wood not required for bearing next year. The trees should be kept well washed every morning, to keep down insects, and have a large supply of air, to assist in ripening the wood. If the trees are young, or are making too strong wood, keep the border quite dry; on the contrary, weak trees, or which have been overcropped, should have waterings of manure water applied two or three times *during* the next two months.

Pelargoniums.—After flowering, let the plants be exposed to the sun and air, to cause the wood to well ripen before being cut down. Fumigate freely to destroy aphids, which adheres strongly to them. Cuttings put in now will strike freely out of doors in a sheltered situation, in a mixture of light sandy soil. The fancy varieties should be struck in pots, and kept in a cool house for a time, giving a little fire-heat. Compost should now be prepared for autumn use.

Pinery.—The plants for producing winter fruit should now be showing fruit, and will require plenty of air, to get the shows up strong. The first batch of plants to fruit next season early should now be sufficiently advanced to be potted into fruiting pots. Pot on successions as they require it; also the suckers taken from the present season's stools.

Pinks and Pansies.—Propagate these by the usual method of pipings; the latter will require a shady border, but Pinks do best on a slight hot-bed.

Vinery.—When the fruit is all cleared from the early house, let the foliage be kept well washed daily, and every means taken to keep the leaves healthy, as long as possible, to invigorate the Vines for another season. The inside borders, if become dry, should also be watered, taking proper care of the foliage. Vines, though early forced, may be kept in a good productive state for many years. We, last season, took up the Vines in a house which had produced ripe Grapes the first week in May, for twenty consecutive years. Attend to late Grapes, by thinning those not yet set, and other points of treatment. Outside borders, after the late dry weather, may require water, but all will depend on the composition.



Eugene Appert.
Plate 154

ROSE, EUGENE APPERT.

[PLATE 154.]

FOR the following account of this beautiful Rose, prefaced by a few well-timed remarks on the late great National exhibition of this Queen of flowers in the Hanover Square Rooms, we are indebted to our excellent correspondent, "S. R. H." He says:—

It may interest some readers of the *Florist* to have details of the development of a "*National Rose Show*" from one who has watched it "behind the scenes." Well then, when even Regent Street is still, and all its costly stores are barred and shuttered, there comes at sunrise, to the Square of Hanover, a hansom cab, which, stopping at "the rooms," sets down, to the especial gladness of its horse, a "Géant" secretary, a gardener "of robust habit," Rose-boxes and carpet bags galore. The bell is answered by a porter, who, doubtless, wishes the exhibition at Jerusalem, and murmurs to himself "The Rose be blowed," as he pilots the secretary through the dark passages, where forms are standing upon each other without any ceremony, and up the darker staircase to *the* room. There the new light of day reveals to the rejoicing Rose-grower that his stanch and faithful ally, Mr. Edwards, has all in readiness the lists set out for the tournament, and the course in excellent order for the race, and that he has, in consequence, nothing to do but to unpack his stationery in the room appropriated to him, to take a look at his Roses (a very brief one, for the day is too early for his midland garden), and then to await the arrival of his friends. They do not keep him long in suspense. Before six o'clock, two tilted waggons, which have travelled through the summer's night from the grand gardens of Hertfordshire, stand at the portals, ready to unload; and as the covering, which has screened those dainty passengers from wind and dust, is opened, you may see two such collections of Roses in pots, as make the eyes sparkle and the nose rejoice. To what shall we compare them? They might be a bevy of beautiful Sabine girls, decked in their festival attire, and hiding in a corner from the Romans; but the latter, you see, have discovered them at last, and bear them away ruthlessly.

And, now, light wain and cart and cab arrive in quick succession. The cry is still they come. Enthusiastic amateurs, who have been up all night, heavy of eye, and hairy of lip, longing for bath and razor, but longing still more to see how their Roses have travelled, and as anxious about each individual bloom as though it were their first-born babe. And, smiling at their earnestness, "old hands" and men of business, taught by defeat as well as by victory, and by the vicissitudes of a hundred fights, not to be over confident or over careful. Yes, they smile, well pleased to see in others the zeal which they have known and lost, and I verily believe would give up all their experience, all their medals and their cups, to feel once more in their fulness the first ambitions of youth.

But there is no time now for scrutiny of others, or surmise as to their thoughts, for the boxes are unlocked, or unhooked (as *the case* may be),

and all are bending anxiously and fondly over their treasures. Alas! that "*Gallica*," so large in form, so resplendent in colour, when we placed it carefully in its tube, and said, with a sigh, "if it will but carry." Behold it *quantum mutata*! What a restless, feverish night it must have had, staring about it with that great green "eye," and tossing off its clothes, its foliage I mean, all over the box. Don't talk to me about "*Kean*," or "*Shakspeare*," no Rose with either name would ever show itself in such undress when just about to be "*staged*." Ah, here's another disappointment! That beautiful bud of some delicate *Noisette* or *Tea*, which we trusted would expand *en route* to the show, looks more hard-headed than ever, and though we blew into it for a fortnight, would not display its charms. There, you have broken two petals with that ivory implement, and have spoilt your Rose. You may play tricks, my friends, with some of her subjects, but not with the Queen of flowers, so keep your breath for wiser purposes than the attempt to amplify her beauty, and look among your spare Roses for a successor to that unhappy piece of immaturity.

And, now, all is arranged. The Rose-grower, with an artist's eye, and with a lady's finger (for those large sunburnt hands of his ever touch a Rose with reverent care and tenderness), has made the most of his flowers, and, stepping back a pace or two, surveys them, well content. Nothing now remains but to "stage" them, and he has long since selected a delightful place, cool, but with a good light upon it. Away he goes, bearing his Roses before him, and meets about a score of his brethren, who have made the same judicious choice of a suitable site for their flowers. It is plain that all cannot have it, unless the boxes are piled one upon the other, and as this might take from the beauty of the exhibition, away they go to the secretary. Behold them crowding around him, carrying their Roses in front, as though they were jewellers, bringing their choicest cases for inspection. And assuredly in his, the secretary's, eyes never were gems so bright and beautiful. A glorious display, but—"What will he do with it?" All is confusion, and yet, in a quarter of an hour, the censors will be here. The tall official, beset by the exhibitors, like a Giraffe run down by bloodhounds, is just beginning to despair, when his trusty knight, Sir John, makes a *sharp sally* to the rescue, and lo! the disputants disperse—letter H. no longer insists on showing his 12 varieties with letter A's 100, but goes quietly off to the place assigned to him, and all ere long is peace.

Peace, and order, and perfect beauty! Oftimes has that spacious room, roused from its normal dreariness (and it is not a cheery chamber, I can tell you, to tread alone at four in the morning), but transformed into a scene of life and brilliance, but never saw such loveliness as this; for

"Never yet since, high in Paradise,
O'er the four rivers the first Roses blew,"

has the Queen of the Flowers held such a Court. The Pope himself, *Pius IX.*, *H.P.*, attended by *Cardinal Patrizzi* and the *Bishops of Nimes* and of *Meaux*; the old *Queen of Denmark*, blushing with righteous anger to hear that one of the new Perpetuals has coolly

usurped her title ; *the Queen of the Belgians* ; our own dear sovereign Lady, *Queen Victoria* ; the *Empress Eugenie* (bright red, fine form, and full, according to the catalogues), and near her, of course, the *Emperor Napoleon*, very sanguinary in aspect, but still looking rather small in the society of *Charlemagne* and *Frederic the 2nd* ; and all around Princesses and Princes, Marshals, Dukes, and Duchesses, Generals, and Poets, and Painters—the beauty and the brains of the world ! Yet here hath pride no place : *Homer* and *Shakspeare* converse with *William Lobb* ; and the *Mother of St. Louis* shrinks not from the side of *Bacchus*.

Now, what must have been the feelings of a bashful young Rose suddenly introduced into such an august society ? Young ladies at their first ball, young gentlemen in their first tailed-coat, may form some feeble conjecture—feeble, because *they* have had some previous knowledge of the world ; but in the case to which I refer there existed no such experience. No, it is a fact that Master *Eugene Appert* had actually *never left the nursery* until his worthy guardian, Mr. Standish, introduced him, with many a kind word of praise and encouragement, into the midst of this dazzling scene, this glorious *assemblage des Beutes*. Well might he petition for that place in an obscure corner of the room, from which he never stirred throughout the day, blushing vividly in his nervous excitement, and longing but not daring to speak to those lovely ladies in white* close to him, resting gracefully upon their mossy couch, after their long journey from pleasant Devon.

And who shall attempt to describe his painful state of trepidation, when, wishing that, if it were possible, he might sink into his tube of zinc, and be for ever hidden, he saw the censors draw near to scrutinise ? Or who, on the other hand, shall essay to tell of all his pride and ecstasy, when kindly words of recognition and of praise were spoken pleasantly to his listening ear, when he heard the judges say that they knew his papa, the celebrated *Geant des Batailles* : that they were intimately acquainted with his dear old French master, *M. Victor Trouillard*, and had recently seen his near relations, his sisters, *Alice Leroy*, *Rebecca*, and *Stephanie Beauharnais* ; his brothers *Patrizzi*, *Francois Arago* and *Francois Premier*, and his uncle, *Doctor Bretonneau*. How must his delight have culminated and overflowed, when they expressed their positive opinion that he would prove himself “a better man than his father ;” declared him to be “a decided addition to the Rosarium,” and finally inscribed upon a card above him, “Much admired and approved by the censors.”

Eugene Appert (to leave off metaphor) is a very beautiful new Rose, raised by M. Victor Trouillard, and having much of the gorgeous colouring which enriches the flower of that name. To those who saw the three blooms of *Victor Trouillard*, in the collection of Mr. Cant, of Colchester, at the National Rose Show, this resemblance will sound as no mean compliment ; but we may, I think, indulge in still higher eulogy, and assert, that both in arrangement of its petals, in the beauty of its foliage, and the robust healthfulness of its vigorous growth, the Rose *Eugene Appert* is superior to *Victor Trouillard*. This combina-

* Mr. Veitch's box of *Devoniensis*.

tion of strength and beauty is to be especially commended at a time when so many of our new Roses are sadly defective in constitution—like dolls, beautiful in face, but with nothing to support their bodies of bran but those thin, distorted rickety legs, which cannot be induced to stand at any price. But *Eugene Appert* is hale as handsome, not glowing with that hectic flush which foretells a rapid decline, but with the enduring bloom of perfect health—health which keeps the flowers beautiful for some days after they have been severed from the tree, and this makes the Rose especially valuable to those who grow for exhibition.

S. R. H.

STRAWBERRIES.

THE Strawberry crop here has been abundant, and the fruit generally has been fine. Of the new Strawberries, the following is a true description, and may be depended upon.

Belle Bordelaise, raised from the old Hautbois, and like it in leaf, fruit, and flavour, is quite excellent. The plants were sent to me on the 26th of April, by Mons. F. Gloede, arriving here some days later; and though planted in a discourteous spring, the fruit was ripe, under a south wall, in the first week in June. I think it will supersede the old Hautbois, of which I have had a good crop of fair sized and delicious fruit. The Bicton Pine, called also Barnes' Large White, of amber colour, is an acquisition, and of nice flavour. This, though sent at the same time, ripened a fortnight later, in the centre of the garden. The Black Hautbois, sent at the same time, has also produced a few berries of very dark hue, and of good flavour. Of Rivers' Eliza, sent to me by Mr. Rivers, and also by Mons. F. Gloede, I saved a few berries, and I think it will, when known, become a great favourite. Its form, habit, flavour, and quality are very good. The plant is vigorous, and when deeply rooted, will be a great cropper. Ananias Lecoq Pine, of a peculiar flavour, is a robust plant, and heavy cropper. The fruit is large, and the flesh solid; it is the best winterer of any here. I had a fine dish of it at my annual Strawberry entertainment on Friday, the 8th July, which was much admired for its size and deep red colour. Madame Vilmorin (Gloede), of the Queen race and flavour, is a vigorous plant, but shy bearer. Her fruit is very large and delicious, yet softer than the Queen. The dense green colour of the foliage is very striking. These Strawberries I shall increase, and cast off Adair and Cremont's Perpetual, both heavy croppers and both good forcers.

The other twenty-five varieties sent me by Monsieur F. Gloede I disfruited, and shall not be able to speak of them till this time next year.

Filbert Pine I tasted at Mr. May's at Blandford, and I considered it of excellent flavour. Cinquefolia I saw during his absence, but did not taste it; he and Mr. Hector say it is very good; the berries of it were very large, and of an oblong-round form. Nimrod I tasted there, and thought it better than many. The British Queen (leaving out the Hautbois tribes) is still the best. I have had good crops on my two and three years old plants, and the fruit was of large size. Mr. May's

crop of her on two years old plants, both for size and quantity, was wonderful. The leaves of the plants were tied back to let in the sun, and the heavy crop of fruit was suspended on lines of string, which is the best way to colour her to her tips. Bricks, slates, and glass burn the stems and calyx. Evidently the Queen, where properly cultivated, is one of the best croppers. She likes strong and highly manured land, deeply trenched. Mr. Tatchell Bullen, who lives below Bridport, told me, that in his strong ground, the British Queen grew into large bushes, and cropped wonderfully. I have had one of my large plants photographed by Mr. Rogers of Blandford. The plant had 278 berries, the greater part of which were ripe, and some over ripe. I believe it to be Keens' Seedling, though, from the pubescence of its stems and the height and size of the plant, Mr. Ingram thinks it is not. I have fifteen ranks of it, two feet apart, and, when Viscount Curzon was here to see my Roses, he counted the stems of one plant, and found it had twenty-five. The plants are two years old, and were planted with peat charcoal. The portrait of the plant was taken by the expressed wish of my kind friend, Monsieur F. Gloede, for whom it is designed, on his arrival at Rushton.

W. F. RADCLYFFE.

NOTES, QUERIES, AND ANSWERS.

IN reply to "Grape Grower"—Budding Vines is no modern practice; our recollection of its being practised goes back 25 years. Vines may be budded from this season to March next, with the almost certainty of their producing fruit from the same buds next season, provided the buds are sufficiently ripened when inserted, and the stock is headed back, to give them a fair chance. The operation requires great nicety, as you must insert a part of the wood with the eye, and cut a corresponding piece of the bark of the stock to insert the bud, taking great care that the eye inserted fits very closely the incision made to receive it. Our plan is to take a piece of the wood containing the eye to be budded, with about a quarter of an inch of wood above and below the eye, split the wood down the middle, make the cut smooth, and square the ends. We then cut a corresponding piece out of the bark of the stock, which must be done very cleanly, so as not to rupture the bark; then fit in the eye, and bind up closely with gummed tape or matting, using a little clay or not, as you please. If the stock at the time of budding can be partly cut back it will assist the buds taking, which in ordinary cases, and on young stocks, will soon be the case. We have found the best stocks to be the West's St. Peter's, Hamburgh, Black Damascus, Barbarossa, or, indeed, any strong vigorous growing Vine, excepting the Cannon Hall, on which we could never make buds take well. Budding Vines in a similar manner to Roses we never saw practised, nor do we think it practicable, but the plan detailed is simple and safe. We should say a well ripened bud, inserted now or in September, on a healthy stock, and the top cut down to the eyes next winter, would produce fruit next autumn to a certainty.

Raspberries.—My Raspberry canes last year died back fully one-third, and I have a very inferior crop. What am I to do? R.—Your Raspberries, like many others, were attacked by mildew; as a preventive for another season, thin out the old wood at once, and wash the present year's canes with the *Gishurst Compound* advertised in our columns, dissolving 2 oz. to the gallon of water, and syringe them over two or three times at intervals of a week between; a strong solution of soap-suds mixed with sulphur would do—the former is preferable. The disease has been very general this year.

Broccoli.—I should very much reduce the list of Broccolies in your last. Had I the privilege of recommending I should say the following would answer every purpose:—*Purple, white, and pink Cape*. Sow in May and June where they are to stand; season, October to Christmas. *Snow's Winter*. Sow in April and May, earlier north of the Trent; will last from November to February, and even March, and is unequalled. *Frogmore Protecting* (true). Sow as above; lasts from February to April; the best of its season. *Dalmeny*. The largest and most compact Broccoli for the season; March, April, and May. Mitchell's hardy Cauliflower will succeed this in May.

Cloth of Gold Rose.—In reference to the pruning or non-pruning of this Rose producing blooms, I may observe that last year I budded a strong-growing Bourbon Rose, which had been planted at the end of my house by mistake, with a score of buds of this Rose, every one of which has produced a truss of bloom, on shoots not more than five or six inches long. Whether this is to be attributed to the kind of stock or the warm aspect (south-east), or the dry nature of the soil, your readers must decide. I have the same results with Lamarque.

TUNBRIDGE WELLS HORTICUTURAL FETE.

THIS exhibition, which took place in July, was honoured by the presence of the ex-Queen of the French, and other members of the late royal family of France, including the Duc d'Aumale, the Comte d'Eu, &c.; and, the day being remarkably fine, was attended by between 4000 and 5000 visitors. The plants were staged in a large tent in the grounds of the Calverley Park Hotel; the band of the Royal Artillery attended, and the scene was a very gay one. At eleven o'clock the tents were cleared, and the adjudication began, the judges being the Rev. H. H. Dombrain of Deal, and Mr. Cox, gardener to W. Wells, Esq., Redleaf.

The plants exhibited on the occasion would, we hesitate not to say, not have disgraced the exhibitions at the Crystal Palace, or the Regent's Park. In floricultural language, nothing could have been better "done" than some of those which obtained the chief prize, in Mr. McMurdo's collection, especially the *Allamanda cathartica*, and *Stephanotis floribunda*, which were very fine, while the Vincas of Mr. Reed were a model of good growth. In the collection of six greenhouse and stove plants there was in those which obtained the first prize a beautifully bloomed plant of *Ixora coccinea*, while the *Medinilla* of Alderman

Salomons was greatly and deservedly admired. It was too late in the season for Pelargoniums, but the winning lot, both of florist and fancy varieties, was exceedingly well bloomed, and the smallness of the pots in which they were grown fully entitled them to the place of honour which they held. The variegated and handsome foliaged plants were all that could be desired, and those who had the arrangement of the tent did well to place them in the position which they occupied. Besides these exhibited for competition, a very large number of plants were forwarded by Mr. Reed, Mr. Alderman Salomons, and the Rev. Geo. Goldney: the Balsams of the latter were fine, as were the Verbenas, among which was a promising seedling. A very large collection of cut Roses was exhibited by Mr. Hollamby, and a smaller one by Mr. Mitchell; amongst them were excellent blooms of General Jacqueminot, Prince Leon, Cardinal Patrizzi, Triomphe des Beaux Arts, and indeed most of the leading varieties. The fruit was decidedly poor, and the offer of a five guinea prize for a collection of six varieties ought to have brought together a much larger and better selection.

We would venture to suggest to those gentlemen who have the management of the show that they do not give quite encouragement enough to amateurs and owners of small gardens and greenhouses. Very few people can get together such plants as Mr. Reed or McMurdo exhibited, and therefore we think that if prizes were awarded for Balsams, cut Roses, Verbenas, &c., &c., they would have many more exhibitors, and a wider interest taken in the success of the society. As it is, it seems to rest on the exertions of some eight or nine persons, as far as the exhibition of plants is concerned. In such a neighbourhood as Tunbridge Wells this ought not to be. Let there be a wider basis (a more liberal one there cannot be), and we venture to say success will attend the effort. To the Rev. Geo. Goldney we feel the thanks of all interested in it are greatly due; to his indefatigable industry and zeal the immense success which was achieved was in a great measure due. Those who know nothing of these things are little aware what a tax it is upon the time and means of any one who undertakes it; so "*palmam qui meruit, ferat.*"

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

JULY 6.—This, the society's last exhibition for the present season, took place under the most favourable circumstances—the weather was fine, plants fresh for July, and fruit in abundance. The company, including royalty, was both numerous and fashionable. The society has just concluded the most successful season it has experienced, with the exception of 1851. It is also the first year since the establishment of this society that the three annual exhibitions have taken place without even a passing shower.

Mr. Whitbread, gardener to H. Collyer, Esq., showed as usual a beautiful collection of 16 stove and greenhouse plants, all large, and for the most part well flowered. Among them were *Rondeletia speciosa*,

Dracophyllum gracile, *Phænocoma proliferum*, immense bushes of *Ixora javanica* and *coccinea*, *Dipladenia crassinoda*, *Pleroma elegans*, one of the very handsomest of autumn blooming greenhouse plants, its beautiful deep purple blossoms, each as large and round as a five-shilling piece, being very conspicuous. The same exhibitor also sent handsome plants of *Erica obbata*, *Leschenaultias*, *Vincas*, and *Roella ciliata*, whose flowers though pretty are ill set off by the foliage, which is rusty and dead looking. Mr. May, gardener to J. Spode, Esq., again showed a charming group of 16 plants, some of which had, however, this time suffered a little from travelling; nevertheless, others as *Ixora crocata* and *javanica*, *Dipladenia splendens* and *crassinoda*, *Pleroma elegans*, *Phænocoma proliferum*, *Aphelexis sesamoides*, some Cape Heaths, and *Statice imbricata*, were all that could be desired. The same excellent cultivator also sent a charming specimen of the white-flowered *Ixora*, quite a cone of blossoms from top to bottom. Among plants from Mr. Peed, who also showed in this class, were admirable examples of *Erica mutabilis*, *Dipladenia crassinoda*, *Vincas*, yellow and white-flowered Cape Heaths, an *Azalea* still in good condition, *Everlastings*, the white and Java *Ixoras*, *Cyrtoceras reflexum*, and the white *Dracophyllum gracile*. In a group of 16 from Mr. Rhodes, chiefly small plants, were pretty specimens of *Pleroma*, *Kalosanthus*, *Cyrtoceras*, *Allamandas*, and the seldom seen *Bartonia ericoides*.

Smaller collections of stove and greenhouse plants were furnished by Messrs. Cutbush, Fraser, Green, Page, Baxendine, and Chilman. These consisted chiefly of *Vincas*, *Everlastings*, *Clerodendrons*, *Stephanotis*, *Allamandas*, *Dipladenias*, *Rhynchospermums*, *Heaths*, *Tetratheca verticillata*, *Kalosanthus*, the seldom shown *Lapageria rosea*, *Statice Holfordi*, *Pavetta Caffra*, and *Phænocoma proliferum*. The last when well grown and flowered, though somewhat Thistle-like in appearance, is nevertheless a handsome plant.

Of plants remarkable for fine foliage, magnificent collections were furnished by Messrs. Veitch, Jackson, Young, Cutbush, and Bunney. Among them were Palms, *Marantas* of different kinds, *Coleus Blumei* and *pectinatus*, *Crotons*, *Rhopalas*, *Cissus*, tree Ferns, *Dieffenbachias*, *Theophrasta imperialis*, *Calathea zebrina*, *Aspidistra lurida variegata*, *Dion edule*, *Dioscoreas*, *Farfugium grande*, *Caladiums*, one of the handsomest of which is *Chantini*; variegated *Yuccas* and *Begonias*. Of the last named plants Mr. Barnes, of Camberwell, showed a fine collection, in which were *Rex*, *argentea splendens*, *Griffithsi*, *Queen*, *Princess Alice*, *Water-witch*, and *Prince of Wales*, all large-leaved and handsomely variegated. Mr. Cole, of Manchester, also contributed a fine kind called *Marshalli*, with large leaves strikingly variegated with broad silvery markings.

Cape Heaths were shown in admirable condition and tolerable abundance. Among them was nothing new. We observed, however, beautiful plants of *obbata*, *Jasminiflora alba*, and *Metulaeflora bicolor*; the last a very handsome variety with rich rosy pink flowers tipped with white. Of the *Hartnelli* and *aristata* breeds there were also some good samples.

Orchids, though not plentiful, were for the most part well flowered

Messrs. Gedney and Bullen again showed excellent collections, as did also Messrs. Woolley, Carson, Rhodes, May, and Page. In the different groups were fine plants of the handsome *Cattleya superba*, *Cypripedium villosum*, White Butterfly-plant, the singular-looking *Coryanthes macrantha*, White Phaius, the yellow *Anguloa Clowesi*, *Dendrobies* of different sorts, *Miltonia spectabilis*, *Epidendrum verrucosum*, *Odontoglossum hastilabium*, the green-tailed *Dendrochilum filiforme*, *Saccolabium Blumei* and *guttatum*, *Aerides odoratum*, and others, *Stanhopea tigrina*, various *Oncids*, *Sobralia macrantha*, and one or two varieties of *Brassia*.

Of new plants, Messrs. Veitch sent *Pentstemon Jeffreyi*, a pretty blue-flowered kind from California, with a tinge of pink in it; a *Bilbergia*, with a large branching spike of pale pink blossoms; *Calanthe Dominii*, with numerous spikes of pink flowers; a small canary-blossomed *Calla*, the singular *Ceratodactylis Osmundoides*; *Pteris argyrea*, with large fronds striped with white; *Platynerium Wallichii*, from Moulmein; two kinds of *Blandfordia*, *Clianthus Dampieri*, *Chamaebates foliolosa*, *Dichorozandra vittata* discolor, with leaves striped with red; *Spraguea umbellata*, a pink and white woolly-flowered plant from California; *Æschynanthus tricolor*, *Boehmeria argentea* from South America, and *Cyanophyllum magnificum*, both remarkable for the size and beauty of their leaves; and *Philesia buxifolia*. Messrs. Parker and Williams furnished the pretty white and blue flowered *Statice brassicæfolia*, the double yellow *Datura*, a variegated *Tussilago*, an *Anætochilus*, *Tydeæ*, and *Begonia*; also some rare Ferns, *Maranta fasciata*, and others; and a yellow-flowered grey-leaved *Centaurea*. From Messrs. E. G. Henderson were the white *Portlandia platantha*, *Gazania splendens*, a spreading silvery-leaved plant with handsome orange flowers. Messrs. Low showed several Bornean plants, some of which were without names; others were a variegated variety of *Franciscea confertiflora*, *Myrsine picta*, *Gonatanthus cupreâ* (?) with metallic-like foliage, *Pothos argyræa*, the new greenhouse shrub *Chamaebates foliolosa*, from California; *Plocostemma lasianthum*, an *Asclepiad* with bunches of tawny orange-coloured flowers not unlike those of *Cyrtoceras reflexum*; *Spraguea umbellata*, and *Gœthea strictiflora*, whose naked stem was ornamented with flowers enclosed within crimson bracts, in which the chief beauty of the plant resides.

The display of cut Roses was excellent; beautiful collections of 50 sorts were furnished by Messrs. Paul, Fraser, Francis, Lane, and Mitchell. Among the varieties were Victor Trouillard, Comte de Nanteuil, Queen Victoria, Mathurin Regnier, Charles Lawson, Madame Hector Jacquin, Kean, Gloire de Dijon, William Griffiths, Madame Vidot, General Simpson, Niphetos, Prince Leon, Paul Perras, Louis Peyronney, Boule de Nanteuil, Crested Moss, Louise Magnan, Juno, Madame William, Devonensis, Jules Margottin, Augusta, Alphonse Karr, Baronne Prevost, Félicité Parmentier, Auguste Mie, Pius the Ninth, Duchess of Sutherland, Vicomtesse Decazes, Coupe d'Hébé, Souvenir d'un Ami, Narcisse, Duchesse d'Orleans, Marie Thierry, Souvenir de Malmaison, Eveque de Nimes, Mrs. Rivers, Joan of Arc,

Ohl, Duchess of Buccleuch, Souvenir de la Reine d'Angleterre, La Reine, Duchess of Norfolk, Madame Knorr, I. Gray, Lord Raglan, Caroline de Sansal, Triomphe de Rennes. Of single blooms, 24 varieties, Mr. Turner, of Slough, sent *Devoniensis*, *Glory of France*, *La Reine*, *Gloire de Dijon*, *Eveque de Nimes*, *Gloire de Vitry*, *Cloth of Gold*, *Louise Peyronney*, *Madame Domage*, *Mrs. Rivers*, *Victor Trouillard*, *Madame Willermoz*, *Salvator Rosa*, *Lamarque*, *Enfant du Mont Carmel*, *Adelaide Fontaine*, *Niphetos*, *Prince Imperial*, *William Griffiths*, *Lord Raglan*, *Madame Vidot*, *Ohl*, *General Jacqueminot*, and *Jules Margottin*. Of bunches, 24 kinds, from private growers, Mr. Wilcox, gardener to Miss Crawshaw, had *Charles Lawson*, *Paul Perras*, *Gloire de Dijon*, *Lord Raglan*, *Lamarque*, *Jules Margottin*, *Madame Hector Jacquin*, *Madame E. Ory*, *Paul Ricaut*, *Duchess of Norfolk*, *Auguste Mie*, *Moiret*, *Crested Moss*, *Salvator Rosa*, *Devoniensis*, *Great Western*, *Solfaterre*, *H. General Jacqueminot*, *H. P. General Jacqueminot*, *Madame de Cambacérés*, *Coupe de Hébé*, *Souvenir d'un Ami*, *Napoleon*, *Baronne de Wassenaer*, and *Madame de Manoel*. Of *Cloth of Gold* we noticed a boxful from Pymms House, Edmonton. Mr. Standish had also good blooms of *Eugene Appert*.

Pelargoniums in large numbers were contributed. Some were good, others very inferior. The best came from Mr. Turner, Mr. Winsor, Messrs. Dobson and Son, Mr. Gaines, and Mr. Bragg. Private growers were Mr. Bailey, *Shardeloes*; Mr. Shrimpton, gardener to A. J. Doxat, Esq., Putney Heath (the collections from these two very fine); Mr. Weir, gardener to — Hodgson, Esq.; Mr. Tandy, gardener to E. Saunders, Esq., Putney Heath; and Mr. Baillie, gardener to W. C. Carbonell, Esq., Harrow Road. Varieties still in good colour, and which evidently stand sunshine well, were *Etna*, *Cynthia*, *R. Benyon*, *Prince of Prussia*, *Monarch*, *Empress Eugenie*, *Sir Colin Campbell*, *Guillaume Severyns*, *Madame Furlardo*, *Ariel*, *Bianca*, *King of Scarlets*, *Fairest of the Fair*, *Marvellous*, *Flora*, *Metœora*, and the *Bride*. These, one and all, were good. Among *fancies* the following were the best: — *Bridesmaid*, *Acme*, *Mrs. Turner*, *Columbine*, *Rosabella*, *Zoe*, *delicatum*, *Captivator*, *Cloth of Silver*, *Celestial*, and *Madame Sontag*. Mr. Kinghorn sent *Christina* and *Sheen Rival*, and Messrs. E. G. Henderson their new kind called *Imperial Crimson Nosegay*.

Pinks and *Pansies* were getting over, but there were some remarkably fine *Carnations* and *Picotees*. Mr. Turner sent 24 varieties of each, very large and bright, namely: *Carnations*. — *Mayor of Nottingham*, *Poor Tom*, *Mr. Tugwell*, *Sir G. Brown*, *Prince Albert*, *Justice Shallow*, *National*, *Mars*, *Christopher Sly*, *Seedling*, *Ascendant*, *Seedling*, *Antinio*, *Juno*, *Exit*, *Earl Stamford*, *Seedling*, *Tenby Rival*, *Sir H. Havelock*, *Garland*, *Mayor of Oldham*, *Friar Lawrence*, *Seedling*, *Admiral Curzon*. *Picotees*. — *Charlemagne*, *Emma*, *Rival Purple*, *Rev. A. Matthews*, *Mr. Hobbs*, *Cedo Nulli*, *Miss Holbeck*, *Prince Arthur*, *Mrs. Norman*, *Amy Robsart*, *Countess Alice*, *Mary*, *Mrs. May*, *Mrs. Drake*, *Eliza*, *Miss Charlotte*, *Prince of Wales*, *Duke of Devonshire*, *Mrs. Strachan*, *Prince Albert*, *Finis*, *Ne Plus Ultra* seedling. Mr. Norman, of Woolwich, also sent a stand of each, in collections of 12 varieties, very pretty, but much less in size. Mr. Bragg sent 24

Carnations and the same number of Picotees, the latter included some pretty yellow kinds. A certificate was awarded to a fine scarlet flake, named Sir H. Havelock (Puxley); the Rev. A. Matthews and Rival Purple, two heavy-edged Picotees, were very fine.

Verbenas were shown only in a cut state; several collections were shown. The only prize awarded was to Mr. Turner, for Nostradamus, Mrs. Pennington, Fairy, conspicua, Gem, Lord Elgin, Ajax, Lady Peto, Lord Raglan, Comet, Leviathan, Earl of Shaftesbury, Novelty, Venus, Satanella, Matilda, Catherine, Lord Clyde, Verdi, Sir J. Outram, Monsieur Hardy, La Magicienne, Charles Dickens, Mrs. Maclean. Mr. C. J. Perry, of Birmingham, received a certificate for Clara, a rose Verbena. A pretty seedling, blue with white eye, named Lady Dover, was shown in a growing state, and promises to be fine.

Fuchsias were largely contributed and in finer condition than usual. The fault was that too great a proportion of the kinds was dark. The best came from Mr. Oubridge, gardener to — Foster, Esq., Stamford Hill, Mr. Bray, of Regent's Park, being second. The best kinds were Little Bopeep, Clio, Fairest of the Fair, Venus de Medici, Gen. Williams, Souvenir de Chiswick, Peer of England, Queen of Hanover, Honeyball, Wonderful, Guiding Star, and Rose of Castile.

Of Ferns two or three collections were shown. The best came from Messrs. Baillie, Bunney, and Gedney. They contained fine plants of *Gleichenias*, and other favourite sorts, the names of which have been given in former reports.

Of miscellaneous subjects Mr. Ivison, gardener to the Duke of Northumberland at Sion, showed immense leaves of *Victoria Regia* in shallow tanks; also the pink *Nymphaea Devoniana*, together with examples of the white and blue kinds, and of *Nelumbium speciosum*. We also noticed finely flowered specimens of *Lisianthus Russellianus*, a plant now rarely to be met with, and the handsome *Vallota purpurea*.

Calceolarias were shown in good condition by Mr. Cole, of St. Alban's. Of shrubby kinds the best were Magnet, rosy crimson; Orion, yellow; *aurea floribunda*, Amazon, and Queen of Yellows.

Of *Phloxes* two handsome sorts were shown by Mr. Turner; one, a white kind, was named *Blanche*, the other was lilac and named *Model*.

Petunias, both double and striped, were exhibited by Messrs. E. G. Henderson. Among them the most striking were *M. Henry Jacotot*, purple blotched with white; *Coquette*, and *Ernest Benary*, the last a *Carnation striped* sort; *M. F. Beosl*, semi-double crimson; *Madame de Pruins*, and *Virgo Maria*, pale rose, very double. The last-named firm also contributed some extremely showy varieties of *Dianthus sinensis giganteus*. They were of various colours, varying from deep crimson to pale pink striped or blotched, or mottled with white, each flower measuring not less than $2\frac{1}{2}$ inches in diameter! The effect produced by a mass of such blossoms as we have just described may therefore be easily conceived.

Of fruit there was a large display. Pine Apples especially were excellent, beautiful examples of this fruit being shown by Messrs. Davies, Floud, Young, and Page. Mr. Floud's Pines in particular have been very fine. A Providence, weighing 11 lbs. 4 oz., was shown

by that grower at the Crystal Palace on the 8th ult., and at the exhibition held here on the 15th ult. he furnished a Queen weighing 6 lbs. 5 oz., an Enville 6 lbs. 10 oz., and a Providence 11 lbs. 9 oz. Nor were his fruit inferior on this occasion. Messrs. Povey, Davies, Young, and Oates also showed fine fruit of the last named variety. Queens came from Messrs. Dalrymple, Fryer, Page, Halliday, and Temple; and a Prickly Cayenne, an extra fine specimen, weighing $8\frac{1}{2}$ lbs., came from Mr. Bailey, Shardeloes. We also noticed two very fine specimens of Enville.

Of Grapes, Mr. Drewitt, gardener to Mrs. Cubitt, the Denbies, near Dorking, sent admirable bunches of Black Hamburg, and Grizzly and White Frontignan. These were each perfect of their kinds, and fully maintained the reputation for good Grape growing which this excellent grower has already attained. Not less remarkable were three bunches from Mr. Allport, gardener to H. Ackroyd, Esq., Doddington Hall, Cheshire. These were Black Hamburg, West's St. Peters, and Golden Hamburg. The latter was stated to have been from a bud inserted in a very old Vine on the 18th Feb. last year. The fruit exhibited was ripe on the 10th ult., and was larger than that of the sort on which it was budded. Messrs. Wortley, Frost, Page, Bousie, Wood, and Turnbull also showed well in this class. Of Black Hamburg the best dishes came from Messrs. Young, Henderson, Little, Hill, Sawkins, Page, Harrison, Simpson, and Perkins. Beautiful bunches of West's St. Peters came from Mr. Allport, and fine fruit of this variety also came from Messrs. Williamson, Turner, Turnbull, and Tillyard. Of Muscats the ripest and most perfect, though by no means the largest, were shown by Mr. Ingram, gardener to J. J. Blandy, Esq. Mr. Allport and Mr. Turnbull also showed very fine Muscats. Fine bunches of the Bowood variety came from Mr. Thomson of Dalkeith, but generally the Muscats were not ripe. The best basket of 12 lbs. was contributed by Mr. Hill, gardener to R. Sneyd, Esq., Keele Hall, Staffordshire. Messrs. Hodson, Bailey, Thomson, and Jackson also furnished good baskets, chiefly of Black Hamburg. Of White Hamburg, Mr. Bailey showed three very fine bunches; of Golden Hamburg we noticed several exhibitions, but none so good as Mr. Allport's. A remarkable fact connected with this Grape is that those from budded Vines were much rounder in the berry than others from plants on their own roots. Of pot Vines there were exhibitions from Messrs. Standish, Alderson, Ivison, and others. Mr. Standish's, both Muscats and Black Hamburgs, were extremely good, the bunches being large, and the Muscats especially well ripened, though the only places they had to grow in were, as we understood, low pits heated with dung and leaves.

Of Peaches and Nectarines beautiful exhibitions of four dishes each came from Messrs. Miller, Henderson, Thomas, Turnbull, Little, and Allen. The sorts were chiefly Royal George, Bellegarde, and Noblesse Peaches, and Violet Hâtive, Elruge, and Pitmaston Orange Nectarines. Of two dishes, the best came from Messrs. Dawson, Judd, Rutland, Sawkins, and Miller. Grosse Mignonne Peaches, large and fine, came from Mr. Taylor and Mr. Widdowson.

Of Apricots only one dish was shown. They came from Mr. Cameron, gardener to the Duke of Richmond at Goodwood.

Figs: Brown Turkey and Lee's Perpetual were contributed by Messrs. Page, Snow, Ruffet, Hutt, and Bousie. We also noticed a dish of the Violet Fig, the fruit of which was nearly black.

Cherries came from Messrs. Bousie, Wood, Snow, and Widdowson. The sorts were Elton, May and Late Duke, and Morello.

Strawberries were furnished by Messrs. Bailey, Sage, Turner, Kimberley, and Tillyard. Among the sorts were Bicton White, British Queen, Myatt's Eleanor and Surprise, Admiral Dundas, Sir C. Napier, Stirling Castle Pine, Carolina Superb, Filbert Pine, Crimson Queen (large deeply-furrowed late kind), Adair (a large dark kind), and Nimrod. Of seedlings the best was Oscar, the merits of which may now be considered established. It is certainly the best flavoured of large kinds, and being a great cropper must soon find a place in every garden. This was shown by Mr. Turner, of Slough.

Melons were numerous. The best, however, were Scarlet Gem and Orion, the latter green-fleshed. The former has been successful at every show this season.

Of Apples a dish of the variety called French Crab was again exhibited, still in an excellent state of preservation.

Miscellaneous collections of fruit came from Messrs. Turnbull, Dawson, Thomas, Ruffet, and Davies, the names being put down in the order in which the prizes were awarded. In the first lot were Pine Apples, Strawberries, West's St. Peters and Muscat Grapes, Royal George Peaches and Elruge Nectarines, Bousie's Incomparable Melon, a handsomely netted sort; Violet Figs and May Duke Cherries. The second group consisted of Providence and Queen Pine Apples, Black Hamburg and Chasselas Musqué Grapes, Myatt's Surprise and Sir Harry Strawberries, Melons, Royal George Peaches, and Violet Hative Nectarines and Cherries. In the third lot were Queen Pines, Muscadine and Black Hamburg Grapes, British Queen Strawberries, Violet Hative and Royal George Peaches, and Golden Perfection Melon. In the other two collections were Queen Pines, Black Hamburg Grapes, Peaches, Nectarines, Strawberries, and Cherries.

REV. MR. RADCLYFFE'S ROSES.

THE following particulars of a visit, which I made by invitation to Mr. Radclyffe's residence at Rushton Rectory, one of the most enthusiastic and extensive Rose amateurs in this country, may not perhaps be uninteresting.

In your June number of this year you will observe that my approaching visit to the rectory was mentioned, and, as I have been for many years an ardent admirer and cultivator of the Queen of flowers, I hailed with gladness the birth of the day which was to bear me to the south-west. After a wearisome journey of above three hundred miles, lightened however by the pleasure which I enjoyed by

anticipation, I arrived at my destination, and received as hospitable a welcome as possibly could be desired. After a few hours' rest, in company with my host I sallied forth into his garden, and can truly say that such a glorious and dazzling floral sight I never witnessed before. To me, who had never seen the national flower cultivated by an amateur to such an extent, the first effect was overwhelming, and it was enhanced when I found that they were with rare exception in prime condition. The foliage in particular was splendid, so healthy, large, and clean, and the blooms so perfect and of so large a size, as could only have been produced by superior management and incessant attention. These, my first impressions, were strengthened by a minute examination, which spread over several days. The following summer Roses especially arrested my attention and admiration:—Paul Ricaut, General Jacqueminot, Chénodolé, Princess Clementine, Madeline, Charles Lawson, La Ville de Bruxelles, Adele Prevost, Kean, General Lamoriciere, Triomphe de Jaussens, and Cynthia; these were fine, exquisite, and fit for exhibition. The autumnal Roses were numerous and most beautiful; among those in bloom, the following especially attracted my notice by their superiority in the qualities which render the Rose so seductive to its admirers:—Prince Leon, Jules Margottin, Triomphe de l'Exposition, Triomphe de Paris, General Simpson, Pauline Lanzeur, Comte de Montego, Comte de Nanteuil, William Griffiths (fine form), Ornement des Jardins (lovely), Mathurin Regnier, Caroline de Sansal, Souvenir de Leveson Gower, Dupetit Thouars, Henri Lecoq, Durment de Urville, Colonel de Rougemont (very large and fine), Louis Peyronney (most lovely), Madame de Cambaceres, Madame Phelip, Madame Place, Géant des Batailles, Duchess of Norfolk (in fine bloom and most beautiful), General Jacqueminot, Prince Noir, Deuil de F. Willermoz, and Emperor Napoleon; the last is a brilliant gem, and the two preceding are nearly black flowers of great attraction. Moskowa was not yet in bloom.

Among the novelties or newer Roses, I had the pleasure to see Rebecca, Monsieur Ravel, Eveque de Nimes, Lord Palmerston, Cardinal Patrizzi (a beautiful and dark crimson, very darkly shaded), Lord Raglan, and Toujours Fleuri. I confess that among these beautiful Roses, Madame Vidot, Prince Leon, Jules Margottin, Kean, Paul Ricaut, Simpson, Comte de Nanteuil, Montego, Triomphe de Paris, General Jacqueminot, H. C., Lord Raglan (the best of the Géant race), Triomphe de l'Exposition, Mathurin Regnier, William Griffiths, Eveque de Nimes, Monsieur Ravel, Henri Lecoq, and Caroline de Sansal, won my affections; but the Rose which, *par excellence*, enchanted me was Madame Vidot; it is pre-eminently beautiful—a perfect gem, replete with floral grace. The most remarkable Rose which I saw in point of prodigality of bloom was Solfaterre—upon a single tree of this Rose I counted no fewer than 406 blooms, and, though this fact may appear incredible to some, your readers may rely upon the accuracy of my statement, for I was at great pains to ascertain the correct number for curiosity sake.

In confirmation of the above statements, I may mention that on the 22nd of June, Mr. Radclyffe exhibited at Wimborne over 100 Roses,

winning the first prizes for six, twelve, and twenty-four, and also a second prize for a collection. I think that the day before the show, and early in the morning of the exhibition day, we must have cut at least 170 Roses of varied hues, including yellow, white, black, purpled crimsons, and fiery centred, with purple and slate edges; of the latter class, I saw General Jacqueminot, H.C, and consider it one of the finest, most beautiful, and perfectly shaped of the summer Roses, and worthy to cope with the best autumnals. But, in my admiration of my favourite flower, I must not overlook the Peach trees and Strawberry plants which adorn my worthy host's garden; considering the bad spring which has prevailed all over France and England, the fair quantity of the former, and the size, variety, and quantity of the latter delicious fruit, are quite surprising.

I am afraid I have already trespassed too much upon your space, but, before I part from you, I have no hesitation in saying that I would gladly travel twice the distance, between six and seven hundred miles, though it be to enjoy such a feast again. I am an enthusiast in the Rose cause, and have seen many fine collections of this flower, but that was such a sight as no lover of the Rose can realise by mere contemplation. To the rev. gentleman, therefore, whose kindness afforded me such a treat, I beg to tender my most sincere thanks.

JNO. MILNE.

Derringham, Spring Bank, Hull, July 8.

THE HORTICULTURAL SOCIETY.

THE proposed scheme for making a grand ornamental garden at Kensington Gore will have been read by every Fellow of the Society with the deepest interest, and in fact by all interested in maintaining so important an establishment as a National Horticultural Society, which, as representing Great Britain, and her almost unlimited dependencies; ought to be conducted on a scale commensurate with the great objects it has to fulfil. That the Society has not been in a healthy state for several years is well known, and the Council have long been anxiously watching for opportunities which might relieve them from their embarrassment. We could perhaps point out where mistakes have been made, even by the reforming Council, which increased rather than diminished their difficulties; but we are willing to let bygones be bygones, and enter on the, to us, far more agreeable task of pointing out to our readers what is proposed to be done, in respect to which we wish individually to say, that the scheme, if it can be carried out satisfactorily to the minds of those embarking their capital in the undertaking, has our warmest wishes for its success.

The site of the proposed garden is the centre of a block of ground opposite Hyde Park, and lying between the Kensington-road and the Cromwell-road, leading to Old Brompton. This ground was purchased by the Royal Commissioners of the Exhibition of 1851 from their surplus funds, with the idea of its forming a suitable site for public buildings connected with science and the fine arts. The situation, so

far, is unexceptionable, and if carried out agreeably with the plans laid down, will no doubt make a highly attractive place of resort, well adapted for holding horticultural exhibitions, concerts, &c., as well as exhibiting what can be effected in the way of town gardening, a point we have long advocated as being much wanted in Hyde and St. James's Parks, which, notwithstanding all that Sir Joseph Paxton said to the contrary the other day in the House of Commons we consider would be greatly improved by more floral embellishment.

The sum required to carry these works to completion is estimated at £100,000, of which the Royal Commissioners are willing to expend £50,000 on the arcades and ground-work which are to surround the gardens, by the Horticultural Society undertaking to expend an equal sum in finishing the terraces and erecting a winter garden and colonnade on the north side of the ground; the Commissioners stipulating that all expenses contingent on the maintenance of the gardens at Kensington Gore, and also for keeping up the experimental garden at Chiswick, shall be a first charge on the profits; next, that the interest of the £50,00, to be borrowed by the Horticultural Society shall be paid; and lastly the debenture interest on the £50,000 to be expended by the Royal Commissioners. After providing for these sums, should there be any surplus remaining, it is to be divided between the Royal Commissioners and the Horticultural Society. So far the terms are favourable, as, according to a statement submitted to the meeting of the Horticultural Society convened to discuss these proposals, a profit is shown on the estimates of receipts and expenditure of £8075, from which deducting rent and interest on debentures, say £5000, will leave a handsome sum to be divided, supposing the foregoing calculations prove correct, or nearly so. It is presumed, however, that the profits will far exceed the amount stated.

We must beg our readers to bear in mind that a portion only of Chiswick is to be retained for the purpose of carrying out experimental gardening; and, we presume, also for acting as a nursery for furnishing the houses and gardens at Kensington Gore with plants for decoration.

The Society, then, is in this position. It has the offer of 20 acres of ground most advantageously situated for show grounds, on which an expenditure of £50,000 has to be incurred to form an ornamental town garden, the expenses for keeping up which, we may take it for granted, will be secured to it, as also the interest of the money it will have to borrow to carry out its agreement; and it is also secured the maintenance of keeping up its experimental garden at Chiswick. At least we think all this may fairly be inferred, from the popularity the gardens at Kensington will doubtless attain. And further, it has the chance, through a right to a moiety of any surplus profits which may accrue after paying interest on their loans and £2000 for rent to the Royal Commissioners, of benefiting horticulture generally, and of promoting the more legitimate objects for which, as a *Society for the encouragement of horticulture*, it obtained its charter of incorporation, and which, we beg to impress on the Council, *should be still the great object and aim of the Society to pursue.*

The means proposed by the Society for raising the necessary capital

are the issuing of debenture bonds, life membership, &c. Of this latter mode the present Fellows of the Society will doubtless avail themselves more generally than they have hitherto done. Respecting the debentures, we should have liked to have heard something more explicit stated; the lease is for 31 years only, and we are not told what security can be given for the repayment of these bonds when due, as it is considered by many that the proposal to pay them off by surplus income and life subscriptions is too vague a statement on which to borrow so large a sum as is required. We hope, therefore, the Council will be enabled to announce at the next meeting that some arrangement has been effected with the Royal Commissioners whereby they should take up the existing obligations at the expiration of the lease, supposing it not renewed. This would give confidence to the undertaking, and would only be fair and equitable towards the debenture holders.

Her Majesty and the Prince Consort have most graciously set an example of liberality and patronage towards the Society of which the horticultural world have good reason to be proud, and its effect on the future welfare of the Society can hardly be over-rated.

The last point to which on this occasion we shall advert is as to the management of Chiswick, and especially to the distribution of those funds which may hereafter be specially devoted to horticulture proper, and which of course would include the collecting and distributing of new plants, as well as carrying on a large series of experimental trials on culture, training, and proving new things. When the proper time arrives we shall be prepared to urge the necessity of a separate committee of practical and scientific men to manage this department; but as there is time enough yet for this, we only direct attention to its importance.

Since the above was written, we learn from the *Gardeners' Chronicle* of July 23, that the arrangements with the Commissioners are fully settled, as the following extract will show:—"Nor is there any sign of serious difficulty in completing the fund of £50,000, by the issue of debentures, which, under the new arrangement proposed by the Royal Commissioners, will afford as safe an investment as can ever be obtained in operations of this kind. Each debenture is to be of the value of £100, carrying, until paid off, 5 per cent. interest, payable half yearly, and giving the holder free admission, either in person or by transferable nomination to the garden at all times whatsoever. The Royal Commissioners are to guarantee a sum not exceeding £20,000 to all debenture holders remaining unpaid at the end of the first term of 31 years, or else to renew the lease for 31 years more."

We should have been more satisfied with this arrangement had the Royal Commissioners guaranteed to have taken all the unpaid debentures at the expiration of the 31 years, should they not renew the lease supposing they did not exceed £50,000, the sum now authorised to be raised by the Horticultural Society, as the contingency may arise that the liabilities might exceed the £20,000 guaranteed to be paid by the Commissioners, which in such case would leave a deficit unprovided for.

HOMES OF THE FLORIST.—No. I.

STAPLEFORD.

As the sun was declining in the west, on a fine evening in the month of May, in the year of grace eighteen hundred and fifty nine, a traveller might have been seen wending his way along the high road that leads from Cambridge to Stapleford. He was about the prime (?) of life, and of average stature ; while the snow that had begun to whiten his whiskers betokened that he was perhaps on the shady side of the said prime ; from the fact that he was without attendant of any kind, and unencumbered with luggage, you might have guessed him (*i. e.* if you were an ignoramus) to be a traveller who lived upon his wits and the inexperience of others ; but a closer inspection would have, notwithstanding his dusty and soilworn appearance, detected that he belonged to the ecclesiastical order. He was evidently a stranger, for each little ragged urchin he passed was pressed into his service, to inquire the way to a house, at the door of which he soon found himself. In such a way—in G. P. R. James' style—I might go on to describe what I will, however, attempt in a less enigmatical way, my visit to one of the first florists in the kingdom, R. Headly, Esq., of Stapleford. Tulipomaniacs, moonstruck Auricula growers, Carnation fanciers, you all know Richard Headly. Let me tell you what sort of a man he is, and how he treated a poor brother florist, and how he will treat you, if you ever go near him.

It was just as I had said I had come round by Bury St. Edmonds, and seen its glorious church and ruins, had wandered through the shady groves of Cambridge, and not liking the prices of mine host of the ———, I thought, I will take my bag, go to Stapleford, put up at a nice clean country inn there, and ask permission to see Mr. Headly's flowers. So I carried this plan into execution. Leaving the railway station at Cambridge (which is by the bye one of the most delicious puzzles of a station), a few minutes brought me to Sheldford, where, depositing my bag, I walked on boldly to Mr. Headly's. I was utterly unknown to him, save by two or three foolish letters I had sent to but I sent in my name, and in a few minutes Mr. H. came in ; he received me with the utmost cordiality as a brother florist, insisted on sending for my bag, made me take up my quarters with him, and took me round his garden. Of course, as everybody tells you when you go to see their garden, or look over their house, it is a very bad time to come ; they are all muddle and confusion, and that if you could only come a little later it would be very different. So said Mr. Headly ; he had been burnt up by the long drought, scorched with the east winds, and his gardener was ill, all which were unhappily too true, but they did not seem to have exerted much influence on the state of his garden, which was very different to what the common notion of a florist's garden would induce people to expect. They say you must never look for it to be tidy, there are so many awnings and contrivances for shading, traps for insects, &c., that it is never to look well ; all which, though true of some, is not true of Mr. Headly. The house stands in the centre of a very pretty plot, in which are Roses, shrubs, and some

nice specimens of Deodar and other Pines; beyond it is *the* garden, where so much has been done to advance the love of and taste for flowers. Mr. H., as it is well known, is a very large Tulip grower, and his beds of this flower are very large and numerous; they were not, however, in their usual order. The season, which had at first promised favourably, changed early in April, and from the middle of the month a succession of blasting scorching east winds prevailed, which, despite of Mr. Kingsley, the inhabitants of these islands will proclaim to be "good neither for man nor beast," and certainly not good for florists and gardeners. There were both here, and also in another garden which he has a little further off, a large quantity of breeders, some of which were breaking in good style, and we may still expect some *toppers* from the same strain as Sarah Headly. I am not a Tulip fancier, and, I fear, sunk some degrees in Mr. Headly's estimation, when I announced a fact, so derogatory to one's position as a florist. Of Carnations and Picotees there was a large army in pots, which were then standing on the walks, but would by and bye be staged under the Tulip awning; while a long bed of the very best Ranunculus, in vigorous health, promised a treat, which I should have been glad to have seen, and which, Mr. H. afterwards wrote to me, he was not disappointed in; it reminded me of a bed I saw, now about 28 years ago, and which first made me a florist. I have no doubt the sorts were inferior to those now grown, but there was such exquisite variety of beauty of them, at least to my then boyish eyes, that I have never forgotten it, and have ever regarded it as one of those sights which I am not to see again. The stock of Auriculas was smaller than I had been led to anticipate, but, Alexander-like, Mr. H. had beaten every one he came in contact with, and then he began to grow careless, because he had not a worthy competitor. He still, however, grows a nice collection, which looked well and healthy (but out of bloom), among which was Geo. Lightbody, a seedling named after his friend, the famous Auricula wizard of the north; and which is said, as a grey edge, to possess qualities which will place it at the top of the list. I should have been glad had my visit been a week later, that I might have seen the original G. L., who was coming on a visit to Mr. Headly. Pinks, and indeed all the florist flowers, looked well; but, let it not be thought that these are the only objects of Mr. Headly's care. He has an extensive range of greenhouses, stoves, &c., and in them were plants preparing for the Cambridge show, in the following week, which would have taken a good place at a metropolitan show—Cinerarias, greenhouse and stove plants, and some idea of the manner in which they were "done," may be estimated from the fact that 20 prizes were awarded to their owner at the exhibition. Vegetables and fruit are equally well cared for, but some of the Peach trees were in a sad state, from the effect of the "Gishurst Compound," of which so much has been said; whether it was an over dose or not I cannot say—Mr. H. seemed to think not. Like a true florist, Mr. Headly is a liberal man; he sent me away with a goodly half-dozen of Auriculas, and a promise of a young Geo. Lightbody, as well as some self-coloured Ranunculus, to add to my stock. Mrs. Headley, too, ably seconds him in all his plans; she

does know a Rose from a Cabbage, and I was amused at her anxiety to see a package of plants from London unpacked. I could not help observing to myself, when I left their hospitable roof in the morning, we often talk of Irish hospitality as a thing *sui generis*. I have known Ireland for many years, have received oftentimes its *cead millen fealtha*, but I can safely say I never experienced a more true and hearty hospitality than that which was accorded to me at Stapleford, and which, as entirely a stranger, I had no right to expect; and what is more, I am quite sure that any brother of the craft, who might be attracted by the fame of Stapleford to visit it, would find the same. All honour to such florists, they tend to roll away the reproach, which is often brought against us, of selfishness, though I cannot understand how any one can care to grow things merely for their own sake, and not be ready to help those around them; and I hope that we shall yet see, in Auriculas, Carnations, and Tulips, more Splendours, George Lightbodies, Auroras, King James, Sarah Headly, Adonis, &c., to raise, if possible, still higher the fame of the excellent grower.

The following list of seedlings raised by Mr. Headly, will be the best proof of his title to be a successful raiser.

AURICULAS.

GREEN-EDGED.

Defiance
Rifleman
Conductor
Mary Headly
Magnificent
GREY-EDGED.
Superb
Geo. Lightbody
Sir Charles Napier
Stapleford Hero

WHITE.

Conqueror
SELFS.
Pastorella
Royal Purple
Aurora
Adonis
Sylph

CARNATIONS.

Achilles (S. B.)
Wm. Cobbett
Victoria Regina

PICOTEEES.

Sarah
King James
Mrs. Headly
Prince Albert
Captivation
Cedo Nulli
Ne Plus Ultra
Mrs. Brown

Besides other unnamed seedlings.

D.

BRITISH POMOLOGICAL SOCIETY.

MAY 5.—Mr. Hogg in the chair. This was the day appointed for competing for the prize of one guinea, offered by Mr. Spencer, of Bowood, for the best Seedling Late Kitchen Apple. That to which the prize was awarded was raised by Mr. Bradley, gardener to W. F. N. Norton, Esq., Elton Manor, near Nottingham, and was raised from seed of Dumelow's Seedling in 1850, since which time it has been allowed to grow naturally without grafting. The variety has been named Baron Ward. It is below medium size, and of an ovate shape; the skin is of a fine golden yellow colour, quite smooth and shining; eye slightly open, and stalk short; flesh very tender, crisp, and fine-grained, with

a nice, subdued and very agreeable acid, not unlike in flavour that of the Gooseberry Apple. Its acid is less rough and severe than the Dumelow's Seedling, against which it was tested; and it is considered a very valuable culinary Apple for this late season of the year, as it appears to keep well without shrivelling, having been gathered in October. It is reported to be growing on strong adhesive loam, over the lias, in the Vale of Belvoir. The habit of the tree is described as vigorous and healthy; inclined to spread horizontally; and retaining the foliage at the point of the shoots until late in the winter, although ripening its wood perfectly; the young wood is not speckled like Dumelow's Seedling.

Rev. J. Bramhall, of St. John's near Lynn, again sent specimens of Clissold's Seedling, or Lodgemore Nonpareil, a seedling which he submitted to the society at the meeting of May 6th last year. A very high opinion was then expressed regarding it, and which, this year, was fully sustained. It is a most valuable dessert Apple at this late season.

Mr. Horton, Post Office, Toddington, Bedfordshire, sent a seedling Apple (raised by a friend), and also a variety which had been sent in 1857, on which occasion the meeting desired to see it again. This year the sender considered the crop inferior to last, when it was reported to have kept sound until the new crop was gathered. The fruit is about the medium size, greenish yellow on the shaded side, and dull red next the sun. A month ago it would have been in good condition, as it had the remains of a good flavoured Apple, something like that of London Pippin, but it had now become mealy. Mr. E. Simpson, gardener to Lord Wrottesly, Wrottesly Hall, Wolverhampton, sent a dish of very beautiful Dumelow's Seedling, large, firm, and heavy. They have been beautifully kept. The Rev. H. Manton, of Sleaford, sent a dish of Scarlet Nonpareil, which were considerably shrivelled, but well flavoured, and were also well kept for that variety. The Rev. Adam Fitch, Thornton Stewart, Bedale, sent a dish of Aromatic Russet, still good in flavour although shrivelled.

June 23.—Mr. Hogg in the chair. The premiums offered at this meeting were a guinea, and half-a-guinea, for the best collections of Strawberries, the object being to draw together as many as possible of the varieties in cultivation, that the society might compare them, test them, and decide upon their respective merits and corrections of nomenclature. Only one collection came within their intentions, and was exhibited by Mr. Turner, of Slough; the first premium was unanimously awarded it. The most remarkable variety in the collection was Oscar, a seedling exhibited for the first time last year, when high encomiums were passed on it; and this year's examination has fully borne out the former impression. For further particulars see notes on seedlings below.

In the following remarks the varieties are arranged according to size; and those nearly allied are brought together. Oscar (Bradley) is after the way of Sir Harry (Underhill), which was also exhibited very ripe and good-flavoured. The last-mentioned variety has not found universal favour; probably because it is not generally known that the fruit requires to be very ripe, and its great firmness permits it

to be gathered, packed, and carried long distances without injury. Hooper's Seedling is another of this class, very highly coloured, but inferior to either of the above in flavour. Sir Charles Napier (Smith), bright scarlet, pectinate, and very handsome; very refreshing and juicy, brisk, but not richly flavoured. Doubleday's No. 3, or Crimson Queen (Myatt), is large, coarse, irregular, very pectinate, and deeply furrowed. Colour bright cerise-scarlet. Flesh red throughout, brisk, acid, not rich. It is reported to be a great cropper. British Queen (Myatt) needs no description; as it is always good where it succeeds, which is generally on strong soils; as also on light soils, or in dry localities, is its near relative *Carolina superba* (Kitley), which is now equally well known. Very nearly allied to British Queen is Doubleday's No. 2 (Myatt), both in colour and flavour, but scarcely equal in the latter. It does not, therefore, appear in what point this variety is desirable. Omar Pacha (Ward), was not distinguishable from Rival Queen (Tiley), large, regular, and handsome, pale scarlet, general conoid, somewhat cristate, refreshing flavour, after the way of British Queen. Reported to be a good cropper. Surprise (Myatt), pale scarlet, very cristate, very soft, acid, and deficient in flavour. Wonderful (Jeyes), similar to the above, but longer in form, very corrugate, seeds more numerous, firmer in flesh, juicy, and briskly acid, with a medium flavour. Adair (Elphinstone) is handsome and highly coloured, brisk, but not highly flavoured; reported to be a strong grower and medium cropper. Nimrod (Pince) was so nearly like Adair both in fruit and foliage, that the meeting were unable to distinguish them. Admiral Dundas (Myatt) is large, conoid, somewhat cristate, very rugged, and irregular; colour pale red; flesh white, very juicy, brisk, and fine flavoured. Prince of Wales (Ingram); this kind, now well known, is a favourite for forcing purposes; it was exhibited in good condition; flavour rich and juicy. Elton Pine (Myatt); this was scarcely ripe, but well grown. Filbert Pine (Myatt); this variety deserves to be more known; pale-coloured, very regular in form, medium size, conical, and handsome; flesh pale, with a pink core, firm and solid, with a rich nutty flavour. Eliza (Rivers) was small, and not equal to its average quality. Incomparable (Continental). Mr. Turner reported that he had selected this as the best out of a large number of continental varieties; it was pale in colour, regular in form, and distinct, but soft in flesh, and worthless in flavour. *Quinquefolia* (Myatt), is a medium sized, elongated fruit; not a good grower, nor first-class in flavour. Black Prince (Cuthill), not any better in quality than when reported on last year; the only merit this variety possesses is earliness, and a slightly perpetual habit, which makes it also a late variety. May Queen (Nicholson), a small, round, and coarse variety, very acid, utterly worthless. Mr. Jones, gr. to E. Rosher, Esq., of Hamilton Terrace, St. John's Wood, exhibited a remarkably fine dish of British Queen, as evidence of what may be done within London in the way of Strawberry growing; they were large, well coloured, and very fine flavoured.

For Seedling Strawberries the premium of One Guinea, offered by Mr. Turner, was awarded to a dish of Oscar, exhibited by Mr. Bradley,

gr. to W. F. N. Norton, Esq., of Elton Manor, near Nottingham, in very fine condition. The fruit is very large, ovate, angular, and frequently cristate, but rarely flat, or wedge-shaped; seeds rather large and deeply imbedded; colour very dark, becoming deep mulberry when fully matured; flesh red throughout, solid, firm, and juicy; flavour very rich and fine when quite ripe, apparently near in affinity to Sir Harry, on which it was considered an improvement. Particular notice was taken of its firm and solid qualities, which augured well for its powers of enduring package and carriage. The above dish afforded good evidence of this, as the fruit itself was firm, plump, and uninjured, although it had travelled from Nottinghamshire; and, in consequence, the footstalks and calices were dry and withered. It was reported to be a great cropper, next in earliness to Cuthill's Black Prince, and some days earlier than Keens' Seedling.

July 7.—Mr. Hogg in the chair. An interesting dish of Double-day's No. 3, or Crimson Queen (Myatt), was exhibited by Mr. Turner, to show its qualities as a late Strawberry. The fruit was even finer than those in the collection last meeting; but the meeting did not attribute to it a higher place amongst mid-season varieties than would accrue to it from the opinion above expressed; its continuing to produce large fruit later than other kinds may be a point in its favour, but this will be more satisfactorily seen a fortnight hence.

PALACE OF THE PEOPLE, MUSWELL HILL.

ON Saturday July 16, the inauguration of a site for the proposed Palace of the People, was performed by Lord Brougham, in presence of a numerous company, comprising the patrons and patronesses of the proposed institution.

We have before noticed in our pages this proposed institution, designed for the purpose of supplying to the inhabitants of the northern parts of the great metropolis the same amount of physical recreation and intellectual improvement as the Crystal Palace affords to the south of London; and we are glad to learn that the Palace of the People is projected in no spirit of opposition to the Sydenham Palace. Granted that institutions like the Crystal Palace, founded on the most comprehensive basis for affording relaxation and instruction of a strictly moral and intellectual character to the masses of population are necessary—and according to so high an authority as Lord Brougham they are imperatively so—it then becomes a question how far two grand institutions, having similar objects in view, may best conduce to the desired object, without injury to themselves; and we hope that nothing but the most liberal feeling towards each other will exist between them. It will not in fact be a case of Crystal Palace *v.* Palace of the People, but instruction, enjoyment, and physical recreation, obtained in the midst of beautiful objects and scenery, and the attractions (such as they are) of Tavern, tea-gardens, and less questionable places of resort in the suburbs of London. The growing

disposition on the part of the people for visiting highly kept gardens and parks is clearly demonstrated by the large annual increase of visitors to the Royal Gardens at Kew. In 1841 it appears 9174 persons only visited the gardens, (a less number than attended one of the Chiswick fêtes for that year;) but this number has steadily increased to 405,376, the number of visitors to the Kew gardens in 1858. It also appears that no less a number than 1,058,206 persons visited the Crystal Palace and grounds during the 6 months ending Oct. 30, 1858; and it must be a most satisfactory fact to all interested in this subject, that the present season will show a large increase in the number of visitors over that of 1858.

These are facts which clearly prove that the projectors of the Palace of the People have rightly defined the bent of popular feeling in this direction; and in projecting a Palace and grounds which shall combine every requisite for promoting the enjoyment and instruction of all classes of their fellow men, they merit the support of all interested in the momentous question of improving the moral, and intellectual condition of the lower classes, and by making the finest productions of nature and art subservient to educational purposes, will do all that can be done to improve the national taste, and confer a boon on the public which can scarcely be over estimated. Of the stimulus the Palace of the People will give to horticulture, we shall say but little now; here after, when the details are more complete, we hope we shall be able to show that this important subject has received due consideration, and will be suitably represented by an experimental garden on the one hand, and every feature of scientific application on the other.

HORTICULTURAL SOCIETY.

JULY 12.—Mr. Jas. Veitch's prize of £5, offered for the best exhibition of Stockwood Golden Hamburgh Grape, was awarded on this occasion to Mr. Sparey, of Brighton, for three fine bunches of that variety. Two other exhibitions were also entered for the prize, one from Mr. Allport, gardener to H. Ackroyd, Esq., of Doddington Park, Nantwich, and the other from Mr. Crambe, gardener to the Earl of Ducie, at Tortworth Court, Gloucestershire. The bunches exhibited by Mr. Sparey were produced from a shoot grown from a graft of the Golden Hamburgh, which was put on in April 1858, and which, Mr. Sparey stated, bore this season in all 13 bunches. The three exhibited were remarkably well grown, both as regards form of bunch and size of berries, all of which were well and equally swelled. The bunches exhibited by Mr. Crambe were likewise very fine; they were longer than those which gained the prize, but the berries were not quite so large. The specimens exhibited by Mr. Allport were over-ripe. It was stated that the fruit was ripe on the 10th of June, and was larger than that of a very old Black Hamburgh on which it was worked.

NOTES ON THE MONTH.

THE present month has perhaps been the hottest on record, taken altogether—remarkable, too, for the constant repetition of thunderstorms, attended with violent storms of rain and hail, which in many districts have done great damage to crops of all descriptions, and will seriously affect the Wheat returns. The connection between the Potato disease and electrical storms has been verified this present season. Early in the month a district near where I write was visited by a thunderstorm, accompanied with rain and hail, confined to a small district. Within a day or two the disease made its appearance, and increased most rapidly, while in those fields which the storm did not reach they have continued without being attacked, until they, in their turn, were visited by a storm, since which they, too, have gone. Of the former, most of them are now quite rotten, and are now being dug up, to be replaced by Turnips. We may remark that the crop, taken altogether, has a worse appearance than for the last ten years, the appearance of the disease having been much earlier than of late years, and is almost universal over the whole country. In many places forcing houses and flower gardens have been converted into a complete wreck by hail-storms, as have also many hundred acres of field crops by the same means and the floods.

A writer some time since in the *Gardeners' Chronicle* astonished English planters by affirming that French planters entirely denuded unhealthy trees of the whole of their bark, as a way of recovering them. Surely such absurd nonsense required no confutation. It is now discovered that the outer or rough portion only is taken away before planting. There was a very good description of the French mode of transplanting the large trees employed to replace the dead Elms in the Champs Elysees and the Boulevards, I think, in the September number of last year's *Florist*; and having seen the process carried out myself this season, I beg to say I saw nothing like barking the trees. A few of them had the loose bark shaved off, before enveloping the stems in their mossy bandage. I could not help noticing the care with which the minutest details were conducted as to planting the trees and attending to them afterwards. Those noticed by your correspondent last year, as being then planted near the Palais de l'Industrie, are growing well and look healthy; indeed it is marvellous to see how they grow at all in some situations where they are planted. The transplanting of large evergreen and deciduous trees in spring, notwithstanding all that has been said to the contrary, is yet far too prevalent; probably as regards old places, from the fact that during the autumn the "family" are generally located at their country seats, and much work of this description would be inconvenient, and all is postponed till the removal of the family to town the following spring. If we could impress on the minds of those having planting to do what trouble and annoyance they would save themselves and their employers by planting during September and October (or even August), we should do a good service to all; but we despair. However, let those who can do so prepare at once.

G. F.

EUGENE APPERT ROSE.

I HAVE already given my opinion about this splendid new Rose, in last month's *Florist*, and have but little to add to what I then stated. Mr. Andrews has endeavoured to give the readers of the *Florist* a life-like representation of it; but it is difficult to pourtray so exquisite a Rose. Will it bear out all the good opinions that have been expressed about it? This it is impossible to answer. Many Roses are promising as seedlings, which do not afterwards bear out their character; but I, for one, do not think that there is any likelihood of Eugene Appert being one of these; there is an evident constancy about it that I think will remove all doubts on this point. If I may judge from the plant now before me, its growth will be all that is required—short, yet vigorous and freely blooming. I shall look for him anxiously next season, to see if he be true to his youthful promises.

Deal, July 25.

D.

PLANTING STANDARD ROSES.

By the time I became settled in life, I had succeeded in propagating a large stock of Roses, embracing upwards of one hundred varieties. With these I have decorated my house and lawns, not only to my own gratification, but, whilst they are in bloom, to the admiration of visitors and passers-by. I am convinced that parents cannot do better than supply their growing-up families with such works as the *Florist*, and also to encourage them in growing any class of flowers for which they may have a partiality. I persevered in growing the Rose amidst many discouragements; in fact, my straight sticks for stocks were the butt of all my friends and neighbours; but as soon as they began to put on their rosy heads, one of those who made the most sport planted some stocks himself.

It is my opinion that "the trade" would do well to assist and encourage young amateurs in their endeavours to cultivate and propagate the different florists' flowers, as I believe an amateur who could successfully propagate as well as grow flowers would be inclined to purchase to a larger extent than an unsuccessful cultivator; at least, it is the case with myself, for ever since I have cultivated the Rose satisfactorily, I have spent more pounds than I should shillings in flowers had I been less successful. In regard to the varieties of Roses to be grown, the various characteristics of the different divisions or families, and the varieties in each family, I cannot do better than refer the amateur to the "Rose Amateur's Guide," by Rivers, or "Paul's Rose Garden," as a larger work, in conjunction with the catalogues published annually by Mr. Rivers and other eminent Rose-growers. I will now proceed to make a few observations on planting.

In passing through the country, I am often sorry to see neat cottages, villas, and even mansions, with some half-dozen or more stunted standard Rose-trees planted in the turf, neither dead nor

alive, forming no ornament; whereas had more care and attention been bestowed on them when they were planted, the case would have been quite the reverse. Their owners have no notion of the true cause of their failure, but cast all blame upon the nurseryman from whom the plants were obtained. I have seen young plants just taken from the nursery, where they had been attended with the greatest care, planted in a hole scarcely large enough to contain their roots, in a very poor lawn, with the turf laid close up to their stems, and without any manure. How, therefore, can they be expected to thrive? Should you venture to give a hint to a person who is planting in this manner, it is more than probable your remark would be answered by, "I don't understand it myself; but I believe my man (a kind of nondescript between a gardener and groom) does." Such a person under the skilful direction of a master or mistress would be useful; but when the operation of transplanting is entirely left to his discretion, it is too often performed in an improper, slovenly manner, and the beauty, health, and even life of the plants are sacrificed. Where it is desirable to plant Standard Roses singly in grass lawns (and what can be more ornamental than a well-grown healthy plant covered with bloom?), a circle of turf should be removed not less than five or six feet in diameter. If the first spit of soil be moderately rich, it may be placed on one side, and the whole of the subsoil, to the depth of three feet, entirely removed, and replaced with a mixture of good rich loam, good strong stable manure, or old night-soil, and the top spit next the turf well mixed with them. If the top soil is rather light, a good proportion of the subsoil, if heavy, may be added to it, in order to make the compost heavier, as I find Roses budded on stocks of the Dog-Rose flourish best in a moderately heavy soil. Tread the mixture in the hole, to prevent it from sinking, till nearly full, place the plant in the centre, spreading the roots and fibres in an horizontal direction, and cover them with rich garden-mould. Especially avoid planting too deeply. On the top spread a layer of subsoil, poor sand, or road earth, one or two inches thick, to prevent the turf from growing more luxuriantly than the rest of the lawn. In replacing the turf, leave a circle not less than eighteen inches or two feet in diameter around the stem. This should be filled, instead of subsoil or poor sand, with a rich compost, which will be washed down to the roots by the rain. To ensure the future health and vigour of the plants, one or two gallons of good liquid manure should be poured on this circle two or three times every succeeding winter.

The same remarks are applicable to Roses in beds or borders; but the whole of the beds or borders should be dug three feet deep, mixing the top soil, the subsoil, and a good quantity of manure together; and each winter succeeding the planting, a layer of manure may be spread on the surface of the beds or borders, to be washed down to the roots by the rains: in order to obviate its unsightly appearance, cover with a little earth. Amateurs should not neglect to provide themselves with stocks (for budding during the ensuing summer) in October and November; this should not be delayed later; plant

them in an airy, open situation, but sheltered from the wind. Strong healthy stocks should be obtained about the thickness of a man's thumb; the common dog-Rose can be taken up from the hedges; and I suppose the Boursault, or any other stock preferred, may be obtained from any nurseryman. They should be cut off, with a clean slanting cut, just above an eye or bud, any height the grower wishes to have his plants; but if worked much above four feet, the wind has a very powerful effect on them when they have large heads. As the young shoots, in which to insert the buds, generally break from where the side-shoots have been cut, the latter should be removed close to the stock, smoothly and nicely, but not *too* close.

J. B.

THE PHILOSOPHY OF TRANSPLANTING.

WHAT is the secret of successful planting? Why do some trees live, and some die under the operation? Why do they not all live? Why do any of them die?

Though comprising some of the simplest questions, and affording as simple answers, who has ever heard a satisfactory one given? Jupiter, when he undertook to receive the complainings of the sons of men, could not be more struck with the opposite nature of their wants and wishes, than a new beginner in the planting line must be at the varying and contradictory advice he is constantly receiving.—“Don't plant in autumn,” “Don't plant in spring,” “Prune severely,” “Don't prune,” “Water at planting,” “Don't water;” but we may as well stop. As to reasoning on the matter, who attempts it? Some few do; but how do they do it? “Dogmatically and dictatorially.”

Now, if we can only demonstrate why a transplanted tree dies at all, all the questions about the time and season and manner of planting may be compressed into a small paragraph. It needs no reasoning to tell us an umbrella is useful in rainy weather, or that a well-corked bottle will keep the liquid safely inside for an indefinite period, and yet these simple facts might be so confused by words, and obscured by scientific verbiage, that a score of opinions might be conscientiously entertained of them. This is the way errors arise in the idea of tree planting. We read learned disquisitions on the functions of the leaves, and their relation to the roots—of the cells and tissues, and of crude sap, and sap elaborated—and after all the terms in physiology have been exhausted to show the cause of the death of a transplanted tree, it all amounts to this matter-of-fact conclusion: that it died through being dried up.

Through being dried up! You may as well tell us an animal dies for want of breath. And if it does, we may not be able to give the breath, but we may give the necessary moisture to the tree. To make the matter plain, if we take up one of two trees, and leave it exposed for a few days, it dies,—it withers and shrinks away; but the other lives on as ever. Evaporation is continually going on from the branches

of trees. In the exposed tree the roots are prevented from supplying the waste; in the other they maintain the balance; so that the one dies and the other lives.

Shall we now say that every case of death from transplanting is only a modification of this simple process? Indeed, it is from no other cause. The tree has dried up.

It is a remarkable circumstance that our physiological writers have nearly, we may say quite, overlooked this matter of evaporation. Only a few days ago, we read a very learned disquisition, showing that trees should never be pruned at transplanting, because the speedy production of roots was a great object; and as the elaborated sap in the branches was the matter from which roots were formed, why the more branches the better for the roots. All true enough, my good friend, if you could prevent the moisture from drying out in the mean time; but there's the rub,—the more surface the more waste.

Instead of allowing the tree to lie neglected on the ground, we will say that it is actually planted. The roots are more or less mutilated—that is a necessary result of removal—and many not mutilated are not, even with the best care, so closely imbedded or surrounded by soil as to be able to obtain the same amount of moisture from the earth they could before transplanting. And now immediately follows a bitter cold windy day, or a hot and dry time, when the very skies seem like brass, and all nature seems languid and debilitated; the sap is exhausted faster than the roots, so circumstanced, can supply, and just the same as in the totally neglected tree, it dies—dries up.

But the result is not often so palpable. No cold winds or hot days perhaps follow for a long time, but the soil is cold, and unfavourable to the production of new roots, and so the tree stays in a state of rest—laying up no treasures, taking no thought of to-morrow—and when the adverse time does come, its sandy foundation is discovered. It dies—it dries up. So we may go on through a score of illustrations. Still the same explanation, the same reasoning, the same result: it dies—it dries up.

From all this it follows, that to succeed in transplanting, all that is necessary is to have control of the evaporating power of the tree—to prevent, in plain language, the sap from drying out of the tree, until the roots have made new fibres, and thus able to supply whatever demands the branches may make on them for moisture.

There are, then, two periods when it is good to plant trees; one is when there is very little evaporation going on from the top of the tree; the other when the roots are active, and the fibres are pushing with freedom and vigor, and the best time is when we can get the two to work together. This is not easy. When the thermometer ranges between 35° and 45° , little or no evaporation is going on—the air is saturated with moisture, and a tree might be dug up, and suffered to lie for a week with its roots exposed, without experiencing material injury. Such times we often find in September and October, February and March, and at certain times at other seasons. But the opposite objection arises; the ground is cold, and the roots, though not perhaps entirely dormant, are but little active. Again in the spring

the roots are very active, and are ready to draw water almost as soon as the tree is transplanted; but—again that implacable *but*—the wood has become more soft and spongy, and the atmosphere warm and drying, and evaporation goes on so very very fast, that the advantages of the newly pushing roots is more than balanced.

In whatever way we look at the subject, this conclusion is apparent: that to be successful with tree-planting, evaporation from the branches must be checked until the new fibres push. Let this be a recognised principle.

What will our readers say to the doctrine that deciduous trees can be removed more successfully in May and June than at any other season? But it is a fact. It must be done in the usual way. The leaves have to be stripped off, and the young growth shortened-in; evaporation is arrested, and the young roots, rejoicing in their newly-found liberty, push forth in all directions, and sustain the tree at once. New buds and leaves start immediately, and the tree goes on apparently with very little check. [We would certainly prefer September.—ED.]

Over and over again have we seen, during the past few seasons, trees taken up in May and June, and in August and September, and with the most complete success.

It is more trouble, to be sure, to prune and strip the leaves from the trees, and the whole care required to control this evaporation costs more than trees planted in the usual time and way; but to many a man, labour is worth more in April, when everything has to be done at once, than it is in June, when nearly all is finished up.

Without making this chapter much too long, it is impossible to go into the details of this idea as we would like to do. The reader must apply the principle for himself. He must check evaporation till new roots are produced, either by syringing, or shading, or pruning, or disleafing; he must do all he can to insure a rapid formation of new fibres. He must, in fact, experiment and observe a little for himself; and when he, as he soon will be, becomes master of the idea, he may remove things at any time of the year when he has the most leisure and inclination.

G. W.

CALENDAR FOR THE MONTH.

Azaleas and Camellias will now occupy sheltered places out-of-doors. Do not allow the sun to shine on the pots, as it quickly absorbs all the moisture from the ball, and frequently kills the plants in a few hours. Attend well to keeping them supplied with water, washing the plants overhead occasionally on the evenings of hot days.

Auriculas.—These plants must now receive attention, after lying dry and comparatively dormant for the last two months. The plants will now require to be shaken out of the old soil, and repotted, using moderately rich but well sweetened soil, to ensure a good growth during autumn, and bloom next spring. After repotting, keep the plants rather close in a frame or pit for some little time; give air by degrees, and in proportion as they draw root until they can be entirely exposed

to the air, excepting to heavy rains, to which they should never be subjected. Aphides must not be allowed to infest them, or dead foliage to remain on the plants.

Carnations and Picotees.—These being unprecedentedly early, a great advantage is gained this season, by the layering being completed in good time. The unusually early blooming was over here by the 15th of July. Watering must be carefully attended to; this and cutting away dead foliage are the only requisites this month.

Conservatory may now be all but cleared of surplus plants, to allow the proper inmates a full share of light and air. Now, also, is a good time for repairing and painting, if required. A few Ferns, Palms, stove plants, and Achimenes may be introduced as wanted.

Cucumbers.—A crop for the autumn and winter supply should now be sown; when up, keep the plants as hardy as you can, as they will withstand mildew much better if grown hardy when young, and will make much longer-lived plants.

Dahlias.—Water freely during dry weather, and in addition give the plants a good sprinkling overhead every evening, after the sun has left them. Go over the plants regularly twice a week, and remove all superfluous small shoots and buds; this must be done with care and judgment, only cutting away a little at a time, leaving large varieties full for a time. Secure the side shoots by tying them to stakes, in doing which draw them away from the centre, to prevent weakness by overcrowding of the shoots. Earwigs should be got under as much as possible, to prevent the annoyance generally occasioned by their disfiguring the finest blooms.

Flower Garden.—The flower garden will now be in full beauty, and, as great attention is now paid to arrangement of colour, any defects in composition, or the substitution of newer and better plants should be carefully noted, and stock procured for next season. Variety is often more pleasing than the mere display of colour; we cannot therefore too strongly insist on the employment of herbaceous plants, as well as of the different shades of scarlet, blue, and yellow. For certain situations the primary colours are indispensable, as, for instance, when there are large spaces of Grass adjoining the beds, to counteract the effects of which warm colours are decidedly required; but for a general garden, containing a number of beds, and especially if on gravel, more variety than is usually seen will prove more agreeable to the majority of persons. The great beauty and order of a flower garden depend much on the training and management of the various plants, whether growing in beds, or on walls, trellis, vases, &c. Let everything be kept, therefore, to its proper limits as to training, the Grass kept close, and the gravel free from weeds and frequently rolled, and you will go far towards making your garden perfect. The propagation of plants for another year should commence as soon as the cuttings can be spared. There is no better plan for all the scarlet and variegated Geranium class than putting the cuttings in on well prepared sandy soil on a south border, or indeed in any open place, fully exposed. Verbenas strike equally well the same way, with the addition of a handglass over them.

Kitchen Garden.—The main breadth of Cabbages should be sown at

once on well prepared^s soil; the old dates used to be about the 12th, but any time from the 1st to that date will secure you good plants, not liable to run to seed. A supply of Cauliflowers for standing over the winter in frames and handglasses should be sown between the 20th and the end of the month, and the true Bath Cos, and some good hardy Cabbage Lettuce, at the same time. As the summer crops of Peas, Beans, Cauliflowers, and Potatoes, are cleared off, fill up every available space with Coleworts, Winter Greens, Brussels Sprouts, Broccoli, &c., the Potato disease is making great havoc this season. Greens of all kinds will be more than useful next spring. Turnips, for winter, may be sown up to the middle of the month; also Spinach and a few Horn Carrots. Earth up the forwardest Celery.

Peach-house.—As the wood becomes ripened, which may be known by its assuming a reddish brown tinge and leaves becoming yellow, take off the sashes and fully expose the trees. The late houses should have their foliage attended to to keep down insects and assist the ripening process, until the trees, as above, will bear exposure.

Pelargoniums.—As soon as the plants have broken sufficiently, they should be shaken out of the old soil, and, after having been disrooted, put into as small pots as they will conveniently go into. Drain carefully, and place some vegetable fibre over the drainage, so as to prevent stoppage. After the plants are potted they should be placed in a frame or pit, and be kept close for a time, and be well shaded during the day. Watering is an operation at this time requiring very great care. The mould must be kept moist but not sodden; still it is necessary when the plants are watered that they have a quantity sufficient to go quite through the pots. When the plants have taken root give air, but use shading only in the middle of the day, or when the sun is very powerful, say for a week or so, when it may be kept off entirely, and air given more freely.

Pinery.—The best grown plants should now be potted into fruiting pots, if not done, for the earliest supply next spring; use pure loam, and well drain the pots; they will then take water often without its injuring the soil. A portion of the stock may remain for two or three weeks longer to keep up a succession. Suckers and succession plants will also require potting, and may have, at this season, a good shift, as they will grow freely from now to the end of October, and should not be potted again.

Pinks.—These should be planted into beds that have been prepared for them, as soon as sufficiently rooted. The beds should have been trenched and mixed with good rotten manure, and some loam if the soil is light. By early planting, Pinks winter better and produce larger flowers. The remainder of the stock should be planted out in spare beds much nearer together. Look well after the grubs, so very destructive to the young plants at this season.

Vinery.—The late crops should be kept growing by a moist atmosphere. Keep down insects, and apply fires to Muscats on wet days. The sashes may now be taken from the earliest forced houses, as the wood, by this time, will be well ripened, and the foliage beginning to decay, and of no further use for supplying nutrition.



Phlox.

1 *Julia Reussel* — 2 *Stavenur d'in Ara*
3 *La Volupte*

PHLOXES.

[PLATE 155.]

IN many classes of flowers we are almost entirely indebted to our continental neighbours for new varieties; the climate is so much more favourable to the ripening of the seed, that they are able to effect that which we find impossible. All the new Roses, without exception, are French; for though some one has said that *Devoniensis* was an English raised Rose, it is a mistake; the variety was raised in France, bought by Messrs. Lucombe, Pince, & Co., and by them given its name. Hyacinths are all Dutchmen, Asters principally German or French, Verbenas and Chrysanthemums largely so, and the varieties of Phlox which have for the last few years been introduced, are "furriners" also—much to the discomfort of our gardeners, whom the names confound very much. It would really be a much more sensible plan, when things are introduced by any English grower for him to have a rechristening; for what can a plain John Bull make of such names as "*Souvenir de la Reine d'Angleterre*," or "*Souvenir de l'Exposition*?" Why, our old man thinks he's no end of a scholar because he can talk of "*Chany Austens*" and "*Cranthius*" (a free way of rendering China Asters and Chrysanthemums); imagine, then, his attempting such names as these. If the great growers, or rather introducers of French productions were to do this, they would greatly add to the comfort of many a gardener, and, we may add, to many a master, too, whose ears are horribly jarred and his risibility often excited by the marvellous attempts his man makes at getting to windward of these French words. This is a digression, and yet we must make another. What a curious thing it is that the odd bizarre coloured things seem all to be French; fancy Dahlias, striped Verbenas, spotted and odd coloured Pelargoniums, are all of French extraction; they are a very "bizarre" people, but this cannot affect their hybridising; but we suppose they are fond of such things, and so try to obtain, by a system of crossing likely to produce it, these odd and striking things. Be the reason what it may, the fact is there, and when in any class of flower you see something peculiar in its markings, you may give a tolerably shrewd guess that it is French.

But "*revenons à nous moutons*," the "*moutons*" in this case being Phloxes. If any of the readers of the *FLORIST* are possessed of its back volumes, they may see something of the rapid strides that this flower has made, by referring to the volumes for 1848 and 1854. In the former year *Cœlestis* and

Nitens were figured, and considered then to be a great addition, and in 1854 Countess of Home was figured in Mr. Andrews' usual style, and most persons were struck with the vast improvement made in the six years. At that time a list of 41 varieties was given, comprising all the best sorts in cultivation. Of these very few are now grown, our continental neighbours having succeeded in vastly improving them in the five years that have elapsed since then, a fact which we saw ourselves, when last month we paid a visit to the Royal Nursery at Slough. A very fine collection was just then coming into bloom, showing great variety in colour, beautiful shape, thick waxy-looking petals, and dwarf habit. Of some of these we took notes at the time, and among them are those in the plate now presented to the patrons of the FLORIST. Julia Roussel is dwarf in habit, very round, thick petalled, with a crimson eye. La Volupte is quite a new shade of colour, and forms a striking contrast, in its richness of colour, to the white ones. Souvenir d'un Ami, though not so bright, is still of a very pleasing tint. Quite as good were Vicomte Adalbert de Beaumont, bright rose; Augustine Lierval, white with cerise eye; Model, bright lilac; Madame Suer, very like Julia Roussel; Blanche, new, pure white, about 2 feet high; Roi Leopold, white and lilac striped, very pretty; Madame Rougiere, pure white, crimson eye, of very dwarf habit, and only 12 inches high. We must, for a description of the others, refer our readers to the accompanying list, which contains nearly every good variety in cultivation. It is, however, only fair to add that owing to a desire to give as many varieties on the plate as possible, it has not been found practicable to give anything like a correct idea of the size and beauty of the spike. It were needless to say anything as to the method of growing so hardy a perennial; they are easily increased by cuttings, struck in the summer, or division of the roots; while for their aftergrowth, they require nothing more than the ordinary treatment of herbaceous perennials. Like everything else they will repay good treatment and careful management; but, unlike a good many, they will bear much hardship. Our lady friends will bear us out in saying that they form a very attractive feature in a well put together bouquet. While they will live in any part of the garden, we think a shady border will bring out their tints better, and is perhaps more in accordance with their original habitat, North America. We are sure that any lover of this tribe may very safely add to their stock those we have mentioned, while if there are others who do not grow them, an order to any respectable nurseryman for a good dozen, will be found money well laid out.

Deal, Aug. 22.

D.

HERBACEOUS PHLOXES.

- Augustine Lierval, pure white, crimson centre, dwarf compact habit, large spike, very distinct. 18 inches.
- Admiral Linois, bright rose, crimson centre, free, extra fine. 30 inches.
- Beauty of Milrig, white, small flower, very compact. 2 feet.
- Blanche (new), pure white, compact habit, fine form. 2 feet.
- Cristine Marjette, soft lilac, free, good habit. 3 feet.
- Countess of Haddington, purple lake, dark crimson centre, small flower. 2 ft.
- Claytoni, white, lavender centre, very distinct, fine form, good habit. 1½ ft.
- Comte de Chambord, white, very compact flower. 2½ feet.
- Countess of Morton, pure white, good habit, large flower, and free. 2½ feet.
- Countess of Ellesmere, white, lilac centre, good habit, fine form, very free. 3 feet.
- De Lardenella, white, lavender centre, compact habit and free. 1½ foot.
- Eliza, mottled rose, good habit, very free. 2½ feet.
- Enchantress, French white, rose centre, very free. 3 feet.
- Empereur de Tous les Russias, dark rosy purple, very distinct, good habit and free. 2 feet.
- General Brea, rosy lilac, good habit and free. 3 feet.
- Genevieve, lilac, compact habit, very free, good form. 2 feet.
- Julia Roussel, white, large crimson centre, fine form, large flower, good habit, the finest of its class. 2 feet.
- L'Ami Georgin, soft lilac, fine habit, large spike and free. 3 feet.
- L'Enfant Prodigue, rosy lilac, large spike, good habit, free. 3 feet.
- La Volupte, soft rosy carmine, very fine, good habit. 3 feet.
- Louis Guerard, bright ruby, compact habit, large spike, the finest of its class. 1½ foot.
- Louis Noisette, rosy lilac, crimson centre, extra large spike, very fine. 3 ft.
- Louis Germain, lilac, crimson centre, dwarf compact habit, free. 1 foot.
- Le Gamin de Paris, carmine, crimson centre, extra large spike, compact habit, free. 1½ foot.
- Madame Sueur, French white, crimson centre, compact habit, very distinct. 15 inches.
- Madame Rendatler, white, lilac centre, very free, good habit. 2½ feet.
- Madame de Vatrav, dark rich rosy purple, large spike, very free. 2½ feet.
- Madame E. Lambie, white, dark lilac centre, small flower, very pretty. 3 ft.
- Madame Rougiere, pure white, carmine centre, dwarf habit, large spike, ex. ex. fine. 1 foot.
- Madame de St. Innocent, dark rose, very large spike, good habit, free. 3 ft.
- Madame Jolly, mottled lilac, very compact habit, large spike, very fine, ex. fine. 1½ foot.
- Mons. Forrest, rich crimson, compact habit, free and very fine. 1½ foot.
- Marie Cubertier, French white, crimson centre, compact habit, extra large spike, very fine. 15 inches.
- Maria Lamareq, white lilac, centre very distinct, good habit, free. 2 feet.
- M. Vatrav, French white, rose centre, small neat flower, good. 2 feet.
- Omni flora compacta, white, very dwarf, and free. 1 foot.
- Princess, lilac, large spike, good habit, free. 3 feet.
- Rigoli, mottled rose, crimson centre, very free, very fine. 1½ foot.
- Rubens, rosy lilac, crimson centre, compact habit, large spike, ex. fine. 2 ft.
- Rubra, purplish crimson, strong habit, very free. 3 feet.
- Roi Leopold, white and lilac striped, very pretty. 3 feet.
- Surpasse Maria Bellanger, rosy carmine, crimson centre, good habit, very free, ex. fine. 1½ foot.
- Surpasse Madame Rendatler, white, crimson centre, very compact, large spike, and free. 3 feet,

Salliere, rosy purple, large spike, very free. 3 feet.

Souvenir de Madame Poivre, white, carmine centre, good habit, very free. 3 ft.

Souvenir d'un Ami, rose, crimson centre, compact habit, very free. 1½ foot.

Veronique, lilac, very robust habit, large spike. 3 feet.

Vicomte Adalbert de Beaumont, bright rose, crimson centre, large flower, very free. 2½ feet.

ECONOMICAL CULTURE OF FRUIT TREES.

IT is a question of importance as to the precise form of fruit-tree most profitable to grow—whether standards, half-standards, or dwarfs; and again, whether trained or untrained. For small gardens, the dwarf bush form of Apples and Pears has long superseded the standards formerly planted, and we have now to consider whether any economy can be introduced into the system by training. If dwarf trees are preferable, on the score of economy, to standards on a small scale, they must be equally so on a large one, and we therefore must look at the question as to its bearing on fruit culture in a general point of view. For extensive orchards tall standard trees will still be planted, as such orchards are generally laid down to Grass, and require but little care afterwards; and the same may be said as to planting Apples and Pears in hedge-rows or banks. But where the finest fruits are required there will be little difficulty in proving, that the same quantity of fruit can be obtained on a smaller space of ground than is required to produce the same quantity in orchards; and even with the market-gardeners' orchards, where the ground between the trees is filled up with Gooseberries and Currants, or vegetables, we shall have to show that by proper management more can be obtained from the ground by cultivating one kind of fruit only, than by attempting the mixed plan.

But, to obtain the greatest produce from a given space of ground, the usual plan of confining Apples and Pears to the height of five or six feet must be abandoned. As Dean Swift once satirically remarked to an overcrowded mob, who were crying out for more room—"Why, you have it; there is plenty upwards." So the remark may apply to fruit growers with a limited space only—you must look upwards; that is to say, you must carry your trees up to fourteen or fifteen feet in height, to enable them to carry crops to repay for the cost of planting and alter management. To explain our views more fully, let us take an acre of ground, which is to be planted with Apples by themselves. We should select untrained dwarf trees, and plant them in rows from twelve to fourteen feet apart, in the direction of north-east and south-west, or north and south, as near as the ground would admit, planting the trees from eight to ten feet apart; but in this respect some allowance must be made for the size the trees will hereafter attain, some kinds growing much stronger than others. The first season some training will be necessary, as two shoots from each tree should be tied out to stakes in the direction the rows run, and as wide as three or four feet apart.

(To be continued.)

LAYING OUT SMALL GARDENS.

THE following common-sense observations on this subject are abridged from an American publication devoted to gardening; they may not be without interest to possessors of villa gardens in this country:—

“Persons who have small places are often puzzled as to the best way to lay them out. A too common error is to attempt too much. Having read of fine specimens of taste, or imbibed a love of the art from some superior work on landscape gardening, or some friend’s extensive country seat, it is quite natural to wish to make the most of a limited plot. And this making the most of the thing implies a good deal, while it leads into many errors. The relation of the means to the end should never be lost sight of, and nothing attempted that has not some well-defined object.

“When a house is built, the first object is to connect it with the public road, with the stable, and with the offices. In laying out these roads convenience and beauty must be consulted. The first suggests to go ‘straight on;’ the last whispers, ‘curve gracefully round.’ Convenience being the chief object, must be respected; and whatever deviations from the straight line are allowed to the importunities of beauty, should be done from a seeming compulsion. Hence the curve should have its salient point filled with a heap of roots or rocks, or a thick mass of shrubbery; or, what is still better, the soil should be raised to form a rise or knoll, as if the road had been taken around to avoid the obstruction. Much may be done for a small plot by this plan of making the surface irregular. A dead level or a regular plane looks smaller than it really is. Around the house it should be so, as a sudden transition from the delicacies of art in the building to the roughness of nature in the grounds is offensive; but at a little distance off very lively effects may be obtained by taking off a little soil here and adding there, so as to make the surface broken and irregular. The effect may still further be increased by planting the rises and leaving the lower surfaces bare. To still further give the idea of extent, shrubbery should be planted in irregular masses to conceal the fences and boundaries, and many objects on the place itself may be partially concealed by planting all with a view of exciting the curiosity to know ‘how much more is beyond.’ Besides the mere purposes of shade from the sun and screen from winds, large growing trees should not be employed in decorating the property, as all large objects lessen the apparent size of the place. Besides, small and medium growing trees afford a greater variety.

“The walks being decided on with a view to convenience and beauty, and the general idea of giving the plot the appearance of as much extent as possible being kept in view, it may be useful to give some details respecting the preparation of the grounds. It should be remembered that Grass and trees are not only required to grow therein, but that they must grow well. The top soil is often covered by refuse from the excavations, trusting to heavy manuring to promote fertility. But this is a too slow and expensive process. The surface soil should in all cases be saved, and replaced. Also, where it is necessary to lower a

piece of ground, the top spit should be saved to be used again. The depth of the soil is an important matter, both for the trees and the lawn. It should be at least eighteen inches deep. In shallow soils Grass will burn out under a hot sun. In a soil eighteen inches deep a lawn will be green except in the very hottest weather. For the sake of the trees, also, the ground should be not only deep but rich. Life is too short for it to be an object to wait too long for trees to grow, and planting large ones is an expensive as well as unsatisfactory business. A tree in a rich and deep soil will grow as much in one year as in five in a poor one. So, in preparing a lawn, it is fortunate that, while aiming at the best effects, we are helping our trees also.

“ While on the subject of improvements, we may add that the latter end of August is one of the best seasons of the year to transplant evergreens. The young growth of the past season has got pretty well hardened, so as to permit of but very little evaporation, and the earth being warm new roots push with great rapidity, and the tree becomes established in the ground before the cold autumn winds begin.”

AN ANALYSIS OF ROSES, OLD, NEW, AND NOVELTIES, FIT FOR SHOW PURPOSES.

SEVERAL amateurs and gardeners in different parts of England, and one nurseryman in America, having addressed questions on this subject, or on some particular Rose or Roses, I am reluctantly obliged, with great apologies, to request so soon a place in your much read and highly valuable pages. I may here say, before I begin about Roses, how much I am indebted to your *Florist* for Raspberry information. I have had a noble crop this year, and the canes are now seven feet high, and of the greatest substance. The avidity with which your work is read, and the eagerness with which it is looked for, on the first of each month, confirm me in the belief, that, in time, the number of copies published will be very great.

I will now speak first of summer Roses (all of which here are on the Brier) fit for show purposes, and some of which are absolutely essential. Pure white: Clementine—Blush, Adele Prevost, a fine Rose, Cynthia, not so strong in habit, but is of a very fine Hollyhock shape, Juno, very large—Rose coloured, Charles Duval, Charles Lawson, Paul Perras, are fine bold Roses of the most robust habit; Volupte is large and perfect and refined; Dometille Bear is very fine—Pink, Coupe d'Hébé, Sanchette, Bruxelles, are all beautiful Roses—Purple, Frederick II. is large and of a splendid colour. Who will raise a Hybrid Perpetual of the same colour and of the shape as Comte de Nanteuil? Under shade or a north wall is the place to preserve its fine colour. The sun soon slates a purple Rose. Different shades of crimson and purple crimson, Paul Ricaut, Ohl, Boula de Nanteuil, Kean, Triomphe de Jaussens, General Jacqueminot (H.C.), D'Aguesseau, are a noble lot of Roses, and all valuable for their colours—Variegated Roses, Bizarre Masbrée, Tricolor des Flandres, Madeline, a very curious Rose, essential at Bath

for ball bouquets for the young ladies—Pure slate, Schismaker, another curiosity, useful in large collections to diversify eternal rose colours, but it is not equal in shape to any of the former—Carmine, Brennus—Yellow, Persian, Harrisonii, both too small, except where shown in a collection—Moss: White Bath and Crested are very beautiful, Wassenauer is a fine light crimson, Mosseuses is the largest of all Mosses, blush, and is fine. The two first are delicate but the best, and the two last are the most robust. Crested, when expanded, shows its family more plainly than any other Moss Rose. Madame Audot, Felicité Parmentier, La Seduisante, are highly beautiful flesh Roses, but they have not this, their first year, been large enough to cope in size with the large and noble Roses above, and therefore amateurs must use their own mind in buying them. Felicité won several times at the National Show in 1858. The Persian Yellow and Harrisonii bloom well, and abundantly on both stocks. These, the Moss Roses and Damask, must live extra well, and be kept well watered.

I will now speak secondly of autumnal Roses for show purposes. Moss Roses, Ory, rose coloured—Damask, Mogador, Rose du Roi, both crimson; they require the highest cultivation—Hybrid Perpetuals, Salmon pink, M. Regnier, William Griffiths, Auguste Mie, all good on both stocks—Rose coloured, good here only on Manetti, La Ville de St. Denis, Comte de Nanteuil, two magnificent and perfect show flowers; M. de Manoel, Jacques Lafitte, Duchess of Sutherland, Elegante Nouvelle, medium sized, but perfect in shape, Louise Peyronney. Good here on both stocks, Cambaceres, Angleterre, Rougemont, Baronne Prevost. Good on Briers, M. Damage, Lælia, Prince Imperial, Adelaide Fontaine. Lælia and Peyronney are best, when cut before ripe, and shown as incurved Roses; the colours and class of petal are the same as Auguste Mie's. The whole of the above are most noble Roses. The two first and Adelaide Fontaine are grand Roses, perfect in shape. Crimson and its shades on a Brier: Raglan is in all respects the best; Sir John Franklin. Good on both stocks, Géant des Batailles (best on Manetti), Triomphe de l'Exposition, Jules Margottin, Prince Leon, this Rose is not strong enough in habit on either stock, but it is thoroughly first class. Good here on Manetti only, Laffay, Norfolk, Paul Dupuy, this last Rose also wants freedom of growth. Good on a Brier here, Triomphe de Paris. Red or shades of red, good on both stocks: Gloire de France, Bachmeteff—on a Brier: Pius IX.—on Manetti only, Lion des Combats, a fine dark colour, much like Beaux Arts; its shape is not so good as that of many others, but you must have it for its size and colour. White outer petals and blush or flesh centres, Madame Vidot is the most perfect, Duchesse d'Orleans, Paul's Victoria: these bloom beautifully on Manetti. On a Brier, Madame Rivers, uncertain, but lovely; Madame Phelip, hardy and lovely. On both stocks, Caroline de Sansal, Madame Knorr, both are excellent and fine: Victoria blooms freely and finely here on Manetti. Scarlet, on a Brier, Monsieur Ravel. On Manetti, General Jacqueminot: Eveque de Nimes is a first-class medium-sized micropetalous scarlet Rose; I have two plants on a Brier, but cannot speak at present with certainty of its habit; it appears to be of the habit of Rebecca, which latter Rose is not free

enough to please me, though highly beautiful and thick in petal. I have not included Simpson and Place in their class of colours, because they are not large enough to put with huge Roses: they are perfect in form, and bloom beautifully here on Manetti only. Dark Roses, or radiant and dark; all are on Briers except Willermoz, and all are small or medium sized, but very beautiful: Patrizzi, Arthur de Sansal, Noir, Moskowa (the largest but hollow), Napoleon: they are useful for showing in large collections.

With regard to Bourbons, I will observe two or three things. They are best on low stocks, and better fall than summer bloomers. The dark and purpureous Roses, such as Reveil, Paul Joseph, Montijo, Proserpine, Dupetit Thouars, have bloomed here well all summer, close under a north wall. Paul Joseph and Proserpine are old on their own roots, and bloom continually; they are first-class medium-sized Roses of great substance and good form. The first, I think, is the best of all dark Roses. Leprestre, brilliant, is not equal in habit to Dupetit Thouars; Reveil is the most superb; Montijo is lovely, and thicker than any Rose in petal; Louise Odier, Paxton, Lecoq, Acidalie, Vicomte de Cussy, are good free bloomers, early in summer, in scorching situations. None are equal in size to the above Hybrid Perpetuals, except Malmaison, blush, which is the finest of all, and good.

China: Mrs. Bosanquet, wax-like flesh, a good and useful Rose. Teas: Gloire de Dijon, orange and buff, is good on both stocks everywhere, and at all times; Devoniensis, good on Manetti, but better here old on her own roots. Noisettes: Cloth of Gold and Isabella Gray are best if you can grow them: mine look like Italian greyhounds on the rocks of Labrador, and have gone blind: Solfaterre and Lamarque are easier managed and beautiful: Triomphe de Rennes, a smaller and more perfect Dijon, orange and canary or buff, is really a gem.

New Roses: Beaux Arts is a large dark Rose, free bloomer, of a plum purple colour; its habit is apparently not equal to the size of its flowers; perhaps, on stronger stocks, it may be more likely to bear such large and abundant blooms. Marie Portemer, red, is good habited, and excellent: I hope she will supplant those tender Roses Chipetouzikof and Madame Masson. Reine de Denmark, blush, is the finest I have yet bloomed of the novelties: she is splendid. Gloire de Lyons is a great favourite, fiery centre, and plum purple, excellent in habit. These three, and the two Bourbons, Monsieur Jard and Dr. Berthet, a rich crimson, are all that I have seen sufficient of to bear the responsibility of recommending. The others have been making nice little bushes, and doubtless will, one day, give me as great pleasure as the above have done. If any of the numerous novelties not yet bloomed should do well, as far as I am concerned, the public shall not be kept in the dark.

All of the above Roses, summer and autumnal, if highly manured and supplied with water, will give you great satisfaction. I have left out some beautiful Roses, either because I have not sufficiently proved them, or because they are weather Roses, and are only occasionally good, or because they are dwarf habited. With the exception of summer Roses, Roses do better here, on the whole, on Manetti stocks. It is fair,

however, to observe, that the Manetti stocks sent to me are strong, young, and good, but the Briers are not always so. Some are dry-rinded; others are like knob-sticks, with two thin roots, like the "feelers of a lobster." Before, therefore, you can draw a just comparison, you must look into this. In my rich, friable garden, so highly manured, the Roses on Manetti have bloomed beautifully. They began their second series about the 24th of July, and are now (the 8th of August), full of large and beautiful blooms. After their first bloom, all Roses here were supplied with a shovelful of black manure. The earth was scraped away, the manure put in over the earth on the roots, and then, having been drowned with water, the earth scraped away was replaced. The Manetti Roses are earthed up, like Potatoes, over the bud union, a thing most essential to be done. Manetti Roses require a deal of manure to supply the immense exhaustion; and, to prevent them going blind, you must not cut too hard. I cut them all about one foot high the Saturday after Good Friday, to meet the 22nd of June, and I thank Mr. Milne for the account he has given. The present bloom, however, of autumnals, is far superior. The Roses are larger, brighter, and more numerous. The manures which I use are abundance of wood ashes (retainers of moisture), and decayed horse and pig manure mixed with road scrapings. With plenty of this, and careful summer pruning and watering, I get a quick and prolonged succession of these glorious flowers.

Allow me to thank Messrs. Cranston, Rivers, Gill (of Blandford), and Davis (of Newbury), for the superb materials sent to me this year.

Aug. 8.

W. F. RADCLYFFE.

P.S. *August 24.*—Portemer and Eveque de Nimes, budded on a brier two months ago, have fine buds, clean foliage, and appear to be of good habit.

AURICULAS AND THEIR CLASSES.

A NOTICE which I inserted in "Gossip for the Garden," having elicited some letters on the subject of which I wrote, I am desirous of putting the same matter before the readers of the *Florist*, the sole object for which I contend being the best means of advancing the cultivation of this lovely flower, the chief point at issue being whether the system of showing in the north of England, and the rules by which the judges seem to be regulated, are those likely to effect this object. Anyone who has grown them is, of course, aware that few flowers have made less advance, and that in no tribe of florists' flowers are there so few additions by seedlings; and it is a matter of some importance to determine whether the acknowledged difficulty of raising seedlings, and propagating them when raised, is the only cause of this. If a good seedling Verbena or Geranium is produced, in two or three years' time not a garden but what possesses it; an Auricula raised at the same time is still in the raiser's hands, and will not probably leave them for a year or two

longer. But it would appear from reports of shows held in Lancashire, which is looked upon as the home of the Auricula, that the system of showing turns upon two points—the quality of the edges, and the size of the individual pip; the character of the plant and the beauty of the truss are left out of sight, and hence a long-legged flower like *Imperator*, and faulty in many other respects, takes the lead over many a better flower, while to effect this a truss is often reduced to two or three pips.

They, on the contrary, accuse us in the south of sacrificing everything to colour, and ridicule the idea of our new flowers coming into competition with the older varieties. Florists know that this is not the only point on which “North and South” disagree. Pinks with two rows of petals, little better than a single *Dianthus*, were in favour with one; while *mops* with no regularity were said to be *the* thing in the south. Again, Tulips, in the north, were once only looked at for colour, and a stained bottom was not thought fit for rejection. Intercourse (so facilitated by railways) has led to juster views on these points; and so I cannot but think if we were able to bring north and south together on an Auricula stage, we should do good service to the cause. I do not by any means wish to lower the taste, but I do want to see somewhat more liberal views taken, and specially in this matter of the *edges*. Very similar is the division amongst Dahlias into show flowers and fancies; it is only the dealers in them that can rightly determine which is which. I do not desire therefore to see such a flower as Lancashire Hero or Chapman’s *Maria* despised as a “*Mongrel*” or a “*Chaney*,” nor do I want bad-shaped, or thrum-eyed, or dirty-eyed flowers recognised as leading varieties. Some growers say those flowers I have named are only fit for the dung-heap, while others laud them up as the perfection of an Auricula. I am not, however, without allies who take my view of the question, and I should be very glad to have the matter talked over and entered into practically. I have, therefore, a proposition to make—that an Auricula Exhibition be held in London in April next, somewhere about the 20th; and that, as it would be desirable to avoid expense as much as possible, the Royal Botanic Society be solicited to allow it to take place at one of their spring shows, the rules, &c., to be determined on as soon as we can see our way clear into the matter. The circle of growers is of course circumscribed (though I am in great hopes that it is widely increasing), and therefore we do not expect to offer very great prizes; this will, however, be entirely regulated by the number of subscribers and amount subscribed. I should be glad, therefore, if any who are interested in the growth of this lovely flower would be good enough to communicate with me, to the office of the *Florist*, addressed as “D.,” and I would feel obliged if, at the same time, they would give their opinion on the following points:—

1. Whether the time and place are considered desirable.
2. What should be the style of showing.
3. (Important!) What amount they would subscribe for the purpose.

My own stock is so small, and my time so limited, that I shall not (most likely) be able to exhibit, but I shall be very glad to take any trouble in the matter that I can; if it outgrows my capabilities, I must

give it up to other hands. I am glad to be able to say, that already we may count on the support of two of the largest public growers in the kingdom. Rose shows are a great success; Dahlia shows thrive, and Carnation shows are prosperous. Why not an Auricula show? Let the lovers of the flower manifest their zeal, and the thing will be done.

D.

Deal, August.

WHY DO GRAPES SHANK?

MUCH as has been written on this subject, we venture to again moot the question, having had the above query addressed to us for the hundredth time a short time back.

Why, then, do Grapes shank? Let us carry the question further, and ask why do Peaches and other wall-fruit fall off?—why do Figs turn yellow and shrink away?—and why, in a hundred other cases, do fruits of all kinds fail in reaching maturity?—all of which causes of failure, in some degree or other, are attributable to the inability of plants to carry onwards their crop of fruit to perfection, through causes weakening or obstructing their powers of vitality, and preventing the proper functions of those organs which supply the fruit with nourishment.

Again, let us go back to our first question, why do Grapes shank? One gardener states that the borders are too wet; another, that they are too dry; a third says it is for want of a reciprocal action between the roots and stem, the former being often in a very cold medium, while the stem and foliage are luxuriating (?) in a tropical climate; another maintains the cause to be ill-drained borders and want of bottom-heat (!) to the roots. Then it is stated to be caused only by house treatment;—want of air, too much night-firing or too little, or the house too damp, or insufficient light, or too heavy cropping: these are a few of the reasons which, from time to time, have been given as the cause of Grapes shanking.

Now we have seen Grapes shank under very different and opposite circumstances. They will shank when growing in pots, with their roots, of course, in the same temperature as the top. Indeed, we have seen shanking take place under each and all of the circumstances mentioned, and therefore we must not look at one cause in particular as doing the mischief, and overlook the others. To be brief; Grapes will shank whenever the general health of the Vines is disturbed, and whether caused by one or more of the reasons so frequently given as causing the mischief.

To ensure Grapes from shanking the Vine must be healthy, and there must be no interruption of the healthy action of all its parts. The supply of sap from the roots must be uniform, and equal at all times to the demand called into action by the leaves; this infers that the roots must be kept in a congenial medium, where their extension can go on progressively and they can take up their supply of food without intermission: this bespeaks a well-drained and properly

constituted soil as the medium for the roots to grow in, in which, and under ordinary circumstances, the temperature may be left to take care of itself. Next, the proper assimilation and distribution of the sap, supplying food to the plant and fruit, will depend on the leaves having the power of exercising their functions; this is the most important point to be considered in the cultivation of the Vine, as regards treatment. The leaves must grow in an atmosphere where their peculiar functions of elaboration and exhalation can be properly performed. To this end, supposing them grown under glass, the house must admit sufficient light to enable the leaves to act freely; the air, too, of the house must not be too moist to prevent them from parting with a portion of their natural moisture by perspiration, or you interfere with an important function of these organs, and on which health mainly depends—(What have the advocates of continually syringing, damping down, and shutting vineries up damp and close, got to say to this?)—nor must it be too dry, to cause the leaves to part with their water too rapidly, thereby diminishing them in size and substance, and inducing the attacks of insects. The air, moreover, must circulate freely and continuously through the foliage, so that each leaf, and all parts of its surface may be exposed to its influence in motion, and this by night as well as during the day. (What about close glazing and close shutting up by night?) The night temperature must by no means equal that of the day. The temperature of fruit-houses should be many degrees lower by night than by day, and rather dry than moist. Next, you must not over-crop; for if it does not induce shanking, through overtaxing the vitality of the Vine, you get an inferior production. In ripening fruits, take nature as your guide. In Grape countries, the Vines flower during the hottest months of the year, and the fruit ripens when the day temperature has sensibly declined and the night temperature more so. Comparatively, does not this teach us the proper treatment to follow? We have never known forced fruit of any kind but what was always greatly improved in size, colour, and flavour by ripening slowly, and in a moderate temperature.

We have said nothing about the temperature of the soil for Vine roots beyond giving it as an opinion that, with properly constituted borders, the temperature might be left to take care of itself. But, for Grapes ripening before June, means should be taken to keep the borders (if outside) dry—(They will be naturally damp enough, from the effects of the preceding autumn's rains)—by covering them with leaves or Fern—not with a mass of materials in a state of rapid fermentation, as is sometimes done, which produces more mischief than if the borders had no covering at all—or by the application of hot-water pipes. We have stated enough to show what is required for the roots and Vine generally to prevent shanking; the precise application must rest with those concerned.

G. F.

[We fully endorse these assertions.—ED. F.]

CROM CASTLE, NEAR LISNASKEA, CO. FERMANAGH, IRELAND.

THIS the residence of Lord Erne is situated five miles west of Lisnaskea. The present building is of modern erection; the castle and grounds are partly surrounded by Lough Erne; the pleasure grounds and parterre lie north-west of the mansion. In front of the castle is a geometrical flower-garden laid out on gravel edged with Box; the centre is a raised flower-bed bordered with a bold edging of stone, and planted with tall-growing Geraniums; the corresponding beds are planted to form a contrast in height and colour, and looked very effective. On each side of this garden is an arcade covered with Roses, and noble vases filled with large Geraniums (scarlet), and light Fuchsias are freely interspersed in suitable positions. From the bottom of the flower-garden broad gravel walks lead to the old castle and lake respectively; the view from this part is extremely grand. Following a long avenue, each side of which has a row of Hollyhocks, we reach the old castle, situate on the margin of the lake, and a considerable distance from the modern residence. This castle is a place of great historical interest, the wars which Irish history relates having so frequently converted these chieftain residences into besieged forts. The lake or Lough Erne is here of great size and highly picturesque, and, as it partly surrounds the grounds, the view of it, from all points in the neighbourhood, is grand and striking. In the grounds adjoining is one of the finest Yew trees perhaps in the three kingdoms, the age of which is unknown. The most remarkable thing about this fine old tree is, that the branches grow through and through each other, as if grafted so.* The branches measure in circumference 90 yards; associated with this are some grand specimens of Lime and other trees, of apparently great antiquity. Returning to the pleasure grounds, we were next shown a fine specimen of *Brugmansia sanguinea*. Mr. Dowling, the intelligent gardener here, gave us the following particulars relating to this tree:—In May, 1845, it was planted in the conservatory, and was then three feet high; notwithstanding the annual pruning it got, it grew too large in a few years for its then situation. In May, 1851, it was planted out in the open ground, having the previous autumn had its roots cut in to within three feet from the stem. The tree now girths at the ground three feet and a half, and is 20 feet high, covering an area of 170 square feet; it was planted out in a mixed soil, composed of loam, bog earth, a good portion of charred matter, rotten dung and leaves, perfect drainage, &c. Each year, in October, the tree is covered by sticking poles in the ground, five inches apart, the places between being stuffed tight with packing Moss. A span-roof is then put on, one side of which is thatched, the other covered with sashes, which have an additional covering in severe frosts. The protection is gradually taken away in March and April, and altogether in May. It is surprising the immense size this tree would have grown had it not been subjected to severe

* We shall be glad to know further particulars of this remarkable tree from our correspondent or Mr. Dowling.

annual pruning. When we visited the place, some hundreds of blooms were nearly expanded, and, when in full flower, it has a very remarkable appearance, from the singular shape of the blooms, and is altogether a very striking plant. We gathered a berry or seed pod of it nearly ripe; is this not a *rare* thing. The pleasure grounds also contain many other fine specimens of trees and shrubs, dotted about. Among these were some choice Coniferæ, which are doing well, and produce a good effect.

The conservatory, a large span-roofed building, with a conical-shaped projecting end, adjoins the mansion, and contains a mixed collection of greenhouse plants, chiefly intended for autumn and winter display. We noted a fine healthy specimen of Norfolk Island Pine (*Araucaria excelsa*), 20 feet high. The kitchen garden stands on an island, in the lough, opposite the grounds, and is reached by a bridge, thrown over the lake. The glass erections here consist of four vineries, two Peach-houses, Pine-stove, orchard-house, plant-stove, succession Pine-pits, Melon and Cucumber-pits. The first house of Vines consists of Hamburgh and Sweetwater, which were carrying a fine crop, and well coloured; second, planted with Hamburgh and White Nice; third, with Muscats of Alexandria; fourth, with Hamburgh, West's St. Peter's, &c. The Muscats were remarkably fine, in fact, all the Grapes were in excellent condition. The trees in the Peach-houses were loaded with fine fruit. The Pine-stove, a span-roof, is about 20 yards long, divided in the centre by a glass partition. The fruiting plants were planted out on the open-bed system, in 18 inches of soil, over hot-water pipes, so that any amount of bottom heat can be kept as required. Mr. Dowling prefers his plants showing fruit prior to planting out. We noted some fine Providence, Queens, &c., in fruit. The orchard-house is a new erection, and, when well established, we have no fear as to its giving every satisfaction. The young trees, both planted out and in pots, were promising well. Not alone are orchard-houses useful for growing fruits; they form an excellent auxiliary for keeping bedding-out plants secure during winter. The plant-stove contains a goodly collection of mixed stove plants, Ferns, and Lycopods. Planted out in the centre bed were some fine plants of the *Musa Cavendishii*, which we believe annually produces a fine crop of excellently flavoured fruit. Arranged with good effect were variegated and fine foliaged plants, such as Crotons, Dracænas, Rhopalas, &c. Melons and Cucumbers are grown largely here in dung pits for summer use; the Melons were superb. The kitchen-garden is divided into four compartments by two centre walks, intersecting in the middle of the garden; one square was filled chiefly with Currants and other bush fruit, bearing a good crop. The most prolific kind of red Currant we ever saw was here, under the name of the Mallow-leaved Currant. A row of dwarf bush Apple trees surrounds each square. Next the walk is a border filled with flowering plants. When we visited the place, the bedding-out plants were just coming into flower, the whole presenting a very gay appearance, fully entitling it to the rank of being called a "dress garden." Wall fruit were scarce here as everywhere else this season. As some thousands of bedding-out plants are annually required here, Mr.

Dowling's system may not be unacceptable to the readers of the *Florist*.—In spring, he prepares "sods" of turfy loam, say three inches broad, and about the same in depth, the length according to convenience. Cutting off the grassy surface, he then shakes over the top a little sand; the cuttings are then put in a single row up the centre of each strip of turf, which is then removed to the cutting-pits. When struck they can be *cut* or *torn* apart, and planted out without any trouble or expense of potting, and it answers the purpose equally well. Nothing could be more simple when the *modus operandi* is understood. This plan is not alone restricted here to bedding-out plants, but we noticed a great quantity of greenhouse plants struck in the same way. From the perfect neatness and order which were everywhere apparent on those extensive grounds and gardens, we are irresistibly led to form a high opinion of Mr. Dowling's assiduity, professional skill, and taste.

Ireland, July.

D.

NATIONAL CARNATION AND PICOTEE SOCIETY.

WHY call it National? say I; for this year I take up the list I have made, and find there were thirty-one prizes, independent of the class-showing. Of these there were thirteen taken by Yorkshire growers, twelve by those of Lancashire, four by those of Warwickshire, and two by the north part of Derbyshire. Are these the only counties where Carnations and Picotees are grown? or has there been a mistake? And has the Northern Counties' Carnation and Picotee exhibition been held instead of the National? I could find no Mr. Turner—no southern growers at all. The midlands, too, were absent. The reason was obvious; the exhibition was fixed much too late; and I hold, as I have done before, and as I have done publicly in print this year, that the National Show—if it is really to be a National Show—must be held in July. The National Society headed their circulars, that the proposed amalgamation of the two societies (*viz.*, the Northern Counties and the National) was not acceptable to the great majority of cultivators; but I think it is hardly fair that the southern and midland counties should have no chance to represent their various localities. The blooms with me had been over nearly three weeks—that is, the best of the bloom; and on the day of exhibition I don't think a pan could have been cut from the whole of the county. I do not make these remarks with any ill feeling at all, but simply to prevent a recurrence of the same, for it must of necessity damage the Society, because the midlanders and the southern men will undoubtedly withhold their support, if debarred from showing. The management of the whole reflected credit on the secretaries and committee. In the analysis it will be found that the greatest number of flowers were old faces. In the crimson bizarre class of Carnations Black Diamond and Warrior are most frequent, which is about the same position occupied by them last season. In scarlet bizarres Admiral Curzon maintains its old position, while Dreadnought, a flower remarkably like it and a new competitor, comes second. In rose flakes Lovely Ann is, as last year, first; while

Queen Boadicea is second. In scarlet flakes Splendour stands first and Sportsman second, while in purples Squire Meynell and Premier occupy positions as before.

Picotees : In heavy purples Mrs. Bayley and Lord Nelson maintain their ground, and stand first, as last season. In light purples Amy Robsart and Haidee are again as before ; while in heavy reds, Mrs. Dodwell takes the lead, and is followed by Sultana and Mrs. Norman, the last being the leader previously. In light reds Ada Mary is again favourite, while Miss Holbeck recedes and Sultana is prominent. In heavy roses Aurora rises to the first position, and Venus maintains about her old place. In light Roses Mrs. Turner is again leader, and Crystal takes the place of Bertha.

Carnations : Black Diamond (11), Warrior (10), Jenny Lind (9), Lord Milton (8), Sarah Payne (7), Lord Goderich (2), Falconbridge (1), King of Carnations (1). Scarlet Bizarres : Admiral Curzon (21), Dreadnought (10), Paladin (3), Lord Rancilffe (2), Mr. Ainsworth (2), Sir J. Paxton (1), Lord Lincoln (1). Scarlet Flake : Splendour (9), Sportsman (6), Lady Curzon (4), William IV. (4), Firebrand (3), John Bayley (2), Christopher Sly (1), Ivanhoe (1), Cradley Pet (1). Rose Flakes : Lovely Ann (10), Queen Boadicea (5), Rose Castille (3), King John (3), Poor Tom (3), Lady Ely (2), Maid of Athens (1), Ariel (1), Rosy Queen (1), Lovely Mary (1). Purple Flakes : Squire Meynell (5), Premier (3), Beauty of Woodhouse (2), Earl Wilton (2), Esther (2), Favourite (1), Squire Trow (1), Earl Spencer (1), Napier (1).

Picotees—Heavy Purple : Mr. Bayley (14), Lord Nelson (11), Alfred (5), Countess (1), Mrs. May (1). Light Purple : Amy Robsart (15), Haidee (4), Mrs. Eyre (3). Heavy Rose : Aurora (8), Venus (6), Queen (4), Mrs. Drake (2), Alice (2), Helen (1). Light Rose : Mrs. Turner (15), Crystal (9), Bertha (4), Eva (4), Mrs. Barnard (3). Heavy Red : Mrs. Dodwell (12), Sultana (9), Mrs. Norman (7), Dr. Pitman (5), Mrs. Hoyle (5), Lauretta (4), Mrs. Lochner (2), Prince of Wales (1). Light Red : Ada Mary (11), Eugenie (5), Miss Holbeck (4), Charles Turner (1).

ALFRED G. SUTTON, F.H.S.

Grove Cottage, Radford, Nottingham.

PERPETUAL STRAWBERRIES.

ALMOST every season, says the American "Gardeners' Monthly," brings advertisements of new perpetual Strawberries. Like the comet, they take us very much by surprise, and their course to our gardens is marked by much the same train, and received with the same admiration, as we see follow on the comet's wondrous tail. No sooner, however, do they come near enough for us to get a fair glimpse of them, than, like the great celestial luminary, they recede from our view more rapidly than they came, and are soon forgotten and lost to us for ever.

Once we had faith in that horticultural astronomy which predicted the advent of some perpetual Strawberry star. The savans learned in the science assured us positively that a new body had been discovered

in the constellation "New Orleans." It was considered a genuine planet of the first magnitude, and named "Crescent Seedling Perpetual," from its connection with that city of the moon. Patiently we waited its appearance in our own grounds, and made every preparation to observe the distinguished stranger in his best aspects when he appeared; but, behold! "he came, *ice* saw, and he vanished." The solidity of his planetship was but a myth,—a mere cometary nebulosity,—and he was as quick gathered to his fathers as his ancestors had been before him. Still the race continues to appear,—some with more brilliancy than others,—sometimes a mere second crop in some cottager's garden; at others a "*Delices d'Automne*."

Now, are these "celestial visitors" to be considered something like meteoric forms,—called into existence for the purpose of mere "blaze," perfect when they have once made a "dazzling show" in "horticultural space," then to burst and disappear? or are they the nuclei of "new worlds," like all new beginners, imperfect and incomplete,—foreshadowing to us star-gazers how glorious they will be when their destiny is complete? Will "Perpetual Strawberries" ever be more than a "wandering" idea, and become a real "planetary," substantial fact?

Why should it not? The improvements in many of our fruits and vegetables have become so extensive, that we can scarcely discern the sources of their origin, and the early history of many of them is nearly lost in obscurity.

Even the Strawberry itself is scarcely able to produce a clean record to its title as a British fruit. The first knowledge we have of its cultivation in history is that, about the year 1600, an English gardener saw a plant growing in a poor woman's garden in the south of England, the fruit little larger than peas, said to have been found in the woods by the good lady's daughter; but it is well known that they were cultivated by those good friends of horticulture in those days, the monks, in the monastic gardens, long before that time, and they may as likely have escaped from them, and become wild and deteriorated, as to have been truly indigenous to the wood where the young lady found it.

But to return to *perpetual* Strawberries. We have early Strawberries, and succession Strawberries, and late Strawberries. We have them in May, and if the reports of a new Californian Strawberry are not fabulous, we have them in September. Now, why, by a judicious system of crossing, may we not have a kind which will unite all the seasons in one individual? We all know how Mr. Knight's experiments in hybridising the kinds already supposed to be of European origin with kinds of American birth gave to the horticultural world a race of fruit, from which all we know the most prizes have been obtained. What may not yet be done by similar experiments? And this is our great want—experiment and experimentors,—men like Knight and others, with the leisure and the taste to patiently investigate, and test, and originate new ideas and practices. It is the great want of our age; affording a fine chance for any lover of his fellows to distinguish and immortalise himself.

Depend upon it, we are to have perpetual Strawberries; and the

man who deliberately goes to work to turn them up, will reap a great reward,—one well worth trying for, and calculated to excite the envy of us poor hacks of editors who sit patiently waiting for the good fruit to come. The French already have a kind that bears for four months,—a poor miserable thing, 'tis true, grown merely as a curiosity for edging borders, as it throws all its energies into flowers instead of runners; but no matter about the quality,—that is, perhaps, better than the grand aborigines of our present Strawberry-beds.

Yes, ladies and gentlemen, we must have perpetual Strawberries. All that we have yet had have been myths,—all that we now have may be no more than that; but who will be the man to show us a real genuine article—one that will stand the test like an English Elton or an American Hovey? He is not far in the future.

NATIONAL CARNATION AND PICOTEE SOCIETY, CHESTERFIELD, 1859.

We are the flowers
Born of sunny hours.

Think, whenever you see us, what our beauty saith:
Utterance mute and bright
Of some unknown delight,

We fill the air with pleasure by our simple breath.
All who see us love us,
We fit all places;

Unto sorrow we give smiles, and unto graces, graces.

THURSDAY, *August 4*.—A fine bright morning. We journeyed with a train, not of florists from Nottingham, but of visitors who, attracted by the cheap trains, availed themselves of the opportunity. Indeed, we must say that it was with pain we saw so few of the Carnation and Picotee growers with us; but whatever was the reason—whether the exhibition being too late, or otherwise—so it was, there were but few present. When we arrived, too, we must say we were disappointed; for spite of the earliness of the season, we had hoped that some of the southern growers—at all events, Mr. Turner—would have been there. But no. Take a map, and make your furthest point south Chesterfield, and, drawing a line, you would find all your exhibitors come northward of that line. The flowers on the whole, considering the season, were better than we had anticipated. Dreadnought, a new flower, vastly like Admiral Curzon, in many instances occupied a prominent position in the stands, it being exhibited no less than nine times, and standing in point of numbers second in its class. Nurserymen were represented by Messrs. Dodwell & Co., Mr. R. R. Oswald, &c.; while amateurs were well represented by the Lancashire and Yorkshire growers. In Mr. Openshaw's pan of Twelve Carnations an exceedingly fine bloom of Lord Milton was shown; while in Mr. Baildon's pan of Carnations a very fine seedling in the style of Lady Ely attracted much attention. The premier Carnation at the meeting was a bloom of Dreadnought, exhibited by Messrs. Dodwell & Co.; while the same honour was awarded to Mr. E. Wood, of York, for Mrs. Bayley, in the Picotee class.

We shall not enter into the merits and demerits of the various stands. The decision of the judges seemed to give universal satisfaction; the amateurs judging the dealers' classes, while the dealers served the same office for the amateurs. The Hollyhocks exhibited by Mr. Chater, of Saffron Walden, were remarkably good. A new seedling, tipped with blush, and which Mr. Chater, jun., kindly informed us was the first bloom opened, will, if we mistake not, be a first-rate variety. Celestial, Memnon, Harriet, Exhibitor, Mary Ann, Sceptre d'Or, Seedling (blush), and J. Clarke, were also flowers after our own heart. The season was so unfavourable that the roses were really good for nothing. A nice collection of plants from Fisher, Holmes, & Co. His Grace the Duke of Devonshire's, though not large, were very beautiful; they principally consisted of Begonias, Farfugium grande, Venus' Flytrap, "Jug-plants," Pitcher-plants, Orchid Miltoniaspectabilis, Cotton, Ginger, Coffee, and Arrow-root plants. Some fine Potatoes and Black Grapes were also to be found in the Amateurs' tent; while a collection of Potatoes from Wingerworth gardens were in first-rate order. The following were the awards of the judges:—

Class A. For Nurserymen—Premier prize for the best Twelve Carnations, and the best Twelve white-ground Picotees, dissimilar varieties, a silver-plated Tea and Coffee Service: Messrs. Dodwell and Bayley. Carnations: Lord Milton, Rose of Castille, Dreadnought, Premier, Lovely Ann, Admiral Curzon, Squire Meynell, Sarah Payne, John Bayley, Queen Boadicea, Jenny Lind. Picotees: Prince of Wales, Mrs. Bayley, Mrs. Turner, Sultana, Aurora, Lord Nelson, Ada Mary, Amy Robsart, Seedling (light purple), Seedling (rose), Mrs. Barnard, Venus.

Class B. For Private Growers—Premier prize for the best Twelve Carnations, to contain not less than nine dissimilar varieties, and the best Twelve white-ground Picotees, not to contain less than nine dissimilar varieties, a silver-plated Tea and Coffee Service; Mr. H. Steward, York. Carnations: Jenny Lind, King John, Lord Randaliffe, Jenny Lind, Beauty of Woodhouse, Warrior (Slater), Christopher Sly, Uncle Tom, Dreadnought, Uncle Tom, Falconbridge, Warrior. Picotees: Mr. Bayley, Mrs. Turner, Amy Robsart, Dr. Pitman, Ada Mary, Mrs. Hoyle, Mr. Bayley, Aurora, Mrs. Dodwell, Lord Nelson, Mrs. Turner, Mrs. Dodwell.

Class C. Premier prize (open to cultivators whose stock shall not exceed 150 pairs), for the best Six Carnations and the best Six white-ground Picotees, dissimilar varieties, a silver-plated Tea and Coffee Service: Mr. W. M. Hewitt, Chesterfield. Carnations: Friar Lawrence, Squire Meynell, Dreadnought, Admiral Curzon, Lord Milton, John Bayley. Picotees: Crystal, Ada Mary, Aurora, Queen, Amy Robsart, Mrs. Norman.

Class D. For Nurserymen—Twelve distinct varieties of Carnations: 1st prize, Messrs. Dodwell & Bayley, for Rose of Castille, Admiral Curzon, Sarah Payne, Dreadnought, Lord Milton, Squire Meynell, Ivanhoe, Queen Boadicea, Sportsman, Lovely Ann, Earl Wilton; 2nd, Mr. Walmsley, Oldham, for Dreadnought, Squire Meynell, Uncle Tom, Mr. Ainsworth, Lovely Ann, Splendour, Curzon, Lady Ely, Seedling,

Lord Milton, Mr. Holland, King of Carnations; 3rd, Mr. R. R. Oswald, Adderley Gardens, Birmingham, for Jenny Lind, Admiral Curzon, Black Diamond, Dreadnought, Lady Curzon (very like Sportsman), Warrior, Lady Gardiner, Favourite, Florence Nightingale, Lovely Ann, Sir J. Paxton, Cradley Pet.

Class E. For Nurserymen—Twelve distinct varieties of white-ground Picotees: 1st, Mr. Walmsley, Oldham, for Mrs. Norman, Seedling, Crystal, Mrs. Bayley, Bertha, Green's Queen, Lauretta, Mrs. Drake, Countess, Miss Holbeck, Lord Nelson, Sultana; 2nd, Messrs. Dodwell & Bayley, for Mrs. Dodwell, Mrs. Turner, Lord Nelson, Sultana, Mrs. Bayley, Seedling, Crystal, Amy Robsart, Venus, Seedling, Alfred; 3rd, Mr. R. R. Oswald, Adderley Gardens, Birmingham, for Ada Mary, Alfred, Lady Alice Peel, Sultana, Mrs. Turner, Seedling, Lavinia, Mrs. Barnard, Mrs. Bayley, Dr. Pitman, Amy Robsart, Mrs. Hoyle.

Class F. For Private Cultivators—Twelve Blooms of Carnations, not less than nine dissimilar varieties: 1st, J. J. Openshaw, Esq., Bury, Lancashire, for Lord Milton (very fine), Seedling, Black Diamond, Dreadnought, Lovely Ann, Splendour, Lord Rancilffe, Squire Meynell, Squire Trow, Lady Gardiner, Admiral Curzon, Warrior; 2nd, Mr. Samuel Yardley, Oldham, for Dreadnought, Splendour, Warrior, Admiral Curzon, William IV. (Wilson), Mr. Ainsworth, Sportsman, Uncle Tom, Ariel, Black Diamond, Lady Ely, Premier; 3rd, Mr. Samuel Brown, Handsworth, for Jenny Lind, Lord Lewisham, King John, Jenny Lind, Florence Nightingale, Admiral Curzon, Black Diamond, Lady Rhodes, Admiral Curzon, Warrior, Lady Curzon, Premier; 4th, Mr. J. Cheetham, Rochdale, for Dreadnought, Earl Wilton, William IV., Jenny Lind, Black Diamond, Lady Gardiner, Lord Goderich, Splendour, Lovely Ann, Queen Boadicea, Magnet, Admiral Curzon; 5th, Mr. E. Elliott, Rochdale, for Poor Tom, Paladin, Premier, Admiral Curzon, Firebrand, Beauty of Woodhouse, William IV., Earl Spencer, Admiral Curzon, Poor Tom, Lady Curzon, Lord Goderich; 6th, Mr. Baildon, Halifax, for Admiral Curzon, Lovely Ann, Admiral Curzon, Seedling, Paladin, Juno, Queen Boadicea, Firebrand, Premier, Seedling (good—in style of Lady Ely), Black Diamond.

Class G. For Private Cultivators—Twelve Blooms of white-ground Picotees, not less than nine dissimilar varieties: 1st, J. J. Openshaw, Esq., Bury, for Mrs. Bayley, Crystal, Haidee, Dr. Pitman, Amy Robsart, Seedling, Lord Nelson, Aurora, Alfred, Mrs. Norman, Amy Robsart, Ada Mary; 2nd, Mr. Jos. Cheetham, Rochdale, for Haidee, Crystal, Lauretta, Amy Robsart, Lord Nelson, Mrs. Turner, Eugenie, Bertha, Eva, Sultana, Mrs. Eyre (good), Dr. Pitman; 3rd, Mr. W. Baildon, Halifax, for Amy Robsart, Crystal, Mrs. Holbeck, Mrs. Norman, Mrs. Dodwell, Alfred, Mrs. Turner, Amy Robsart, Lord Nelson, Mr. Drake, Lauretta, Mrs. Bayley; 4th, Mr. Samuel Brown, Handsworth, Eva, Sultana, Ada Mary, Aurora, Mrs. Lochner, Lady Alice Peel, Mrs. Hoyle, Alfred, Mrs. May, Lavinia, Mrs. Bayley, Sultana; 5th, Mr. H. Steward, York, for Mrs. Lochner, Mrs. Eyre, Mrs. Turner, Mrs. Hoyle, Ada Mary, Aurora, Lord Nelson, Ada Mary, Dr. Pitman, Mrs. Turner, Alice (Hoyle), Mrs. Dodwell; 6th, Mr. W. M. Hewitt, Chesterfield, for

Seedling (good), Bertha, Mrs. Dodwell, Mrs. Turner, Bertha, Queen, Crystal, Mr. Dodwell, Lauretta, Lady Grenville, Ada Mary, Victoria.

Class H. For Private Growers—Six Blooms of Carnations, dissimilar varieties, open to growers whose stock does not exceed 150 varieties: 1st, Mr. E. Wood, York, for Grand Monarch, Jenny Lind, King John, Lovely Ann, Warrior, Comet; 2nd, Mr. Brierley, Chadderton, for Lady Curzon, Lovely Ann, Sportsman, Warrior, Admiral Curzon, Black Diamond; 3rd, Mr. Mellor, Ashton, for Warrior, Seedling, Queen Boadicea, Black Diamond, Esther, Admiral Curzon; 4, Mr. Bardsley, Oldham, for Admiral Curzon, Splendour, Sportsman, Esther, Lord Milton, Rosy Queen; 5th, Mr. H. Williamson, Oldham, for Admiral Curzon, Splendour, Warrior, Black Diamond, Sportsman, Lovely Mary.

Class I. For Private Growers, Six Blooms, white-ground Picotees, dissimilar varieties, open to cultivators whose stock shall not exceed 150 pairs: 1st, Mr. E. Wood, York: Ada (Barnett's, a very pretty thing), Seedling, Mr. Hoyle, Aurora, Eva, Mrs. Bailey; 2nd, Mr. Brierly, Chadderton: Amy Robsart, Mrs. Turner, Seedling, Mrs. Norman, Venus, Lord Nelson; 3rd, Mr. Weller, Ashton: Mrs. Dodwell, Mrs. Turner, Crystal, Sultana, Mrs. Barnard, Eugenia, 4th, Mr. Badsley, Oldham: Mrs. Dodwell, Lord Nelson, Miss Holbeck, Haidee, Helen, Ada Mary; 5th, Mr. H. Williamson, Oldham: Amy Robsart, Ada Mary, Mrs. Norman, Picco, Eva, Mrs. Dodwell.

CLASS SHOWING.

CARNATIONS.—Scarlet Bizarre: 1, Admiral Curzon, J. J. Openshaw, Esq.; 2, do., Dodwell and Bayley; 3, Dreadnought, do.; 4, Admiral Curzon, do.; 5, Palladin, J. J. Openshaw, Esq. Crimson Bizarre: 1, Black Diamond, J. J. Openshaw, Esq.; 2, La Mullen, do.; 3, do., do.; 4, Jenny Lind, do.; 5, Black Diamond, do. Rose Flakes: 1, Lovely Ann, Mr. Cheetham; 2, Maid of Athens, J. J. Openshaw, Esq.; 3, Poor Tom, Mr. Elliott; 4, Rose of Castille, Dodwell and Co.; 5, Seedling, Mr. Baildon. Purple Flakes: 1, Seedling, Mr. Baildon; 2, do., J. J. Openshaw, Esq.; 4, Napier, Mr. Cheetham; 5, Premier, J. J. Openshaw, Esq. Scarlet Flakes: Splendour, J. J. Openshaw, Esq.; 2, do., do.; 3, William IV., Mr. Cheetham; 4, Firebrand, Baildon.

PICOTEES.—Heavy Purple: 1, Mrs. Bayley, J. J. Openshaw, Esq.; 2, do., Mr. J. Walmesley; 3, do., Mr. J. Yardley; 4, do., Mr. J. Walmesley; 5, Lord Nelson, J. J. Openshaw, Esq. Heavy Red: 1, Sultana, Dodwell and Co.; 2, Mrs. Dodwell, Mr. Steward; 3, Mrs. Norman, Mr. Baildon; 4, J. J. Openshaw, Esq.; 5, Mrs. Dodwell, Mr. Yardley. Heavy Rose: 1, Aurora, J. J. Openshaw, Esq.; 2, Venus, Dodwell and Co.; 3, do., do.; 4, Alice, do.; 5, Venus, do. Light Purple: 1, Amy Robsart, J. J. Openshaw, Esq.; 2, do., do. 3, Haidee, do.; 4, Amy Robsart, do.; 5, Mrs. Eyre, do. Light Red: 1, Eugenia, J. J. Openshaw, Esq.; 2, do., do.; 3, do., Mr. Mellor; 4, Charles Turner, Mr. Steward; 5, Miss Holbeck, J. J. Openshaw, Esq.

The company of Alvan's Coloured Opera Troupe, as well as a fine regimental band, enlivened the whole, the former proving an almost paramount attraction.

Grove Cottage, Radford.

ALFRED G. SUTTON, F.H.S.

CULTIVATION OF THE AMARYLLIS.

THIS has seldom received the attention it deserves. We find a few of them here and there, but they are "wide and far between."

If you inquire how this class of plant should be managed, this is *generally* the instruction given: "The plant must be potted in a small pot in spring, in sandy soil. When it has bloomed then it requires no further care or attention until next potting-time." But when a bulb goes to rest in its *natural state*, after the production of leaves and flowers, the decay is *gradual*. All the sap in the flower stem and leaves which has not been actually assimilated returns to supply the bulb with some of the original nourishment, and to replace and restore some of those elements requisite for the future plumpness and continuous well being of the plant. It will at once be seen that when a bulb is *forced* into growth, and as soon as the flowers are over, the leaves pulled off and thrown away, and then the plant placed on some dry shelf for months, where the soil frequently becomes perfectly dry, this sort of *rest*, as it is called, is very different from the natural rest of Nature.

Supposing that the general method of cultivation was not in strict accordance with the theory of horticulture, some six years ago I determined on trying a method founded on a more rational view of nature, and the result has been of the most satisfactory character. I used large pots and light rich soil. I destroyed no leaf or flower stem until it was thoroughly decayed, and when the bulbs *would* go to rest, I kept them moderately warm and moist. I never force these plants to rest, but try to keep them growing. When they show a disposition to rest, then I remove them to a cooler and dryer house, where they gradually become dormant. But some of the Amaryllis tribe will keep constantly growing in size and substance, until they become immensely large and are then capable of producing blooms of an extra size. I feel satisfied that if gardeners in general were aware of the real worth of these plants, they would become *universal* and indispensable.

When any of my bulbs have had rest, and show signs of growth, I remove all the *old soil* and roots completely away from them. I then give them a good large pot, drained thoroughly, generally by turning a small thumb-pot upside down to cover the hole, and then quite cover that over with broken pots, or charcoal lumps, or rough sods. I use for compost rough sods of fibry loam, about the size of a hen's egg, with about half the quantity of half-decayed leaves, also in a rough state, with a little sand. I top-dress, for the sake of a neat finish, with the fine soil shaken from the other mixture. When this is done, I remove the plants to a stove where the temperature ranges from 60° to 70° Fahrenheit. I give plenty of water daily when the plants are growing freely, with an occasional syringing, to freshen and keep them clean, for the thrips is liable to attack them if the atmosphere becomes too dry. These keep constantly growing on, *if possible*. The Hippeastrum aulicum seems, in particular, a continuous grower on this system. I put a bulb of this variety of about 8 inches circumference in a 10-inch pot. In the course of a year this bulb will require a still larger shift, and will have made several fine bulbs, which, if permitted

to remain until a second year, will flower finely. They generally flower twice in the season. We have had as many as six spikes of flowers from one pot, and as many as ten blooms open from one pot at a time, presenting a magnificent sight. Some of our flower-stems have been fully four feet high, and four inches in circumference. In one or two cases, we have had four such stems from one bulb, with three blooms on a stem. My largest bulb is 17 inches in circumference. My largest plant is in a pot fifteen inches in diameter, and requires a still larger shift. This season I have fertilised some of the finer varieties, and have now a number of promising plants.

W. PAYNE.

BRITISH POMOLOGICAL SOCIETY.

JULY 21.—Mr. Hogg in the chair. The Secretary read a letter from Mr. W. J. Ward, of Headington Hill, near Oxford, concerning the identity of his Strawberry Omar Pacha with Rival Queen and Eliza. He affirmed his variety to have been raised from seed at Prospect Hill, in 1851, from Caroline Pine impregnated with British Queen; sown in a pan as soon as ripe, and planted out the following spring; that his late employer, W. Stephens, Esq., and he watched them with great interest, and selected Omar Pacha for its superior flavour: that he had sufficient stock in 1854 to gather from and exhibit, which he did at Regent's Park, Chiswick, Ashford, and Bath, sending fruit also to those whom he considered the best authorities of the day. He accompanied this letter by a copy of the circular which contained their opinions, to show that it was not sent out without a character. He further stated that he does not know Myatt's Eliza, being quite sure that it was never cultivated at Prospect Hill during the fourteen years he was there. Also that he knows nothing of Rival Queen, and that Mr. Tiley bought Omar Pacha of him. It was further reported by a member present that Omar Pacha had been carefully compared with Eliza in a private garden at Winchester, where it had been obtained directly from Mr. Ward. Mr. Ward's letter was considered by the meeting sufficient to clear him from any knowledge of the mistake. Mr. Spary, of Brighton, sent a good and well-ripened bunch of Golden Hamburgh Grape, the fourth he had cut from a graft inserted on the young wood last year.

Aug. 4.—Annual General Meeting. Mr. Hogg in the chair. The accounts for the past year were laid before the meeting and unanimously approved. They showed the receipts to have been 200*l.* 1*s.* 11*d.*, and the expenditure 194*l.* 19*s.* 2*d.*, which showed a balance to the credit of the society of 5*l.* 2*s.* 9*d.* The secretary reported that, notwithstanding the loss of four members by death and resignation during the past year, the number now upon the list was 232, being 80 more than the corrected number reported at the last annual meeting. With reference to office-bearers, F. J. Graham, Esq., of Cranford, and H. Webb, Esq., of Redstone Manor, Reigate, were elected new vice-presidents; and the following names were added to the Council, viz., E. W. Cox, A. Scrutton, R. Frankum, R. Stains, and J. B. Haig, Esquires; Messrs. J. Fraser,

S. Mart, G. Paul, J. Spencer, J. Cutbush, W. Davidson, E. Spary, G. Gordon, J. Ivison, J. Peel, and J. Milne. Messrs. J. Fraser, W. Paul, and R. A. Arnott, were elected auditors.

This being the meeting on which premiums were offered for collections of Grapes, a very large and interesting collection was contributed by Mr. Newton, gardener to G. J. Graham, Esq., Enfield Chase, and which was awarded the first premium of Three Guineas. In the Muscat section the following varieties were contributed:—Muscat of Alexandria, a good bunch, well ripened, which served for comparing and testing other varieties: Muscat of Eschcolata: this variety in the Horticultural Society's catalogue has been confounded with the former one. It is, however, unquestionably distinct, as it appears to set better, and evidently ripens in much lower temperature, a bunch of Merrick's Victoria Hamburg from the same house being scarcely so ripe; in every other respect the varieties are very similar:—a Seedling Muscat, raised from White Syrian and Muscat of Alexandria, appeared very similar to the last mentioned variety, and from the evidence adduced, appeared suited to a cool house; the berries were very sweet and good, and the exhibitor affirmed it to be a better setter than the other kinds. The meeting, however, desired more conclusive evidence before they would express an opinion upon its merits. In this class should be mentioned Uva Troggin, a kind bearing some resemblance to Cornichon Blanc, but in form of berry about halfway between that and Muscat. It was a variety imported from Italy, and, although sweet, was thick-skinned and of no value. Allied to the Muscats was a fine and well-ripened bunch of the White or Genuine Tokay. This Grape is a free grower, great bearer, good setter, hangs well, and is very hardy: as it is also a sweet and thin-skinned Grape, it is worthy of being more usually grown where an assortment is desired. In the Black Hamburg section there was a bunch of the usual variety; also one called Coventan, which was too nearly similar to be considered distinct. Wilmot's Black Hamburg, which is distinguished by the berries being more elongated, and having the appearance commonly called hammered. It is generally more compact in bunch than the original variety. And Meyrick's Victoria Hamburg, which is generally very large in berry, and more round than the last mentioned, but is frequently less highly coloured. It approaches very nearly, if it is not identical with, the Mill Hill Hamburg. A fine and well-set bunch of the Black Morocco included in the collection was not quite ripe. Of the St. Peter's section was a bunch of the original variety, quite ripe and very sweet; and one of Black Prince, in good condition but less ripe. A large bunch of that peculiar variety, Gros Gromier du Cantal, partaking of the qualities of Sweetwater and Hamburg, with the colour of Grizzly Frontignan, had been cut some days, but was ripe, sweet, and very juicy. Of the White Frontignan, a bunch, remarkably large and handsome, though scarcely ripe, was included in the collection. Of the Muscadine section were a bunch of the true Royal, mis-named White Sweetwater; also, one called Griffin's Royal Muscadine, which was undistinguishable, save in the bunch being smaller. In the Sweetwater section were a good bunch of the Old Dutch, and one called Diamond Drop, which appeared to be

a better setter, but was thicker skinned and inferior in flavour. A variety something like Esperione, but smaller and inferior, was not recognised. A Black Seedling, said to have been raised between Black Cluster and White Sweetwater, described as a great bearer, was straggling in bunch, small in berry, full of seeds, very thick skinned, and utterly worthless. Mr. Ivery exhibited a very fine bunch of his Buckland Sweetwater. The meeting was much gratified to find that it so fully maintained the high opinion which the society had previously passed on it; the only peculiarity noted regarding it, which differed from the description given last year, was that the berries had reassumed the bluntly ovate form under which it had first been presented.

PROTECTING AND PRESERVING BROCCOLI IN WINTER.

ALTHOUGH most of the varieties of Broccoli are hardy enough to resist the cold of tolerably mild winters, and some kinds even withstand frosts that are rather severe, yet we occasionally experience winters that cut off nearly every kind. It is, therefore, advisable to adopt such means as will insure at least a portion of the crop. This can be done most effectually by taking up, on the approach of frost, those which have either formed or are just beginning to form a head, and placing them side by side on the floor of a cellar. They should be taken up on a dry day. The temperature of an underground cellar is usually between 45° and 50° , and this will be sufficient to push the plants in flower-heads, the substance for the growth of which is derived from the stem. In this way Broccoli is secure from frost, but the flavour is not so fine as that of plants grown in the open air. Another mode of protection is to dig a trench at the end of a row, and then incline the plants one after the other, so that the soil may come close up to the bases of the lower leaves; or, a trench adapted to the size of a transplanter may be dug along the side of a row, and the plants taken up and dropped in, so that their necks may be a few inches above the level of the quarter. When thus transplanted, the soil should be drawn up and pressed close to the necks of the plants, thus forming a slight ridge to throw off the rain. Another mode consists in taking the plants carefully up with balls, and replanting them tolerably close together, with their heads inclined towards the north. All these transplantations should be done in October, or in the end of September in the north, and whilst there is still heat enough in the ground to encourage fresh roots. Means may also be adopted for protecting the plants without removing them. To do this, in planting, mark off two rows 18 inches apart; then a space of 4 feet; and again other two rows, 18 inches apart, and so on, having a 4-feet space between every pair of rows. The plants may be only 15 or 18 inches apart in the rows, according as the sort is large or small, and according to the richness of the soil. In these rows winter and spring sorts should be planted; but along the middle of each 4-feet space a row of early Broccoli may be planted, such as will be cleared off before protection is required for the winter kind; or, till that time, it may be

found convenient to occupy the space with some other crop. Before frost becomes severe, each pair of rows can be hooped over and protected by mats, straw covers, or any other protecting materials that can be easily removed, either partially or entirely, during the day, and replaced at night, according to the state of the weather. But now that glass is cheap, boxes could be made so as to include rows, and with sloping glazed lids that could be readily opened and shut; and a protection of this kind would doubtless prove cheaper in the long run than some other modes less effective and requiring more labour.

HORTICULTURAL SOCIETY'S NEW GARDEN AT KENSINGTON GORE.

WE learn with much gratification, from a circular just issued by this society to its members, that satisfactory modifications of the right of re-entry, and terms of compensation at the termination of the lease, have been conceded. The Council acting therefore on the power entrusted to them by the General Meeting of the 20th of July, have passed the following Resolution :—"That the terms of her Majesty's Commissioners be accepted as the basis of a lease, and that the society's solicitors be instructed to act for the society in its preparation."

A list which accompanied this circular shows that 1800*l.* is promised as actual donations, principally by her Majesty and H.R.H. the President of the society, and that various Fellows and others have agreed to propose different branches of their family and friends as Life Members to the extent of 5660*l.* (in number 197 to this day—Aug. 26), and also to lend 20,000*l.* on debentures. Altogether, it may be assumed that above 29,000*l.* out of the 50,000*l.* is already subscribed.

COBHAM HALL, THE SEAT OF THE RIGHT HON. THE EARL OF DARNLEY.

THIS noble demesne is situated about five miles south-east of Gravesend, in the heart of the beautiful county of Kent. The approach to the mansion and gardens lies through extensive woods and park. In the former Rhododendrons are largely planted, and come up abundantly from self-sown seeds. They appear to grow here with extraordinary luxuriance. The gardens, which are extensive, are situated close to the ancient and beautiful hall, which is an interesting specimen of old English architecture. On the north side a long flower garden, with beds on grass, was exceedingly gay; extending along one side of the walk is a row of slender pillars, connected by a chain running through their tops; over these are trained a variety of climbing Roses, and round the base of each pillar is a circular flower-bed. A large circular bed planted as follows had a most pleasing effect. In the centre was a

large pyramidal scarlet Fuchsia, then a circle of yellow Calceolarias, after that one of scarlet Geraniums, then Purple King Verbena, and an edging of variegated Alyssum. Another bed formed of Agapanthus umbellatus, interspersed with Mangles' Variegated Geranium, and edged with Lobelia speciosa, was novel and effective. Backing this garden are some noble specimens of Sophora japonica, Cedars of Lebanon, Magnolias, Sequoia sempervirens, Taxodiums, and one of the finest evergreen Oaks we have ever seen. Passing from this flower-garden a terrace walk is reached, terminated by an open balustrade, from which a magnificent view of the park is obtained.

On the south front of the mansion is another flower-garden, which has recently been much enlarged, and to which further additions are contemplated. A border here was particularly striking and effective. It is close to the mansion, against the walls of which various plants are trained. The back row consisted of scarlet, white, and purple Dahlias, of dwarf habit; then came a row of white, scarlet, and rose Geraniums; after that a row of yellow Calceolarias, and the outer row Mangles' Variegated Geranium: this border had a very rich effect. A pretty bed was also formed of Flower of the Day Geranium, edged with Lobelia speciosa. Asters were just being planted out in many of the beds; they are retarded till this time, as Mr. Clarke, who is gardener here, finds that by keeping them back till now he ensures a fine display of bloom late in the season, when flowers are scarce.

In the kitchen garden is a Vinery 54 feet long, filled with a single black Hamburg Vine, which was loaded with fruit. In another house were fine bunches of Chasselas Musqué. One or two bunches of Black Hamburg were attacked by mildew some little time since, and Mr. Clarke found that dipping them into a solution of 2 oz. of Gishurst Compound to a gallon of water effectually destroyed the disease without injuring the fruit. Muscats were in fine condition, and beautifully set. Pines were excellent; among them were some splendid fruit. Of Plums, Reine Claude de Bavay seems a most prolific sort, being loaded with fruit; Tay Bank is also a fine sort, producing immense fruit. Strawberries are fruited here from February; two-thirds of the stock consists of Keens' Seedling, which is found to be the best variety for early work. In the Pinetum are some nice specimens of Wellingtonia gigantea, one of which has made a shoot this year of the astonishing length of 2 feet 9 inches.

Everything was exceedingly neat and clean, not an insect was perceptible in any of the houses, and the whole keeping of the place certainly reflects great credit upon Mr. Clarke.

W. H.

SIKKIM RHODODENDRONS.

Two specimens of the Sikkim Rhododendron Thomsoni blossomed beautifully this spring in the Stanwell Nurseries, Edinburgh; one of these had ten trusses on it, with from seven to 12 florets in each. The blooms are of a brilliant crimson colour with a few dark spots in the throat, and have a remarkably stiff and waxy appearance, resembling in form those of *R. Dalhousieanum*; that is, tubular or trumpet-shaped, gradually widening out to the edge, which is neatly reflexed.

This plant is a standard, five feet high, with a fine bushy top, grafted on a common ponticum stock, and when in flower had a most striking appearance, more than realising all that has been expected of it from Dr. Hooker's drawing, and from the single truss which the same plant produced two years ago, the florets being much larger, and more of them in the truss. Indeed, it can hardly be surpassed as an effective spring-flowering conservatory plant, and needs but to be seen, covered with its beautiful flowers, to ensure for it a prominent position in every collection. A plant of the Bhotan *R. Windsori* also produced two trusses of flowers in this nursery. It proves to be a decided acquisition, and possesses the very desirable quality of flowering in a very small state, the plant in question being only about 18 inches high.

SEA-SIDE PLANTATION.

SITUATION.—West coast of Guernsey, but sheltered from the south-west by a hill. **Soil.**—Sandy peat mixed with vegetable mould, on a granite formation.

About sixteen years ago we commenced the first attempt to raise a plantation. The following trees and shrubs had been recommended for it, viz:—*Arbutus*, Holly, common Laurel, Laurestinus, Portugal Laurel, Scotch Fir. Repeated failures of these so-called hardy plants had nearly led to despair of ever raising a stick with a green leaf on it. Whatever shoots these plants made during summer were literally cut off by the winter storms, and the leaves of the shrubs became shrivelled and bronzed after every gale, as if a blast of lightning had passed over them. After four years' repeated trials there remained not a tenth part of the above plants alive, and all were sickly and withering.

Then commenced a fresh struggle for a little green shade, which was at last attended with success. First of all tried was the Tamarisk. This plant grew rapidly, and soon raised sufficient shelter for further hopes. The next shrub was the *Pittosporum*. This shrub thrived admirably. The more violent the gale of wind, the brighter the green leaves appear after. Then were planted with success the following:—The *Ilex*, the Turkey Oak, the *Euonymus japonica*, the New Zealand Flax, the Pampas Grass, the *Camellia japonica*, and lastly, the *Araucaria imbricata*. There now exists a respectable shrubbery, covering the bare land. The Tamarisk and *Pittosporum* have attained the height of upwards of twelve feet, and the *Araucaria* seems to court the breeze.

To give an idea of the proximity of the place to the sea, its waves dash against a wall built to protect the land from the sea's encroachment to the north-west. On the north side of this wall the sea, in a gale, chafes with Atlantic fury; while on the south side of the same—not five yards from the sea—Camellias blossom in profusion from Christmas to May.

T. P.

THE HYACINTH.

WE extract the following from Butler and McCulloch's Catalogue of Dutch and other bulbs just published. It may be acceptable to our readers at the present season :—

Culture of the Hyacinth in Moss and Sand.—Of the very many interesting ways of growing the Hyacinth, the following is exceedingly elegant and worthy of special attention. Fill with silver sand a china bowl, glass dish, vase, or anything of an ornamental character, capable of containing moisture, bring the sand to a point in the centre, and place three or more Hyacinths at equal distances, filling up the space between them with Crocuses, Snowdrops, Tulips, or Jonquils, or a mixture of all. Cover the whole with sand, or push them into it as may be most convenient, allowing the top of the bulb alone to be seen; then immerse the vessel into a bucket of water for ten minutes, to settle the sand, and fix the bulbs in their position, put them in a dark cool place for three weeks, afterwards keep them on a table near to the window, where they can have plenty of light and air; at no period should the sand be allowed to get dry, which will be prevented by the vessel, once a week at least, being immersed in water for five minutes in the manner previously directed. Hyacinths, &c., when grown in suspended wire baskets planted in moss, and treated as recommended for those grown in sand, are strikingly ornamental.

CALENDAR FOR THE MONTH.

Auriculas.—Those that have not been repotted should be done so at once. Little attention will be required for some time to come. The plants should be placed in a nice cool frame, fixed on a well-drained border, giving as much air as possible, and a moderate supply of water. Protect from rains, and pick off all dead foliage, and look carefully after the green-fly. If any start for bloom, pinch off the buds only when above the foliage.

Azaleas and Camellias.—Plants out of doors, if the weather is stormy and wet, should be placed in the house towards the end of the month. See to the drainage before housing the plants, and let the pots be washed and the surface soil loosened, adding a little fresh compost, to give a neat appearance. Where the buds of Camellias are set too thickly, they should be thinned out, having regard to the strength of the plants.

Carnations and Picotees.—The soil required for wintering the plants in small pots should be kept well turned and tolerably dry. The prin-

cipal attention required will be to eradicate all dead foliage from the layers. Water regularly and carefully. Pot the young stock from the stools any time after the 15th of the month, if sufficiently rooted.

Cinerarias.—Those that have been struck early will now require every attention. Pot off into small pots, say small 60's, using a nice turfy loam, with an admixture of well decomposed manure and leaf-mould, a little silver sand being necessary to drain the soil. Shift into a size larger pot such seedlings as are ready, and prick off the second crop; as soon as established, give all the air possible, to prevent mildew. Select from the first struck plants for specimens; take care that these have good strong stems, as they will require stopping in due season. Shift into larger pots as soon as they reach the outside of the pots. When about three or four inches long, pinch out their centres, and as soon as broken sufficiently, pot deep into flowering pots. Fumigate occasionally, to prevent the green-fly, and sulphur whenever mildew makes its appearance.

Conservatory.—This house should be got ready for receiving plants by the end of the month. Let any repairs which may be requisite for the roof or heating apparatus be completed at once, that every preparation may be made for arranging the pot plants, now standing out, when bad weather arrives. Attend to the creepers on the roof, which at this season are growing fast, and require frequent attention. Avoid formality, and do not overcrowd the roof, to obstruct too much light.

Cucumbers.—Attend to last directions. The best road to success in growing winter Cucumbers is to get the plants sown early and kept hardy by a cool temperature and abundance of light. When the plants have good foliage and a hardy constitution, they withstand the attacks of mildew and other diseases much better than weakly overforced plants, and will produce fruit through the dark days of winter much better. Plants in dung frames, exhausted by long bearing, may be well cut in, and six inches of fresh compost spread over the roots. The renewal of the linings will also give a stimulus to the roots, and induce a fresh growth, which will keep the plants in bearing for some time to come.

Dahlias.—Protecting the blooms for exhibition, if grown for show or enjoying their gay colours and noble form, if cultivated for decorative purposes only, will be the principal work of this month. In shading for exhibition, avoid doing so more than six or seven days before time required, as it spoils the richness of the colour, and causes many varieties to quill. When confined from the air in too young a state, they do not so freely develope or grow into their true character. Seedlings will require constant attention, particularly if they have not proper distance afforded them in growing, or some of the finest flowers may be overlooked. Dahlias are coming fine this season; many of the new varieties are great improvements on existing kinds of the same colour. Of seedlings, it is too soon to speak, yet there has been some promising kinds sent to the Floral Committee of the Horticultural Society. Before this is in the hands of our readers, the result of the seedling competition at Salisbury and Reading will be known. The third great meeting for seedlings will be at Birmingham on the 20th, when a great meeting of Dahlia growers is expected.

Flower Garden.—The work of propagation will now require much attention, as, on the early striking of the stock for next year, the health and hardiness of the plants will mainly depend. For all kinds of Geraniums, no better plan can be adopted than what we advised in our last, in sticking the cuttings in the open ground (at any rate for the middle and south of England): a south border, over which spread a few inches in depth of light soil mixed with sand, is all that is necessary; it will assist some of the tender kinds, as Mountain of Light, Golden Chain, and Lady Plymouth; to put a sprinkling of white sand at the bottom of the drill, for the base of the cuttings to rest on, make the cuttings firm. When a large stock of soft things is required, as Petunias, Verbenas, Senecios, Ageratums, Lobelias, Anagallis, &c., a cheap way is to make a slight hotbed, two or three feet high, to hold a number of handglasses; cover over with two or three inches of sandy soil, and then, when the soil gets slightly warmed, insert the cuttings in squares, and cover them with the glasses. Shade in bright sunshine, and, when the plants commence growing, give air gradually, and, when fully rooted, remove the glasses altogether. Plants struck in this way are remarkably strong and stocky. As we winter this class in shallow propagating pans, we have only to lift the plants in bunches sufficient to fill a pan, when they are rooted, place them in a sheltered place, to harden off for the winter. All the above may likewise be struck by inserting the cuttings in shallow pots, and placing them in an empty frame. Take care of the seed of choice annuals as it ripens, and mark all good seedling plants, for further trial. For routine, see our last, as to keeping all clean, &c.

Hard-wooded Plants.—Heaths, Epacris, and New Holland plants are very impatient of too much wet, and therefore should heavy rains occur, some means of protecting them should be resorted to, such as by making a slight frame of wood over them, on which to throw some waterproof material during heavy rains. These plants grow much more freely out, from July to the commencement of October, if protected as described. From this season, we should prefer their having the full sun, and to be placed sufficiently wide apart for the plants to grow equally on all sides. Use sulphur over parts infested with mildew, and see that worms do not gain admittance into the pots.

Hollyhocks.—Continue to put in cuttings or plant them out in beds; by these means, a large stock of plants may be procured if diligently attended to. If the seed is sown as soon as ripe, and pricked off into thumb-pots, one in a pot, they will be ready to plant out in April, and will flower well the following August and September.

Kitchen Garden.—The sowing of vegetable crops will be nearly over. A few Radishes, Lettuces, Cauliflowers, and Spinach, may be sown early in the month; to stand a chance, should anything occur to the regular crops, for it is always well to be provided against contingencies; and, therefore, all that remains in this way is to see well to the growing crops, and more especially to fill up all vacant ground with Greens, Broccoli, &c.; thin out winter Spinach, Lettuce, Turnips, and prick out the winter Cauliflowers and Cabbage, &c., hoe and keep clean all advancing crops, earthing up Celery and

Cardoons, and blanching Lettuce and Endive as they advance. Tomatoes against walls should be stopped, and have a few of the leaves taken from before the fruit, to assist to ripen it. The Potato crop may be taken up as soon as the tops are ripened off; the disease has not made so much progress with the late crop as it did with the early ones, but the produce will be small.

Orchard-houses.—Orchard houses are showing their real value this season, where the garden walls present foliage only. The trees in these structures are loaded with fruit—Peaches, Nectarines, Apricots, Plums, and Figs. As it is very desirable to keep these, let the house be kept cool and dry, as the fruit ripens; and the admission of wasps and flies prevented by “Nottingham netting.” These orchard-houses are invaluable.

Peach-house.—Remove the sashes from the late houses, and fully expose the trees.

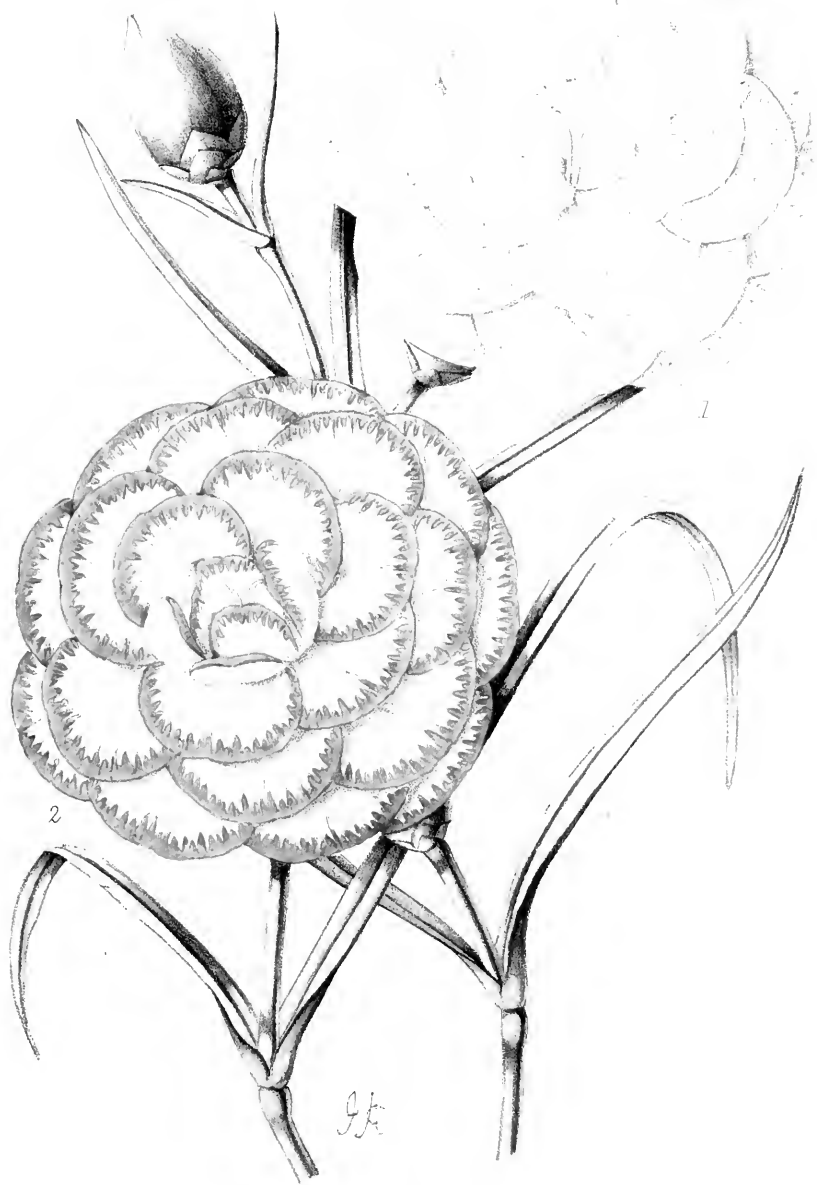
Pelargoniums.—All will have been shaken out by this time; if not, it should be no longer delayed. Those first done for May blooming will have filled their pots with roots, and should receive their final repotting towards the end of the month. The following will be found a very valuable composition:—Two-thirds maiden loam, and one-third sheep or deer dung, all well decomposed; a little silver sand, to assist in keeping it porous. Let the pots be well drained, to allow the water to pass freely. The first struck cuttings should be stopped to make strong bushy plants, and the young stock in general will require much care and attention. Let all plants be well housed and kept warm and dry. Give plenty of air while the weather remains open. Geraniums, to flower well, should make their principal growth before Christmas. Seedlings should be repotted.

Pinks.—Plant out into beds, towards the end of the month, for next season's blooming; should the weather be wet, defer it for a little. Pinks thrive best in a good rich soil, and should be planted about six inches apart.

Pinery.—Finish potting the plants to fruit next year, as the succession pits are cleared, to fill up the fruiting houses; set the young plants wider apart. Fruit swelling should be kept moderately moist, and will require a little fire-heat when the night temperature falls below 60°. Renew the linings to plants grown by dung-heat, so as to keep the night temperature 60°, as above. The largest fruiting plants required to produce fruit next March, April, and May, should now be kept comparatively dry, and have a large share of air, to throw them into a state of rest.

Tulips.—The soil should now be prepared for blooming these in. Look carefully after the roots, the green-fly being so apt to attack them. Fumigate if necessary. Finally, arrange the roots preparatory for planting.

Vinery.—Late Muscats should at once have fire-heat applied, to assist their ripening; and this will also apply to the St. Peters, if not likely to ripen without artificial assistance. Let the air of the houses be kept dry, with as much air as can be admitted safely. Now is the best time to prepare composts for new borders.



Picotees.

1. *Rev'd A Mathews*. (Kirtland)
2. *Rival Purple*. (Heady)

PICOTEES.

(PLATE 156.)

ONE consequence of the utter absurdity of having the National Carnation and Picotee Show at the time it has been held the last two years, is, that there is no good opportunity afforded of testing the comparative value of the new flowers which North and South are respectively bringing before the public. I was at Mr. Turner's about a week before the said show took place, and there was not a single bloom left on all his plants, nor had there been one for a week previous. If anybody could by management keep back plants for the show, *he* could; his immense stock giving him an advantage over most other growers, and this was fully borne out by the fact that not one southern grower entered the lists. Might I not ask whether it would not be possible for the southerners to band together and have an exhibition to themselves, at a time suitable to them, for the present state of things is most unsatisfactory? But, whatever may be the opinion of the public in this matter, there can be no doubt of the value of the two flowers of which we give a portrait in our present number. The purple-edged Picotee was raised by that veteran grower and hybridiser, Mr. Headly, of Stapleford, the originator of King James, which has been the parent of very many of the heavy flowers. When I was with him the other day, we had a talk over these flowers, and, notwithstanding the multifarious objects of his attention (for I really do not know what he does not grow), Carnations and Picotees claim still a little of his affection. Besides the one figured he has another purple, and I saw the old stool layered of a red-edged heavy flower, which will not be let out this season, but which he believes to be the best flower ever yet raised. The one now figured—a child of John Linton crossed with King James—is large in size, the colour bright and confined to the edge, and the habit and constitution of the plant excellent; this I can vouch for, having seen the entire stock at Slough. The heavy-edged rose is a seedling of Mr. Kirtland, already well known for many excellent flowers, and is said to have been raised from Maris's Unexpected. Here, too, we have quality; the habit of the plant is good, though not so strong as the purple; indeed, growers of Picotees know that this is generally the habit of the rose-edged varieties, and yet there is no class more attractive, whether we take the heavy or light-edged varieties. I am glad to find these new ones coming out, for the retirement and

death of some of our most celebrated raisers of seedlings—May, Puxley, and others—made me rather fear that we should not see novelties. Notwithstanding the unfavourable nature of the season, the stocks that I have seen look healthy; and, as far as my own little number is concerned, I never had better or more healthy increase. Will not some energetic friend of this flower endeavour, without injuring the National Show, to get up one for the southern counties of England, to be held in July? Mr. Turner has too much on hands to do it. Can no one else be induced to do it?

I herewith subjoin a fuller description of the two flowers, with a list of first-rate varieties in each class.

Rev. A. Matthews, heavy-edged, colour a soft rose, much like Unexpected, but flower much larger and more full; strong grower. It was highly commended by the Floral Committee of the Horticultural Society, in July last. This variety was raised by Mr. George Kirtland, of Bletchington, a successful raiser and grower.

Rival Purple, a heavy-edged flower, colour very rich purple, good white, without spot or bar; it is large and full, and a fine healthy grower. This was likewise highly commended by the Floral Committee of the Horticultural Society, in July. This variety produces flowers much larger than is indicated in our representation, and is a very great addition to existing kinds of this class, as well as the rose, and is one more of the gems produced by that veteran florist, R. Headly, Esq., of Stapleford.

Our former representations of Picotees were—

Duchess of Sutherland	(Burroughes)	} <i>Florist</i> , 1849.
Lorina	(Burroughes)	
Alfred	(Dodwell)	} <i>Florist</i> , 1851.
Mrs. Norman	(Norman)	
Mrs. Drake	(Turner)	<i>Florist</i> , 1855.

I subjoin a list of the best varieties in each class:—

HEAVY RED.	HEAVY PURPLE.	HEAVY ROSE.
Dr. Pitman	Countess	Alice
Mrs. Hoyle	Lord Nelson	Helen
Mrs. Dodwell	Mrs. Bayley	Mrs. Drake
Mrs. Norman	Mrs. May	Queen Victoria
Prince Albert	Rival Purple	Rev. A. Matthews
Sultana	John Linton	Venus
LIGHT RED.	LIGHT PURPLE.	LIGHT ROSE.
Ada Mary	Amy Robsart	Ariel
Charles Turner	Eliza	Bertha
Eugenie.	Finis	Crystal
Lauretta	Mrs. Hobbs	Mrs. Turner
Lavinia	Mrs. Eyre	Mrs. Barnard
Miss Holbeck	National	Miss Puxley

Deal, Sept. 24.

D.

THE AURICULA.

THE Parthians of old used to hit hardest as they retreated; and I cannot but hope that "D." of Deal will be found to have made a successful hit in retreating from his untenable position as an opponent of the present system that obtains among Auricula growers. His notion of a National show I like well, for the very reason that I dissent from him on the subject of the fusion of classes. If a National show can be organized, we may hope to see an advance in the prevailing notions respecting that flower, as we have in all others that have been subjected to that ordeal, whereas fusion is by its nature retrograde.

I think it most probable that I shall not be able to compete for a prize, except the chief of all, namely, the show itself. But I willingly put my name down as a subscriber for a guinea towards the objects in view. With an expressed hope, however, that the day may not be, as unintentionally suggested, so early as to suit southern growers only. Should the proposition take, and the funds admit of it, I think it would tend to show the comparative merits and demerits of Lancashire and London ideas respectively, if besides class showing, and prizes for premier trusses, and perhaps also pips, prizes were also given for collections, say of twelve or twenty-four. It seems to me that for want perhaps of mutual contact, the two systems are diverging farther asunder instead of assimilating, and each to its loss. London is growing more careless of "properties," Lancashire more exclusive. If Lancashire makes a pet of the "long-legged" Emperor, London at least has no right to laugh at it, while it strides into the lists with Duke of Wellington for its cognizance. Surely Emperor is better than that. Let both these be seen in company, with better flowers in the same stand, with Booth's Freedom from Dr. Plant's stages, and with some more of his "Cauliflowers;" and the discussion on comparative merits, with picked specimens under the eyes of the disputants, will speedily work a change for the better in all our notions, perhaps including those who think the Auricula a tame and uninteresting flower.

Regarding the proposal for fusion, I have called it a retrograde movement. I will explain what I mean. Precision and definite ideas are just what we most, and most evidently, want. Now, we are taught that the first step to precision is to arrange and classify; to disentangle from the rest, and to separate into groups whatever are distinguishable from other groups by natural marks common to themselves and wanting in others, is the legitimate province of scientific classification. Growers have come to the conclusion that four such classes may be distinguished in the cultivated Auricula. Are these distinctions existing in nature, or are they not? If they are, to throw them together again is to confuse, and to go backward instead of forward. Now, I think no one will deny that there are pure examples of each of the four classes; and, if so, it is no answer to say that many of the best flowers are not pure examples of any of them. As well may you scratch out of your vocabulary the words "child, boy, youth," because many good specimens of human nature are in a transition state between two of these conditions,

and not exclusively referable to either. Neither do I wish to see a large and heterogeneous class compounded of the nondescripts of all classes. The very notion savours of the slovenly; of the attempt to avoid trouble, which is the natural inheritance of those who live in a world in which there are no hard outlines, in which even the animal and the vegetable kingdoms are interlaced, and much more green-edged Auriculas and grey. At present, cultivation has elicited from the original species *Primula Auricula* no more than four legitimate classes of varieties, but it has established those. And admitting, as I do, the necessary imperfection of all classification, I shall be perfectly satisfied when I exhibit Duke of Cambridge, Lancashire, Sir John Moore, True Briton, and other borderers, to leave it to the appointed judges to apportion the items of compensation, and to settle how much must be detracted from the merit of any of these on account of an undecided edge, and yet leave it an ornament to the stand, and a promising candidate for a prize. "D." is quite right in saying a grey with a dash of green in it is often the most attractive condition of an edged Auricula. It is so, and yet the condition itself may be an inferior one, and allowance ought to be made accordingly in deciding on the claim to a prize. It is a defect, but not a disqualification. It is a defect, though in some specimens, and under certain circumstances, it adds to the beauty; this is not uncommon. Angularity in any of the zones is an analogous case; in the abstract, and generally, it deteriorates. In *Imperator*, Fletcher's *Ne Plus Ultra*, and some others, it adds positively to the effect. Yet it also must be allowed for, though not to the same extent, in apportioning a prize.

It is the more important now to settle the principles that are to guide our estimate of the properties of this flower, because we are getting to greater variety in the newer seedlings than heretofore; and it is unworthy of men of sense to cling to old landmarks, which were good in their time, but which nature itself has now made obsolete. It may move a smile in the possessor of Chapman's flowers, to hear them derided by nicknames, but it will be a smile of satisfaction at conscious possession.

Populus me sibilat; at mihi plaudo ipse domi. Such treatment will not retard for a day the growing desire in others to possess them also when they see them. Of course it will not. We are not children; we trust our own eyes, not the *ipse dixit* of self-constituted authorities. The colours of these varieties are unequalled, of one of them unapproached; and, if they have faults, they share *that* property with every Auricula grown, while they are confessedly the greatest ornaments of our stages. Let those faults therefore be carefully estimated in demerit, as their beauties for merit, and the fair balance struck. One of the benefits of a National show, and of large stands, will be the bringing together well-grown examples of the best of Dickson's, Chapman's, Lightbody's, Headly's, and other modern raisers, with the Colonel Taylors, Freedoms, and Privateers, of more established repute; and I for one have no doubt that the moderns will have no reason to regret the comparison, even though some recent ones of high name and price, will, I think, be consigned to a more modest position than they now hold in the catalogues.

"D." has announced that "Φ" has given up *Auricula* growing; and while all who know him, personally or by the pen, will share with me the regret that his health has made this sacrifice advisable, I think I may take the opportunity of expressing a hope that his singular power of discrimination and comparison may aid "D." in his project, if it comes to maturity. I never yet saw his accuracy of eye, both for foliage and flower, at fault, when a variety either unnamed or wrongly named was before him. He has sometimes reminded me of the marvellous but well-attested feat of the late Mr. Capel, by the sense of taste, who correctly named each of a series of samples of tea, submitted to him for examination as if unknown, but which were only selected on purpose to test, without his being conscious of it, his unrivalled powers as a tea taster. I think "Φ" has something like a similar power of vision.

IOTA.

GLADIOLUS FOR AUTUMN DISPLAY.

THIS class cannot be too strongly recommended to all lovers of gay flowers. Nothing can be more gorgeous than their colours, nothing more easy than their culture; and their price (excepting with very recently raised kinds), places them within the reach of the many, and, besides, they may very readily be raised from seeds. *G. gandavensis* hybrids are the most showy and most generally useful. Nothing can well exceed the beauty of many of the varieties, as *Brenchleyensis*, *amabilis*, *Comtesse de Bresson*, *Daphne*, and many others; these may be planted in April and May. Any common sandy soil will suit them, if enriched by digging in a little rotten leaf-soil, but the soil should be moderately deep and open, to allow the roots to descend, and at the same time well drained. We advise the bulbs to be potted soon after Christmas, and plunged under some dry material behind a north wall, so as not to excite them beyond making roots, and in April they may be planted to form the first show of bloom. Bulbs of the same kind planted at the same time, which have not been potted, will bloom a month later, and by selecting the kinds which succeed each other, a succession may be had from July to November.

When planted in groups by themselves, as they are deficient in foliage, to make a good bottom, they should always be mixed with other things, to fill up. On the Continent, young *Asparagus* is largely used, but this would hardly be considered dressy enough for a first-rate English parterre. *Cineraria maritima* and *Verbena venosa*, mixed, and the bed filled up with hybrid *G. gandavensis*, produces a mass of colour quite magnificent. The different species of *Indian Shot*, which are easily propagated, and grow well during the summer in the open ground, form an admirable bottom; their fine foliage forming a suitable base for the grand scapes of the *Gladiolus*, which are strikingly beautiful, rising above them. Some of the strong growing hardy Ferns, if their culture could be attended to, would be extremely suitable, and the combination would be unique. When *Arundinaria*

falcata becomes common enough to plant extensively, a bed of it, filled in with Gladioluses, would form one of the most beautiful objects possible to imagine, treating the Arum-linaria as the subordinate plant. All the sections—that is, the hybrids from gandavensis, ramosus, and cardinalis—are well adapted for planting among American plants, or among any low growing shrubs, where the blooms can rise above the mass of foliage. In these situations the ground should be well loosened, and a little decayed leaf-soil and sand added on heavy soils. The effective show Gladioli make during autumn in any of these situations, is such that, when once seen, they will become, as they deserve to be, universal favourites, and we cannot too strongly recommend them.

ECONOMICAL CULTURE OF FRUIT TREES.

(Continued from page 200.)

AT the conclusion of our former article, we stated that two shoots from each tree should be tied out to stakes in the direction the rows are to run, and as wide as three or four feet apart; it ought to have been, *two shoots from each side of the tree*. If the tree at planting has more than four good branches the rest may be cut away, and the trained shoots should be cut back one-third of their length; this will induce the trees to break vigorously the following spring, and from the wood thus produced eight, ten, or twelve of the best placed shoots will have to be selected, during the summer, for forming the skeleton of the future tree, cutting away the rest. At the end of the first season after planting, the trees will have four primary branches, trained two or three feet from the ground, in the direction of the row, and slightly elevated towards the extremities; and each branch furnished with two or three upright shoots to form the tree. As the habit of the Apple varies considerably—some growing upright, others horizontally, and a few pendulous—this will have to be taken into account; and a few stakes, and some training, will be required with a few kinds before the proper form has been gained. It must, however, be borne in mind, that I by no means intend to introduce a system of training to effect my object beyond that of a very elementary character. I simply recommend that the trees should form a continuous kind of Apple hedge (if I may so term it), each tree filling up a space of from 7 to 10 feet in length, and 6 or 7 feet in width; the height of the rows should be kept at from 12 to 15 feet, according to the variety. Anyone at all acquainted with the habit of the Apple will soon get them in this form by attention in selecting the wood to remain permanently, and summer pruning. More care will be required with those of weeping habit; but even with these a small amount of training will suffice to form the outline of the tree, when short cutting-in will effect the rest.

If the orchard is extensive it will be well to keep the strong-growing kinds by themselves, allowing them a larger space each way than need be given to the weaker growing kinds, which, again, should be planted towards the middle of the ground for additional shelter. When the

trees are full-grown the orchard will present the appearance of a series of *hedges*, from 12 to 15 feet high and 6 to 7 feet through, leaving a clear space between the trees of from 7 to 8 feet, which, while the trees are young, may be occupied by Gooseberries, Currants, &c., all of which must be cleared away as the roots of the Apple-trees extend themselves, and also to admit the sun and air between the rows.

By a well-arranged system of summer pruning, the main branches of the trees, as well as the subsidiary ones, will be furnished with fruit-bearing spurs from within 2 or 3 feet of the ground to their summit, but this will only follow after close attention to summer pruning, from the time the tree is planted. After the number of shoots to form the tree is decided upon, everything else must be pinched out with the thumb and finger; and so, each season, no summer wood, except what is required to fill up the tree, should be allowed to grow beyond 5 or 6 inches, when it should have its end pinched off; no doubt it will throw out wood again from the uppermost eyes, which must be again stopped when 2 or 3 inches long, and the shoot finally cut down to within two eyes of the base in September; but this process, while it entails some trouble, will also act powerfully in inducing the production of fruit-bearing spurs at the base of the stopped shoots, after cutting back; and these when once formed, and exposed to light and air, will remain permanently fruitful for many years; whereas, had the shoots remained unstopped till winter, and then been pruned in the ordinary manner, the main branches in the middle of the tree would soon grow naked, and become irrecoverably barren of fruit-spurs. By following up the practice of disbudding and stopping, it is quite practicable, not only to induce so moderate a growth in trees of even the strongest habit, that they may be kept for many years within the bounds we have allotted them; but the main branches may also be kept clothed from bottom to top with productive fruit-spurs by the same system, presenting in the aggregate a larger number of spurs capable of bearing fruit than orchard trees three or four times their size, under the ordinary system of management; and if we take into account the close arrangement of the trees in our plan, we shall not be far wrong in saying that during an average of years, fully three times the quantity of fruit will be the result of the hedgerow plan, as compared with standard planting. We might carry the comparison further and ask the question, how far fruit is superior grown on trees, all whose energies are carefully directed to its growth and maturation, than on those produced on unpruned standard trees, generally overcrowded with old wood; and invariably so with the same season's growth. We know that the magnificent fruit exhibited by Messrs. Snow, Whiting, Bradley, Frost, Harrison, and many others of our best gardeners, are the result of careful pruning; and it is for such reasons we maintain, both on the score of economy and profit, that well-managed dwarf trees will prove more profitable than large ones, and that a larger quantity of fruit can be obtained from a given space of ground by dwarf trees than by standards, when systematically managed.

The hedge Apple system has, however, other advantages, which should not be lost sight of by fruit-growers. By following the arrangement

described, the trees protect each other in the spring from cold cutting winds, and if protected on the outside to the north, and east, by the shelter of a plantation or high ground, would most effectually screen each other. The same rule follows when laden with fruit in autumn, as the fruit will not be so liable to be blown down as from standards, or even from dwarfs, when the wind is allowed to play all round them. The space between the rows should on no account be cropped when the trees are fully grown, but as soon as the roots have extended themselves across the space just named a mulching of half decayed dung, leaves, or, indeed, any kind of litter, two or three inches thick, will materially help them, if spread between the rows in May, and allowed to remain all the summer. We do not advise either digging or forking up the ground, unless it becomes very hard and baked, as the mulching will encourage the roots to the surface, and digging the ground will only destroy them. Weeds must be kept down, and the sun allowed to have free access between the rows, the action of which on the roots of the trees, brought near the surface by mulching, and exposed to its influence, will greatly assist the trees in becoming fruitful and keeping them so. We cannot conclude without noticing that this method of planting presents great facilities for preventing the mischief often caused by the caterpillars of the different species of *Bombyx* and *Geometra*, which, during the months of May and June, when the caterpillars infest the trees, commit great ravages on the flowers and foliage; to stop this slow-burning fires should be lighted between the rows, the smoke from which will spread through the trees and keep in check these pests to orchards. The fires may be kept supplied with any rubbish not too dry, that the smoke may be dense enough to be effective. A writer in your periodical, a few years since, described an orchard, which had a fine crop of Apples, preserved solely by lighting slow-burning fires under the trees during the continuance of a frost which destroyed the fruit crop in adjoining orchards. I am not going to say that the effects of frost may be prevented altogether by this plan, but that smoking the trees by fires of rubbish will prevent the ravages of caterpillars, I know from experience, and where the materials exist, the trial might be made as a preventive against frosts.

G. F.

THE NATIONAL DAHLIA SHOW FOR 1859.

THIS exhibition took place at Aston Hall, Birmingham, on September 20. The holding the meeting in the midland counties enabled growers from all parts to attend, including Dublin, which was represented by Mr. Campbell. Late as the day was, the flowers were very large, and in many instances very fine, and they also exhibited great variety.

The nurserymen's classes consisted of 50 and 24 varieties, exhibitors in the former not being allowed to show in the latter. In the fifties, the first prize was awarded to Mr. C. Turner, Slough, for Commander, Lady Mildmay, Mrs. Huntley, Lord Bath, Sir R. Bruce, John Dorey, Lord Palmerston, Pandora, Chairman, Rosebud, Duchess of Kent, Sir

Henry Havelock, Dr. Gully, Daughter of the Morning, Peerless, Disraeli, Goldfinder, Midnight, Emperor, Flower of the Day, J. Franklin, Sir Charles Napier, Mrs. Church, Mentor, Conqueror, Lord Cardigan, Hon. Mrs. Trotter, Triomphe de Pecq, Lord Eversley, Miss Pressley, Pluto, Merveille, Rachel Rawlings, Eclipse, Lollipop, Touchstone, Sidney Herbert, Beauty, Standard Bearer, Cherub, Pre-eminent, Miss Watts, Perfection, Lady Taunton, and six seedlings; 2nd, Mr. J. Keynes, Salisbury; 3rd, Mr. Kimberley, Coventry; 4th, Mr. J. Harrison, Darlington. In 24 varieties, the first was awarded to Mr. Walker, Thame, Oxon, with Empress, Colonel Windham, Miss Pressley, King, Marmion, Triomphe de Pecq, Sidney Herbert, Chairman, Miss Chetwode, Sir J. Paxton, Venus, Grand Sultan, Touchstone, Satirist, Mrs. Wheeler, Fanny Keynes, Goldfinder, Admiral Dundas, Annie Rawlings, Honourable Mrs. Trotter, Lollipop; 2nd, Messrs. Wood & Ingram, Huntingdon; 3rd, Mr. Legge, London; 4th, Mr. Sealey, Bristol; 5th, Mr. Baylis, Wolverhampton; 6th, Mr. Heath, Cheltenham. Fancy varieties, 24 blooms: 1st, Mr. Keynes, Salisbury, with Baron Alderson, Countess of Derby, Zebra, Charles Perry, Cleopatra, Oliver Twist, Leopard, Flirt, Triomphe de Roubaix, Madame Albani, Favourite, Marc Antony, Bayadere, Duchess of Kent, Lady Paxton, Conqueror, Sportsman, Miss Frampton, Jessie, Pretty Polly, Rev. Joshua Dix; 2nd, Mr. C. Turner; 3rd, Mr. Kimberley.

In 12 Fancies for Nurserymen not exhibiting in the class for 24, the first prize was awarded to Mr. Legge, for Marc Antony, Lady Paxton, Miss Herbert, Triomphe de Roubaix, Papilio, Pigeon, Baron Alderson, Cleopatra, Tiger, Duchess of Kent, Comus, Butterfly; 2nd, Messrs. Wood & Ingram; 3rd, Mr. Walker; 4th, Mr. Campbell, Dublin.

If nurserymen were represented by such growers as Turner, Keynes, Kimberley, Harrison, Wood & Ingram, Walker, Legge, Campbell, Baylis, Heath, and Sealey, amateur growers were equally strong by being represented by the Revs. C. Fellowes and C. Roe; Perry, Hopkins, Cook, Lofley, and Thornycroft. The first prize for 24 varieties was awarded to the Rev. C. Fellowes, for Pre-eminent, Venus, Mentor, Chairman, Touchstone, Peerless, Fanny Keynes, Sir J. Paxton, Miss Pressley, Triomphe de Pecq, Pioneer, Satirist, Sir Robert Bruce, Miss Caroline, Commander, Lord Cardigan, Lemonade, Knight of the Bath, Golden Drop, Rosebud, Lady Popham, Wallace, Lord Palmerston, Mrs. Church; 2nd, Mr. C. J. Perry, Castle Bromwich, Birmingham; 3rd, Mr. Thornycroft, Floore; 4th, Mr. Brown, York; 5th, Mr. Horton, Coughton Court. In 12 varieties, the first prize was awarded to Mr. J. Lofley, Brigg, Lincolnshire, for Pandora, Admiral Dundas, Miss Watts, Mrs. Church, Lord Cardigan, Gold Drop, Commander, Chairman, Lord Palmerston, Fanny Keynes, Sir H. Havelock, Venus; 2nd, R. Hopkins, Esq., Brentford; 3rd, Mr. Hobbs, Bristol; 4th, Mr. Thos. Goodwin, Holdgate House, York; 5th, Mr. Cooper, Castle Bromwich; 6th, Rev. C. Roe, Ipswich; 7th, J. Cooke, Esq., London; 8th, Mr. Woodward, Coventry. In fancy varieties the first prize was awarded to Mr. C. J. Perry, who exhibited Lady Paxton, Countess of Derby, Cleopatra, Charles Perry, Flirt, Duchess of Kent,

Miss Frampton, Favourite, Butterfly, Oliver Twist, Inimitable, Countess of Bective; 2nd, Rev. C. Fellowes; 3rd, Mr. Thornycroft; 4th, Rev. C. Roe. Six fancies: 1st prize, Mr. Hobbs, with Baron Alderson, C. Perry, Lady Granville, Lady Paxton, Gloire de Kain, Jupiter; 2nd, Mr. Cooper; 3rd, Mr. Woodward; 4th, Mr. Goodwin.

Seedlings formed a great feature; they were both numerous and good; many of the kinds will be found in our best collections for many years to come. Not less than three blooms each were shown. First class certificates were awarded to Harlequin (Grant), a striped fancy, yellow ground, with bright red marking, the colour most evenly and beautifully distributed, and of fine form; Lilac Queen (Grant), pale lilac, finest form; Lady Taunton (Turner), white edged with bright crimson, full size, great depth, and new; Sir J. Radcliffe (Grant), maroon; Pluto (Turner), dark fancy, maroon tipped with white, of great depth; Alba multiflora (Turner), a pure white kind for bedding; Queen Mab (Turner), fancy, scarlet and white, large and fine; Mrs. H. Vyse (Church), white edged with purple. The two latter received second class certificates. The above were contributed by Mr. C. Turner. Mr. Keynes also sent a large number of seedlings. First class certificates were awarded to Lady Pennant (Keynes), pale yellow; Mrs. Wellesley Piggot (Keynes), pure white, very fine flower; William Dodds (Keynes), deep yellow; Sir Geo. Douglass (Dodds), yellow tipped and veined with red;—and second class certificates to Leopard (Keynes), striped fancy; Mr. Boshel (Rawlings), buff; and Jenny Austin (Keynes), lilac. Mr. C. J. Perry received a first class certificate for Acme, a pleasing light flower, of good form; and Earl of Shaftesbury, a light mottled purple, of good size and form. Mr. S. Hodges, Cheltenham, received a first class certificate for Model, a small buff flower, of good outline. The same award was made to Mr. Addis, Gospel End, Wolverhampton, for Oscar, a red flower, with fine petal and outline.

In addition to the certificates just enumerated, eight money prizes were awarded for seedlings, six blooms of a kind. These were awarded as follows:—1, Lady Taunton (Turner); 2, Acme (Perry); 3, Lady D. Pennant (Keynes); 4, Jenny Austin (Keynes); 5, Mrs. W. Piggot (Keynes); 6, William Dodds (Keynes); 7, Miss Chetwode (Walker); 8, Sir G. Douglass (Dodds).

THE ROYAL GARDENS, FROGMORE.

As an account of these gardens has appeared more than once in the *Florist*, I do not hope or expect to give any very fresh information about them; in fact, my simple object is to state the impression they made upon me, and wherein I consider their excellences or defects to be. It is more than twelve years since I had visited them before, and they were then, comparatively speaking, new; the trees were young, and all about it had the appearance of a place not yet formed. Twelve years, under the management of such an experienced hand as Mr. Ingram, must needs have made a vast difference, but I was certainly hardly prepared for such rapid progress as had evidently been made. It may

be as well to say that Frogmore is a sort of compensating garden, in lieu of two or three other royal gardens, which, being formerly each under a separate head, were very expensive; and as each did not know what the other was growing, the royal household was never properly supplied. Frogmore was bought and enclosed, and a most perfect system of supply carried out, so that the immense establishment is always provided with the rarest and most costly fruits and vegetables. The extent covered by them is somewhere about 34 acres, and the wall presents a surface of upwards of two miles; the iron trellis for Pears and Apples being upwards of a mile long, while the houses for forcing fruit are of immense length—that they must needs be so will be gathered from the fact, that between two and three tons of Grapes, and 800 dozens of Apricots, and the same of Peaches and Nectarines, have been supplied from these gardens, in the course of one year, for the royal household—and I have no doubt that the royal “Jeameses” and “Abigails” do not come in for the worst, or the least share of them;—that Grapes are to be found on the royal table nearly every week in the year, and that French Beans and Cucumbers are always in abundance. Although it is not celebrated as a flower-garden, Mr. Ingram has been successful in raising some excellent Geraniums and other flowers, and takes a great deal of interest in the whole subject of hybridizing.

I was conducted through the fruit-houses by Mr. Powell, under whose management the hardy fruit department is, and who is well known to the readers of the *Florist* by his valuable contributions to its pages on fruit culture; and the great object is to save both time and labour. The plan of growing the Pines in pits, planted out, is an immense saving of trouble, and so effectively is it done that only eighteen months elapse from the time the sucker is taken off the old plant till the delicious and fragrant Pine is ready for table. Of this the queen of fruits, all the more celebrated kinds—Cayennes, Providence, Queens, &c.—were in growth, and looking remarkably healthy, the handsomest fruit being, probably, the smooth Cayenne. Why this plan, saving so much expense and trouble, is not more generally adopted, is a puzzle, save that we English are very slow to adopt improvements, however desirable. In sad contrast with this was the Pinery of a friend I saw the other day, I have no doubt costing him a mint of money, but nothing in it worth looking at, and no prospect of any fruit. The early Grapes were of course over, and late ones were in a state of forwardness;—these, which are West’s St. Peter’s, will begin to fruit about January, and will supply the royal table until nearly the end of March, about which time the early ones will be coming on, and thus the succession is kept up. In the same way, the Peaches and Nectarines were now drawing to a close in the houses and were coming in on the walls; but before these are used, there are some trees which simply have a glass case before them, without any heat, and these will just supply the break where the house fruit ends and the wall fruit begins. All the trees which had been forced had had the top lights taken off, and were receiving the full benefit of sun and air for the ripening of the wood. I noticed, too, that the young shoots are allowed to grow on the wall-trees, and were just being cut and laid in when I

was there ; by this means protection is given to the young fruit, and the wood has a better chance than if nailed in earlier ; nothing could be more vigorous, even in this unfavourable year, than the appearance of the trees. The same abundance was noticeable in the smaller fruits ; houses for forcing Cherries ; others in which Plums were coming in fast, among them two very fine trees of Jefferson—a favourite Plum here. In the same way, Strawberries are largely cultivated, both forced and in the open air ; they were now nearly over, save the Alpine, which was in large quantities, and is a great favourite with H.R.H. the Prince Consort. Apples and Pears were, as everywhere, a failure, though last year the trellis was covered with fruit, and must have been a beautiful sight. I must not omit to mention here the ingenious plans that are adopted for the purpose of economising time and labour in the ventilation of the houses ; by a very simple contrivance, one man can open all the front sashes of a house 150 feet long, by simply turning a crank, and the top lights are let up and down by another simple plan, which effects the object with very little effort.

The vegetable garden, which is under the able superintendence of Mr. Marr, was, of course, well stocked. Here all the new and valuable sorts of esculents are tried, and many of them originated, the latest being the Frogmore Protecting Broccoli, which promises to be a valuable sort. I learned that *Dioscorea Batatas*, like a good many other things greatly puffed up, was a failure—that it strikes its roots so low, that a man's labour in digging it would never repay the trouble, even were it a much better thing than it is ; as to its being a substitute for the Potato, *soft* people may believe it, but that it will never be—a few years, and it will probably be amongst the things that have been. Frames are of course largely used for forcing vegetables, Potatoes and Carrots, and salading of all sorts, being brought forward in this way—three crops in the year being generally taken out of them.

Nor would I be supposed as saying that flowers are neglected. Far from it ; both in the houses and in the grounds there were many things of interest—among them two seedling bedding Geraniums, which I think are likely to prove of interest—but it is not *the* feature of the garden, nor that for which it is so celebrated. And was there nothing to find fault with?—was I so lubricated by the spirit of loyalty as to become a floricultural “Oily Gammon?” No—not so ; but my fault-finding has nothing in it that can reflect on those in whose hands it is, but to whomsoever (I believe it is “the country,” and we are safe in abusing *it*) the providing for it depends on. When the gardens were originally formed there was a staff of about 33 or 34 men, a man to an acre. The trees were young—the ground not filled—and possibly they could at that time have compassed the work ; but is it not absurd to suppose, that while everything else has increased, the houses been added to, the requirements of the royal household been greater, that the same number of persons is sufficient for the work ? Nor is this mistake uncommon ; I noticed it at Dropmore and other places, and the result consequently is that weeds cannot be kept down, and the extreme neatness that ought to mark a *royal* garden is not attained ; the wonder to me is, that with so limited a staff so much is done. Mr. Thomas

Ingram, jun., ably cultivates the large succession of blooming plants required throughout the year; and Mr. Murray superintends the forcing department with great ability. D.

Deal, Sept. 24.

PTERIS ARGYRÆA.

THIS new Fern proved to be a beautiful object of an entirely distinct character, being the first well-marked variegated Fern introduced to cultivation. The Floral Committee of the Horticultural Society unanimously awarded it a first-class certificate, as being an entirely novel ornamental plant. It has been introduced from Central India by Messrs. Veitch. Habit vigorous; fronds five feet long, including the stout stipes, which is scaly below, and occupies about half of the entire length; ovate in outline, about two and a half feet wide at the base; pedately bipinnatifid, the two lower pairs of pinnæ usually, sometimes the third also, having a posterior basal branch; segments of the pinnæ obtusely linear subfalcate, $1\frac{1}{4}$ inch long, somewhat wavy, spinulose on the upper rachis, the terminal one caudate. The peculiar beauty of the Fern is owing to the base of each segment, for a quarter of an inch or more of its length, being of a silver-grey colour, so as to produce a broad silvery stripe about three-quarters of an inch in breadth down the centre of each of the pinnæ and of their branches. It is a most valuable addition to our garden Ferns.

PLANTING AND PLANTATIONS.

“WHEN are we to reform our planting?” said a gentleman to us the other day—a man of taste and a large planter himself. “I am tired of witnessing the ever-recurring mixed shrubbery, and the bad taste and worse economy of modern plantations. Do write something about it, for since the death of Loudon no one has ever mentioned the subject, and I believe planters themselves have become quite indifferent to the subject.”

We have long felt the force of the remarks addressed to us. The subject of planting is a national one; not, perhaps, imperatively so, as was once considered, but a very important one even yet to land proprietors. As, however, a dissertation on planting generally would be out of the question in our pages, we shall confine our observations solely to the subject of ornamental planting.

As a matter of taste, ornamental planting in Britain ought to be far in advance of that in all other countries, for nowhere besides can such materials be obtained; in no other country does the climate agree with so large a number of plants; and nowhere else do the means exist, or the opportunities occur, for carrying out ornamental planting on a large scale. On these grounds, many foreigners of taste have expressed to us their surprise at the trifling attempts which have been made to arrange the extensive collections of ornamental plants, evergreen and deciduous,

with which our nurseries and private gardens abound, under some combination which should show their capability for producing artistic effects vastly superior to anything our shrubberies or park plantings can produce. In Germany, where there are only a few evergreens which will stand the severity of their winters, German gardeners have the art of massing their deciduous shrubs most admirably in reference to their habit and colour, and by such means produce striking combinations and contrasts, even with the most common flowering shrubs. Let us ask the question whether, if the same attention, and the same amount of thought and discussion, had been bestowed on planting, as an art, as has been given to the designing and planting of modern flower-gardens, British plantations would not take a much higher position, as artistic creations, than can now be awarded them? We think so. But the modern mania for flower-gardens with stripes and ribands and edgings, *ad infinitum*, has diverted attention from a most important point of gardening. Gay-coloured flower-gardens are all very well when not overdone, as we so frequently see is the case; but we must remind our readers, that ornamental planting is capable of producing effects far more pleasing and lasting than even the beautiful productions of the flower-garden, however well disposed.

Let us look, for example, at what is called a shrubbery, or garden plantation, and which may be met with almost anywhere, and we shall find a pretty regular mixture of evergreens and deciduous shrubs, the latter represented largely by Laburnums, Sumachs, Lilacs, Syringas, Spiræas, &c.; while of the former, Portugal and common Laurel, Laurestinus, Mahonias, Phillyreas, Arbutus, and Hollies, will form the greater portion. Plant the tallest plants at the back, if it is a belt, or in the centre, if a group, and the lowest at the front, and divide the evergreens and deciduous plants regularly throughout, and you have a good idea of ornamental planting, as generally witnessed, and of ornamental plants, exclusive of Conifers and American plants.

To us it appears that planting, whether intended to form a decorative feature in dressed grounds, or simply as blinds to block out the objectionable parts, should be considered in a two-fold character: First, as furnishing or clothing the surface of the ground, so as to give it a certain character or expression, as well as to back up and support any architectural features which may be present; and, secondly, as showing the individuality of trees and shrubs as to habit and outline, and their capability for producing a certain effect, either through massing individual or different species together, as the case may require, to form the whole or parts only of the scenery. And so with colour, in which both deciduous and evergreen trees present an almost endless variety of shades, which, when arranged with the hand of taste, may be worked up, either in combination or contrast, so as to complete the pictorial effect of the whole.

It must be obvious to the most casual observer that there is a something in the habit and appearance of deciduous plants—indefinable, perhaps—but which prevents their harmonising with evergreens, when planted together; and that the want of this harmony should teach us that, to produce the most powerful effects with each class, in forming landscape scenery, each should be planted separately.

(To be continued.)

THE HYACINTH.

WE extract the following from Butler and McCulloch's interesting Catalogue of Dutch and other Bulbs, just published :—

The Hyacinth, like the Rose, is a universal favourite ; for although diversity of taste occurs in floral matters, as in all others, the Hyacinth is never questioned. Every body loves it for its beauty and fragrance ; and it may, with justice, be termed a "household flower." It will thrive almost in any soil or medium capable of retaining moisture ; and will flower almost as finely when grown in water, or moist sand, as when planted in the richest compost.

Culture of the Hyacinth in Glasses.—Of all the plants with which we are acquainted, the Hyacinth is the most suitable for this elegant, although somewhat unnatural, system of culture. Its roots, like those of other plants, shun the light with instinctive care ; therefore, dark-coloured glasses should be selected. Place the bulbs on the glasses, and fill with pure rain water to within a quarter of an inch of the bulb ; and set them in a cellar, or any other dark, cool situation. When the glasses are moderately filled with roots, which will be the case in the course of three or four weeks, remove to where the plants will receive moderate light ; and as soon as the leaves assume a healthy green colour, place the plants in the lightest possible situation, and where they can have abundance of fresh air. A close, heated atmosphere is very unfavourable to the development of handsome spikes of bloom. When in actual growth, keep them as near the glass as convenient, and turn them occasionally to prevent long, weakly, ill-shaped stems ; the water should not be changed so long as it remains fresh ; merely add a little as may be required to replace what is taken up by the roots or removed by evaporation ; in short, the less Hyacinths are handled the better. Should the water become offensive, however, not only is a change necessary, but all superfluous or decaying matters that may have collected about the base of the bulbs or roots must also be removed. In all instances rain water must be employed, and at the same temperature as that already in the glasses. As an artificial stimulant, we know of nothing better than to dissolve, in a quart of rain water, an ounce of guano, and to pour one teaspoonful of that into each glass once a fortnight after the flowers begin to appear. Tye's glasses of new and elegant design, with supports, are the most perfect yet introduced. Bulbs grown in glasses, if to be of any use the following season, should, as soon as the beauty of the flower is over, be removed to a bed of rich soil, in a frame, or very sheltered situation, and be carefully planted and properly tended until the leaves die off. If bright sunshine or frost occur before they become accustomed to their fresh situation, afford them the protection of a slight covering. If well cared for till ripe, they will be worth planting in open borders the following season ; but, with the best management, will not bloom so finely as imported bulbs.

Culture of the Hyacinth in Pots.—For this purpose, the Hyacinth is remarkably well adapted ; and, with the assistance of a garden

frame, with some stable manure, or tan, to furnish a gentle heat, it may be had in flower at Christmas; and with a good stock of bulbs, the display may be kept up till April or May. For early flowering, the bulbs should be planted early in September; those to flower in spring should be planted during the months of October, November, and December. The best pots are 5-inch (forty-eights) for one bulb, and 6 or 7-inch (thirty-twos or twenty-fours) for three bulbs. It may be well to add, that three roots grown together in one pot produce a much finer effect than single bulbs. If smaller pots than the above be used, greater care will be necessary in watering. The soil used for potting should be as rich as possible; such as one half fresh loam, cut from a pasture, with the turf decayed in it, and well decomposed cow or horse manure, with a small portion of clean sand, well intermixed. If, however, this cannot be obtained, then the lightest and richest at command must be employed instead, mixing freely with it well-decayed cow dung. Fill the pots lightly with the prepared compost, and place the bulb upon the surface, slightly pressing it into the soil. After giving the newly-planted bulbs a liberal watering, set the pots out of doors on a place where perfect drainage is secured, and cover them with about a foot of old tan, ashes, saw-dust, leaf-soil, or any other light material. After remaining there for a month or five weeks, the bulbs will be sufficiently rooted to render it safe to remove them to a gentle bottom heat of about 55° , introducing the pots, in numbers proportionate to the demand, at intervals of about a fortnight; a succession of flowers will then be secured, until those in the open air come into bloom. We would caution the amateur, when forcing the Hyacinth, to be careful that the roots are not allowed to penetrate the fermented material. Persons possessing no better accommodation than a room window, will, with ordinary management, be able to grow and flower the Hyacinth as well, if not to have it in bloom as early, as those who can command a gentle heat. We need hardly observe, that plants growing during the dark days of winter, should be placed near the glass, and be freely supplied with air, when this can be given with safety; and those grown in windows will draw towards the light, unless the pots are frequently turned. A sitting-room window forms a suitable situation for Hyacinths while in bloom, and their beauty will be longer in fading here than in most situations: in no instance should they be removed from a close atmosphere, and suddenly exposed in a sitting-room window, until they have been previously hardened in a suitable temperature to withstand cold drying currents. We warn the inexperienced to guard against this common error, and to avoid subjecting the plants to sudden changes at any period of their growth.

Culture of the Hyacinth in the Flower Border or Bed.—Much has been written respecting the culture of this lovely plant, the greater portion of which has, unfortunately, been calculated to deter persons dependent upon such sources of information, from attempting its growth. It is usual with writers on the culture of the Hyacinth, to state, that to grow it successfully, a very rich soil is absolutely necessary; but we know, from experience, that any well-drained garden soil is easily rendered suitable for the growth of the Hyacinth. If the

soil is of a strong adhesive nature, add two inches of sharp sand, and as much well-decayed manure; then dig the soil two feet deep with a steel fork, taking care to nicely mix the sand and manure with the soil as the work proceeds. Friable loamy soils will require merely a liberal dressing of manure, and deep digging; and it will be found that the Hyacinth will produce equally fine spikes of blossom grown in soil prepared thus, as when planted in more expensive compost. The season for planting Hyacinths in beds, in the open air, is from September onwards. Select a dry day for putting in the bulbs; and if the same can be chosen for the preparation of the soil, it will be in much better condition for the growth of the plant than if worked when wet. Plant in lines, nine inches by twelve inches apart, which will afford space between the plants, when up, to work a hoe, for the destruction of weeds, and keeping the surface friable, to prevent the escape of moisture in dry weather. The crowns of the bulbs should be four inches under the surface of the soil; and, lest a severe winter should occur, it is well to cover the bed with a few inches of old tan, litter, or any light substance, to exclude frost. This should be removed, however, when the plants begin to grow through it.

CRYSTAL PALACE HORTICULTURAL EXHIBITION.

SEPT. 7 and 8.—This, the autumn show of this Company, was chiefly remarkable for cut flowers, fruit, and fine foliated plants. The collections of mixed plants, as a matter of course, had a weedy look about them, though containing many fine specimens of good cultivation. But the past season has told its tale with this kind of plants. Of fruit a very large quantity was staged, but, with some exceptions, there was nothing calling for special remark. Grapes, taken as a whole, were decidedly inferior; the exceptions were, Mr. Drewett's fine Cannon Hall and Mr. Frost's Muscats, the Golden Hamburgs, shown by Mr. Scott (which were very fine), and the Black Hamburg and Prince Grapes shown by Messrs. Hill and Frost. The Pine Apple class only produced very moderate fruit. Some fine dishes of Peaches were evidently orchard-house productions. Late Admirable, Bellegarde, and Walburton Admirable may be classed as the finest dishes. We also noticed some good Grosse Mignonne and Royal George Peaches, wall fruit, and also some admirable Murray and Elrue Nectarines. The class for Plums produced no fruit very remarkable; but then the season has made Plums a scarce article in most gardens. Some nice dishes of Jefferson, Reine Claude de Bavay, and Washington were among the collections. Pears were numerous and good; the kitchen Apples generally, and the collection of dessert kinds shown by Mr. Whiting and Mr. Mortimore were excellent. Pears, fit for the table, consisted of Williams and Beurré d'Amanlis, the latter a good useful fruit at this season. There was a row of Melons, containing eighty or more fruits; the greater part, we were told, worthless, but the few selected for prizes good. Fruit trees in pots were scarce; some fruit-bearing Vines in pots

were very inferior. Orange trees in fruit very good. Morello and Carnation Cherries, fine, and a few dishes of good Figs, conclude the fruit.

Of new plants, Messrs. Veitch had a batch of seedling Cattleyas, very interesting productions, but hardly so bright in colour as some of the species. This enterprising firm also exhibited the new hardy shrub *Chamebatia foliolosa*, whose evergreen foliage is very beautiful. *Pothos argyrea* and *Pteris argyrea*, the latter a variegated Fern, and both good additions to variegated plants; and two *Selaginellas*, charming plants, from Borneo.

Ferns were generally good as well as plentiful. Exotic kinds were contributed by Messrs. Baillie, Lavey, Summers, and Oubridge; and in the nurserymen's class, by Messrs. Bunney, Woolley, Milne, Arnott & Co., and Hally. Among these were beautiful plants of different sorts of *Gleichenia*, *Cyathea medullaris* and *microlepis*, *Dicksonia antarctica*, *Nephrolepis davalloides*, some good *Cheilanthes*, *Aspleniums*, *Davallias*, *Adiantums*, *Gymnogrammas*, *Ctenopteris fabiana*, *Hypolepis Dicksonioides*, and others. British Ferns came from Messrs. Sim, Lavey, and Baillie. Among them were some charming varieties but little different from what has been recorded by us in former reports. The remark just made also applies to Lycopods, among which there were, however, several splendidly grown specimens, measuring not less than 3 feet across. The best came from Mr. Higgs, gardener to Mrs. Barchard.

Of new Hybrid *Achimenes* Messrs. Milne, Arnott & Co. sent an interesting collection, chiefly with rosy pink coloured flowers charmingly spotted with brilliant crimson.

Fuchsias were contributed in excellent condition by several growers. The best came from Messrs. Cannell, Elliott, Oubridge, and Rhodes. They were for the most part in the form of pyramids and beautifully covered with bloom.

Scarlet *Geraniums* were exhibited in considerable numbers from the neighbourhood of Sydenham, Croydon, Dulwich, and Hampstead. Among them there was nothing new. They consisted of Brilliant, Punch, Tom Thumb, Cerise Unique, Trentham Hybrid, Lady Middleton, Kingsbury Pet, and one or two other pink and salmon sorts.

Of Balsams there was an extensive display. They were generally well grown, with flowers large and double, and of all shades of colour. The best came from Mr. Brown, of Dulwich.

Of Japan Lilies there was a noble bank; but owing to want of variety among them they made but little display. They were, however, all fine plants, and tolerably well matched as to height.

Some handsome varieties of *Gladioli* and *Phloxes* came from Mr. Standish, of Bagshot.

Dahlias, both from amateurs and professional growers, were excellent. The first stands in each class contained blooms above the average in size and general merit. Fancies were also good and in great variety. Of 50 blooms the best came from Mr. Turner, Royal Nursery, Slough. They consisted of Robert Bruce, Seedling, Flower of the Day, Pioneer, Commander, Sir Joseph Paxton, Sidney Herbert, Midnight, Mrs. Church, The Flirt, Constancy, Seedling, Deutsche, Duchess of Kent,

Mentor, Chairman, Triomphe de Peep, three very pretty seedlings, Pre-eminent, Hon. Mrs. Trotter, Emperor, Col. Wyndham, Enchantress, Seedling, Miss Watts, Bravo, Goldfinder, Mr. Charles Waters, Seedling, Disraeli, Lady Popham, King, Standard Bearer, Cherub, Adam Bede, Yellow Beauty, Purple Standard, Mrs. H. Vyse, Lollipop, Lord Palmerston, Lady Franklin, Miss Pressley, Touchstone. Seedling, Lord Eversley, Seedling, Lady Taunton, George Elliott. Mr. Kimberley, of Stoke, Coventry, and Mr. J. Keynes, of Salisbury, also showed in this class. Of 24 Dahlias, the best came from the Rev. C. Fellowes, of Shottesham, near Norwich. They consisted of Wallace, Pre-eminent, Miss Caroline, Touchstone, Miss Watts, Satirist, Lord Palmerston, Rosebud, Pandora, Chairman, Duchess of Marlborough, Fanny Keynes, Deutsche Wurde. Mentor, Golden Drop, Robert Bruce, Standard Bearer, Lady Franklin, Goldfinder, Emperor, Dr. Gully, Lady Popham, Mr. Critchett, Purple Standard. From Mr. W. Dodds, of Salisbury, came Duke of Roxburgh, Pandora, Chairman, Lord Bath, Royal Lilac, Lord Clyde, Golden Drop, Cherub, Dr. Simpson, Mrs. Church, Emperor, Sidney Herbert, King, Lord Derby, Hon. Mrs. Trotter, Sir H. Havelock, Venus, Miss Pressley, Lord Palmerston, Seedling, Sir G. Douglas, Touchstone, Lady Franklin, Mr. Critchett.

In the class of Fancy Dahlias the best came from Mr. C. Turner, of Slough. The sorts were Ethel, Tiger, Elizabeth, Pluto, Butterfly, Madame Alboni, Comus, Jessie, Flirt, Duchesse de Brabant, Queen Mab, Charles Perry. From the Rev. Charles Fellowes came Souter Johnny, Madame Alboni, Charles Perry, Triomphe de Roubaix, the Flirt, Countess of Bective, Jupiter, Oliver Twist, Jessie, Conqueror, Mark Antony, Elizabeth. Mr. J. Keynes and others also showed in this class.

Of Seedling Dahlias there was a large collection, and in most instances several blooms of each variety were shown. The judges selected 11 kinds for certificates, namely, George Elliott, light purple, of fine build; Mrs. Howard Vyse, white, with rosy purple edge or tip; Beauty, pale cream, shaded; Queen Mab, a fancy, scarlet and white; Pluto, a dark fancy, of great depth and fine form; and Harlequin, a large striped fancy. These were shown by Mr. C. Turner. Mr. Keynes had Wm. Dodds, a deep yellow of good shape; Lady Douglass Pennant, primrose; Wellesley Piggot, fine white; Neville Keynes, pale yellow, edged with purple, fine; and Sir Geo. Douglass, yellow, deeply tipped with red, very showy. There were some promising kinds, however, to which no awards were made, viz., Miss Boyce, white, tipped with crimson purple; Purple Standard, deep, finely formed purple; Mr. Boshel, salmon; and Lady Taunton, white edged with crimson.

Among cut flowers, in addition to Dahlias, were Roses, Hollyhocks, Verbenas, and Asters. Of the latter, both German and French, there were some fine blooms.

Among vegetables, Onions especially were large and fine; they were chiefly White Lisbon and Spanish. Cabbages were not very remarkable. Of Savoy's there were good specimens of Early Ulm, and we noticed some very fine large Musselburgh Flag Leek. Among Potatoes was a large fine-looking kind called Stafford Hall. This is reported to be one of the best Potatoes grown. Also very fine Lapstones.

ROSA DEVONIENSIS.

YOUR correspondent, "D.," has fallen into an error, when he states, as he does at page 257 of your September number, that this Rose was raised in France, and introduced into this country by Messrs. Lucombe, Pince, and Co.

Now, I will endeavour to give your readers some little account of this Rose, so far as I am concerned in the matter, and in doing this I will be as brief as I possibly can. In the year 1840, I was in the employment of Messrs. Lucombe, Pince, and Co., in the plant department of their nursery. In August of that year, that firm was solicited to send some plants to a horticultural show at Devonport, which was accordingly done. Mr. Nott, the foreman, took me with him as an assistant. Devonport being about 40 miles and upwards from Exeter, we started with a van-load of plants on Wednesday afternoon, and arrived in Devonport on the Thursday. After the plants were put in their proper places, two or three hours were given me to see Devonport; and as I had never before seen a man-of-war, and a great many other things connected with a Royal arsenal, I very much enjoyed myself. A young man, of the name of Short, from Messrs. Pontey's of Plymouth, was my companion. I returned to the Town Hall (in which the exhibition was held) at the time appointed for me to be there. I had not been there long, before an elderly gentleman came to Mr. Nott, with a Rose in his hand, and asked him his opinion of it, which was given favourably, and I was immediately despatched to see the plant from which the flower was cut. As I write from memory, I cannot recollect the name of the place, but I rather think it was Stoke Dammerell; be that as it may, I had a good long walk. Mr. Foster, for that was the gentleman's name, sent a lad with me, to show me the place; I believe it was his own son; and in a small garden, and growing by the side of a wall, I saw the original seedling plant. According to my instructions, I noted down in a pocket book the number of branches and the length of them, and cut some fresh flowers, to take to Exeter. On my arriving at the place of exhibition, we repacked our plants, and started again for Exeter, where we arrived on Friday. The first person I met in the nursery was Mr. Pince. I presented the flowers to him, and never shall I forget the smile that came over him, when he exclaimed—"Willcocks, I never saw such a beautiful Rose before; what's the history of it?" That I left Mr. Nott to explain. Mr. Pince immediately put himself in communication with Mr. Foster, and, the first letter that was written was read by Mr. Pince to Mr. Nott and me, and I then went and posted it. The correspondence was of short duration, for, in a few days, I provided a hamper, and all things requisite for packing; and saw Mr. Nott start by the coach for Devonport, to bring away the seedling Rose, from the place that gave it birth. The next day, Mr. Nott returned with his darling child, as he called it. The plant was unpacked by Mr. Pince, Mr. Nott, and myself—Mr. Pince counting the branches, to see if they tallied with my statement, and

they were found correct. The plant was cut up for cuttings, and I had the pleasure of putting in the first of them in the Exeter nursery. I, however, left a few days after that, to go as foreman to Mr. Dunsford, then gardener to Baron Dimsdale, in Hertfordshire, and I heard no more of the Rose, till I saw by the papers that it had been exhibited at one of the horticultural meetings in Regent Street, under the name of *Devoniensis*.

Now, as regards the origin of this Rose, I was given to understand at the time, that as Mr. Foster, who was a retired naval officer, was passing through the market one day, he became enamoured with a Rose in a small pot, and carried it home, and put it in his window. After the flower had dropped, a seed pod succeeded it, which ripened in the window, and for curiosity it was sown under the window, and that was the seedling plant which I saw, for it was growing under a window. As it is now 19 years since this occurred, and as I have stated before I write from memory alone, should there be any inaccuracies; and if this should meet the eye of Mr. Pince, no doubt that gentleman will most readily put me right. This, therefore, I trust will prove to the readers of the *Florist* that *Rosa Devoniensis* is a true English Rose.

WILLIAM RICHARD WILLCOCKS,

Gardener to John Murray Aynsley, Esq., Underdown,
Ledbury, Herefordshire.

CADLANDS, THE SEAT OF MR. DRUMMOND.

SOME account of what the difference of climate can do for plants may perhaps not be uninteresting to your readers. Cadlands is pleasantly situate on one of the many undulating hills on the west shore of Southampton Bay. Entering by a lodge from the New Forest, some two miles from the house, the drive leads through plantations of Firs, Holly, evergreen Oak, and some fine old trees in the open places, and terminates at the south side of the house, which is the chief entrance; from the portico is a fine view of the Isle of Wight, through a vista of trees, commencing with large Cedars of Lebanon on each side.

The house is a large plain structure of white brick, with Portland stone corners; and thence, entering from this front, we come to the east and north, the latter being the main or principal flower garden front. At the east side the house is surrounded by broad gravel walks, and from this, all round the two fronts, are beautiful views across the bay, Southampton, in the distance, looking bright with the setting sun, and the bay between covered with numerous steamers, yachts, and smaller craft of all descriptions, their white sails glittering in the sun, and their movements adding life and interest to the view; further up the shore is Netley Abbey, nestling among the trees, the Royal Military Hospital, and the shore as far as the eye can reach, is studded with fine villas and trees. Every care has evidently been bestowed upon

the cutting and keeping of these views, as the trees below rise sufficiently high to render this necessary. The lawn is extensive, and almost completely covered in both fronts with beds; and lower down the lawn are various designs with rustic baskets and rustic edgings to the beds, and such other variations as this easy style admits of; among others a small Rosery, where we found mildew quite covering the plants: Mr. Arnott, the gardener, told us it was occasioned by hot dry weather, and that the common kinds of Roses were always the greatest sufferers.

The beds near the house are large and mostly filled with Geraniums, with edgings, as generally used; but no person who has not seen Geraniums round here, or at the Isle of Wight, can credit the difference: they are one intense blaze of colour, with scarcely a leaf to be seen. In the lower and mixed beds we saw fine Myrtle bushes, Coronilla, Plumbago, Veronica Lindleyana, Hydrangea—fine bushes on the Grass, which take the form of shrubs, and other varieties, standing the winter and blooming abundantly—the old sweet-scented Lemon Aloysia, and several others also winter here. Among the mixture in these beds we saw quantities of the old-fashioned herbaceous plants, as the Golden Rod, tall Phloxes, &c., making quite a show; in some of the beds round the baskets the dwarf French Asters, not more than six inches in height, made good compact beds. On the lawn are some fine Cedars, Platanus, &c., one of the former terminating the broad front walk where it branches into two, one leading to the forest and the other to the park in front of the lawn, which suddenly terminates here on the west side, at the top of a deep dell. The sudden contrast from gay and dressy to Nature's wildest forms of heath, with Furze up the opposite hill mixed with stunted Firs, &c., is quite startling. In returning to the house, on the right hand is a good sized garden in front of a temple, laid out in stone, with a large fountain in the centre; the beds full and fine. A back border here was filled with conservatory plants in pots, and mossed to the level of the pots—a good plan.

On the west side of the house there is a conservatory of large dimensions in communication with the rooms of the house. A fine plant of *Mandevilla suaveolens* in full bloom completely scented the air with its beautiful fragrance. Some large plants of the old *Brugmansia suaveolens* also aided; this is a fine plant for large conservatories, of which we will have something to say another day; Fuchsias, trained mushroom shape, looked novel and well. This house is principally for Orange trees, of which there is a fine lot of clean stemmed young trees, set at present round the house, and covered with fruit; Mr. Arnott told us they were used for dessert and greatly prized; we tasted one, and found little difference, except a little milder in flavour from those imported.

The kitchen garden is some distance from the house on a slope to the south, nearer the shore, and divided into sections, with good high walls. At the entrance are two large fish ponds, with a walk all round. A fine border of shrubs, with Apple, Pear, Medlar and other standard fruit trees, for a backing, divides this from the park. In this border are fine trees of the *Magnolia grandiflora*, 25 feet high, and most of them, as is the habit of this plant, with a few flowers in different stages; these, from the flower, I thought were the Exmouth

variety ; some of the stems at the ground were like a good aged forest tree. At the top of this pond is a fine specimen of the deciduous Cypress, 60 feet high and 12 feet round the stem above a seat. In the houses we found plenty of Grapes in different stages. The first Vinery Mr. Arnott had taken a leaf out of the hints of the *Gardeners' Chronicle* in spring, and lifted, putting a bed of heating material over the roots of the new border ; only one Vine, a Muscat, had shown any signs of flagging.

In a small stove we found, planted out and covered with bloom, Allamanda, Stephanotis, and other stove plants in good condition. Apricots had been nearly a failure ; Peaches and Nectarines plentiful ; a fair sprinkling of Pears and Plums ; and fine crops of Apples. Figs grow and ripen their fruit as standards anywhere in the garden. We also saw Raspberries in great quantities ; Mr. Arnott said they keep bearing until frost comes.

In most of the cottage gardens we saw Myrtle bushes. In the village of Hythe, close by, one or two were completely covered with the broad-leaved variety, forming low hedges in front similar to the ever-green Privet, even in exposed situations open to the sea.

BRIGHTON HORTICULTURAL SOCIETY.

THIS, the sixth annual autumn exhibition, was held as usual at the Royal Pavilion, on the 14th and 15th ult. The arrangement of the productions was exceedingly good, and reflects the highest credit on Mr. Spary, the superintendent. To speak of the effect produced, we must remind our readers how well adapted is the entire suite of rooms at the Royal Pavilion for an exhibition of this description. In the banqueting room, and both drawing rooms, the plants are reflected and re-reflected by the large pier glasses, whilst in the music room, the effect produced by the pier glass at the north side of the room was magnificent.

Under the glass was a large platform of several tiers ; at the top were tall Fuchsias, all of superb growth ; the centre one a specimen (Surprise) by Mr. Kemsley, gardener to C. Catt, Esq., Brighton, was more than 10 feet in height, beautifully grown and in magnificent bloom. Immediately under these were the stove and greenhouse plants in the county division, all of which were beautiful specimens.

To give a proper idea of this excellent show, we will accompany the visitor through the rooms devoted to the exhibition.

In the entrance hall, on the right, was a valuable collection of tropical plants by Mr. H. Smythe, gardener to the Rev. T. R. Rooper, Wick, including some interesting productions. On the left was a magnificent collection of variegated-leaved plants by Mr. J. Miles, gardener to C. S. Hamington, Esq., Hurst, including two species of Canna or Indian Shot, *Croton angustifolium*, *Dioscorea discolor*, *Solanum purpureum*, and *Dracaena ferrea*, which were highly attractive.

On entering the banqueting room was a grand display of stove and greenhouse plants on raised platforms. Those shown by Mr. J. Miles, gardener to C. S. Hannington, Esq., took the first prize. Amongst them were *Allamanda Schottii*, with its large yellow blossoms, *Rondeletia speciosa major*, with beautiful corymbs of scarlet flowers, *Meyenia erecta*, with dark green foliage, deep blue purple blossoms with yellow throat, and *Clerodendron fallax*.

The variegated-leaved plants, a most attractive feature in this room, were placed on platforms at each end. To convey a proper idea of the lovely foliage of these favourites would be difficult. Each collection had excellent specimens, and all were greatly and deservedly admired. At the window was a magnificent specimen of *Begonia fuchsoides*. It was quite six feet high, and one mass of bloom. Mr. C. Green, gardener to Wm. Borrer, Esq., Henfield, had an exceedingly beautiful specimen of *Selaginella Martensii*. This beautiful moss-like plant was much admired, not only for its lovely green, imbricated, leafy branching stems, but also for its immense size, for it must have been nearly eight feet in circumference. Mr. McKenzie, Bristol Nurseries, presented a beautiful specimen of *Phænocoma proliferum*, and Mr. Hudson exhibited a fine plant of *Solanum atropurpureum*. Turning from these to the centre platform, the display was most exquisite, for there were lovely *Achimenes*, *Gloxinias*, cut flowers, *Verbenas*, and *Asters*. All the *Asters* were good, and more beautiful varieties or finer specimens could scarcely be exhibited. We cannot leave this platform without giving a passing notice to the exquisite collection of stove and greenhouse cut flowers, exhibited by Mr. Cameron, Goodwood, and Mr. Hudson, Horsted. Passing from the banqueting room into the yellow drawing room, the visitor was struck by the exhibition of *Dahlias*, arranged on a double tier of platforms throughout the whole length of the room. Those shown by Mr. Turner, Slough, were exceedingly large, and in the greatest perfection; so were those by Mr. J. Keynes, Salisbury; very beautiful also were the fancy varieties, particularly those shown by Mr. J. Keynes, and Mr. C. J. Perry, Birmingham. Mr. Kimberley, Stoke Nursery, near Coventry, and Mr. Legge, of Edmonton, had also splendid collections; indeed, so beautiful was the exhibition of *Dahlias*, that the room was crowded with admirers throughout both days. The centre of attraction, however, was the railway cup. This cup is given for the best 24 dissimilar *Dahlia* blooms, and was obtained by Mr. Dodds, gardener to Colonel Baker, Salisbury. The following seedlings were shown in good condition, viz., *Conqueror*, *Flower of the Day*, *Pluto*, *Queen Mab*, *Sir George Douglass*, *Dr. Boshel*, *Delicata*, *Earl of Shaftesbury*, *Mrs. W. Piggott*, *J. Edwards*, *Neville Keynes*, *Wm. Dodds*, *Mrs. P. Baillache*, *Lady Douglass Pennant*, *Salamander*, *Leopard*, and the *Rev. J. Dix*. Of most of these descriptions have already appeared, and we were glad to see the good character formerly given them fully maintained on the present occasion. In the drawing room was a beautiful plant of *Cyanophyllum magnificum*, whose foliage is most lovely; it was admired by all. This beautiful gem was shown by Mr. J. Miles, gardener to C. S. Hannington, Esq.

On entering this room, the rich fragrance of the *Roses* first directed

attention to the immense collection displayed. It extended the whole length of the room in double tiers, with splendid grown Fuchsias at the back, except in the centre, which was occupied with some beautiful ornamental plants by Mr. G. Young, Dulwich. But as we are to speak of the Roses, we must in justice begin with Mr. Jas. Mitchell, Piltown Nurseries, Maresfield, who obtained the 1st prize for the best 36 varieties in three bunches, and an extra prize for an immense display of upwards of one hundred varieties. They were exceedingly beautiful and in the finest condition. Those shown by Messrs. Paul & Son, Cheshunt, Herts; Mr. Parsons, florist, Brighton; Mr. Knight, nurseryman, Hailsham; and Mr. Wm. Mitchell, Tower Nursery, Heathfield, were also exquisite productions. Amongst the most lovely were Hybrid Perpetuals: Auguste Mie, Cardinal Patrizzi, Comte de Nanteuil, Comtesse de Chabrillan, Evêque de Nîmes, General Jacqueminot, Gustave Coraux, Jacques Lafitte, Jules Margottin, La Reine, Lord Raglan, Louise Odier, Madame Domage, Madame Knorr, Madame Rivers, Madame Vidot, Mathurin Regnier, M. Montigny, Pauline Lansezeur, Prince Léon, Souvenir de la Reine d'Angleterre, Triomphe de l'Exposition, Victor Trouillard, William Griffiths. Tea-scented: Auguste Vacher, Comte de Paris, Gloire de Dijon, Louise de Savoie, Madame de Vitry, Souvenir de Elise. Noisettes: Cloth of Gold, Lamarque, Miss Gray, Narcisse, Solfaterre, and Triomphe de Rennes.

On entering the Music-room the display was truly excellent. We have in the earlier part of this notice mentioned the beautiful effect of the Fuchsias, and the magnificent stove and greenhouse plants in front of the large pier glass; equally effective was the arrangement on the platform under the organ, which was devoted principally to specimens of Begonias, Gloxinias, and Achimenes, at the foot of which were cut flowers. Most of the plants in this room were in the county division. Ere we leave for the lawn, we cannot pass unnoticed the Cotton Plant, or *Gossypium herbaceum*, shown by Mr. W. Martin, Shermanbury. It was in every stage from the bud to the ripe fruit, passing from the blossom and the green fruit to the fruit just bursting, showing the cotton.

The lawn was fitted up with marquees. At the north end was one in which were Scarlet Geraniums, of which there was a very fine display. The prizes offered for designs for flower-gardens produced some five or six model gardens, some of them on a tolerably large scale. That to which the first prize was awarded consisted of beds on gravel arranged in a parallelogram. The second, in addition to the usual flower-garden, had in connection with it miniature lakes, bridges, fountains, and rockery work. The third was what is termed a sunk panel, octagonal in shape, with Grassy sides, and having flower-beds on gravel in the bottom, which was reached by flights of stone steps in the banks. About the rest there was nothing worthy of remark. Hung up against the walls we noticed a tastefully executed plan of a terrace-garden from Mr. Sanders, of Tedworth, who had also a perspective view of the interior of the fine conservatory at that place.

The weather was cold, but, with the exception of one or two slight showers, fine. The assembly on both days was large. On Wednesday,

the 14th, 2570 were admitted, exclusive of the exhibitors and officials, and on the second day nearly 5000. The shillings taken for admission were 3893.

Fruit, both from the county of Sussex and from other quarters, was good. Pine-apples were however scarce; the best was a Queen, weighing 4 lbs., finely swelled and ripened, from Mr. Cameron, of Goodwood. Of Grapes there was a fair display. A beautiful basket of 12 lbs. of Black Hamburgh came from Messrs. Balchin & Nell, and Messrs. Lucas & Parsons also showed fine fruit of the same variety. Mr. Gilbert produced three beautiful bunches of Black Hamburgh, and the same kind of Grape was also shown in good condition by Mr. Fillery. The best Muscats were furnished by Mr. Gilbert, and we also noted some fair fruit of this description from others. On the whole, however, the best were very inferior to those shown the other day at the Crystal Palace by Messrs. Drewett and Frost. Of Royal Muscadine good bunches came from Mr. Fowler, and of Barbarossa there were three good bunches.

Peaches were good for the season. Among them were fair examples of Kirke's and Walburton Admirable, Barrington, and Noblesse. Of the first-named sort beautiful specimens were shown by Messrs. Lambert and Daniels. Nectarines were scarce; the best was Pitunaston Orange.

Of Plums, good fruit of Coe's Golden Drop came from Mr. Lambert, and we also noticed Green-gage, Jefferson, and Magnum Bonum in fine condition from other growers.

Cherries were wholly confined to the Morello, of which several fine dishes were shown.

Figs, for which Brighton and its neighbourhood are celebrated, were but scantily shown; but what were produced were really fine. Unusually large and fine fruit of the Brown Turkey came from Messrs. Dennis & Sharpe.

Melons were plentiful. Among them the best were Golden Perfection, Bromham Hall, and Beechwood.

Of Miscellaneous collections of fruit there were four. They came from Messrs. Kaile, Young, Burnett, and Gadd & Son. Mr. Kaile sent Coe's Golden Drop Plum, Walburton Admirable and Barrington Peaches, Black Hamburgh and Muscat Grapes, the latter unripe; Imperial Scarlet Melon, a Queen Pine Apple, and Williams's Bon Chrétien Pears. From Mr. Young came Late Admirable Peaches, Coe's Golden Drop Plum, Muscat and Black Hamburgh Grapes, a Queen Pine-apple, Brown Ishcia Figs, Golden Perfection Melon, and Gansell's Bergamot Pear. In the other collections were Black Jamaica and Queen Pine-apples, Muscat and Black Hamburgh Grapes, Late Admirable Peaches, Golden Drop and Beechwood Melons, Morello Cherries, Blue Impératrice Plums, Williams's Bon Chrétien Pears, and Brown Turkey Figs.

Of out-door fruit considerably the best were some Ribston Pippin Apples from Mr. Cameron, of Goodwood. These were unusually large and fine. Other fruit of this variety, with a beautiful warm yellow ground colour suffused with red, were shown by Mr. Starr, of Brighton. Among kitchen Apples the best was a dish of Knight's Grange, a large

and fine-looking variety, from Mr. Cameron. Others consisted principally of Alfriston, Hawthornden, and Emperor Alexander.

Pears were chiefly Williams's Bon Chrétien, of which we observed some fine fruit. Marie Louise was likewise shown in good condition, as was also Louise Bonne of Jersey.

Red and white Currants were furnished in excellent condition by Messrs. Lambert and Evans, and we also noticed a few Warrington Gooseberries. From Mr. Cameron came a dish of Guavas.

REVIEW.

The Peach and Nectarine. By the late G. M'EWEN. Edited by J. COX, F.H.S., Redleaf. 8vo. Groombridge. pp. 52.

THIS is the second, and unfortunately the last, of the late Mr. M'Ewen's projected series of works on the culture of fruits, that on the Strawberry being the first. Of its value to the cultivator of the two kinds of fruits on which it treats, the two names recorded at the head of this notice are a sufficient guarantee. To the M.S. left by Mr. M'Ewen at his death, Mr. Cox has made numerous additions, and altogether the work is one which we can heartily recommend.

The following extract will give some idea of the kind of useful information it contains, and at the same time will prove, we hope, acceptable to our readers:—

“ PEACHES.—EARLY SORTS.

“1. *Acton Scott*.—This is a very excellent early sort, and the best adapted of them for house culture.

“2.—*Early Anne*.—A very good early sort for the walls, chiefly valuable for its ripening about ten days before the earliest of the mid-season Peaches.

“3.—*Red Nutmeg*.—This and also the white variety are both of very indifferent flavour, and are only valuable as being the earliest, generally ripening early in August. These as well as the Early Anne, will most probably be superseded by the Early York, a recently introduced American Peach. (See Mr. Rivers' List.)

“ MIDSEASON PEACHES.

“4. *Barrington*.—A very excellent Peach, not subject to mildew, and an abundant bearer.

“5. *Bellegarde*.—A first-rate Peach, either for the open wall or for house culture. The Violette Hative and the Galande are synonyms.

“6. *Malla*.—A very estimable sort, not so extensively cultivated as it deserves. It bears carriage well and is a good keeper.

“7. *Grosse Mignonne*.—One of the very best sorts grown: forces well, is not subject to mildew, and its excellence is sufficiently attested by its having, in the catalogue of the Horticultural Society, no less than thirty-nine synonyms.

“8. *Noblesse*.—This fine old sort is too well known generally to need any panegyric. It is well adapted either for forcing or wall culture.

"9. *Pourprée Hative*.—This is an excellent Peach, of large size, and good quality.

"10. *Royal Charlotte*.—A very fine melting Peach, an excellent bearer, forces well, but, like the following, is subject to mildew.

"11. *Royal George*.—The flavour of this variety is one of the most exquisite of any sort grown; it is much cultivated, and deservedly so, being very handsome when full grown.

"LATE SORTS.

"12. *Late Admirable*.—This is one of the very best late sorts in cultivation, and should be classed A 1, in a selection. It is well adapted for house culture, where it ripens well, after the earlier sorts; on the wall it is indispensable.

"13. *Late Catharine*.—This is a good old late clingstone, of a large size, and very handsome appearance; in favourable autumns it is full of a rich sugary juice; keeps a long time. A very useful sort.

"14. *Old Newington*.—A handsome clingstone Peach, of tolerable quality; may be planted in a large collection, but the two preceding varieties will answer every useful purpose, in a small collection.

"15. *Walburton Admirable*.—This is a variety supposed to be a seedling from Noblesse, which it much resembles; it ripens about the same time as the last, and is of great excellence.

"16. *Salway Peach*.—This variety, which was raised in the garden of Colonel Salway, from a stone brought from Italy, is one of the latest varieties known. It has received a very high character from Mr. Ingram, of the Royal Gardens at Frogmore; also from the British Pomological Society, and the Fruit Committee of the Horticultural Society; and Mr. Turner, of Slough, informs me, that it in no ways loses its high character on a further acquaintance with its many estimable properties, but that it may be very confidently recommended as an acquisition of great worth.

"NECTARINE.—EARLY SORTS.

"1. *Fairchild's Early*.—A small red Nectarine, of medium quality, only valuable for its earliness, for which purpose, when only one is required, the next is preferable.

"2. *Hunt's Tawny*.—This is a medium sized early Nectarine, of first-rate quality, and well worthy of cultivation.

"MIDSEASON DITTO.

"3. *Boston*.—A fine handsome Nectarine, good for forcing, but requiring the best situation on a south wall, out of doors.

"4. *Elruge*.—One of the best in cultivation, good for either walls or forcing, a great bearer, and a general favourite.

"5. *Old Newington*.—This is also a good bearer, of a fine red colour, and first-rate both in size and quality.

"6. *Early Newington*.—Rather earlier and deeper in colour than the last, and by many preferred to it, but both are good.

"7. *Red Roman*.—An old sort, good quality, and an abundant bearer.

"8. *Brugnon*.—A very good second early Nectarine, requires to be eaten soon after being gathered, as it soon loses flavour.

"9. *Violette Hative*.—One of first-rate excellence, both for wall and forcing-house; a good bearer, and ranks high in point of flavour and size.

"10. *Pitmaston Orange*.—The best of the yellow-fleshed varieties, good bearer, and first-rate in flavour, size, and quality.

"LATE DITTO.

"11. *Vermash*.—A fine late Nectarine, of a greenish colour, inclined to red on the side next the sun. Medium size, good quality.

"12. *Peterborough*.—Similar to the last, but later.

"13. *Stanwick*.—There is no doubt but this variety, when its cultivation is better understood, will prove to be one of the finest late varieties; the flavour, as described by Dr. Lindley, is 'as far beyond all other Nectarines as the Green-gage Plum is beyond all other Plums.' Mr. M'Ewen observes, in a note, 'The Stanwick suits well to be grown in a house with such sorts as the Late and Walburton Admirable, because a dish of Nectarines with late Peaches is rare, and the treatment agrees.'"

The work is well printed and neatly got up. It opens with a good representation of the Late Admirable Peach, by Andrews, and wherever the subject required it, woodcuts have been added by way of illustration.

BRITISH POMOLOGICAL SOCIETY.

SEPT. 1.—Mr. Hogg in the chair. For a collection of fruit, comprising not less than two dishes, to be exhibited by the grower, a prize was awarded to Mr. Whiting, of the Deepdene, for a collection comprising Trebbiana and Raisin de Calabre Grapes; Bellegarde and Noblesse Peaches; Violet Hative and Elruge Nectarines; Belgian Purple, Cooper's Large Red, and Imperial Diadem Plums. A second premium was awarded to Mr. Newton, of East Lodge, Enfield Chase, for a collection containing Black Hamburgh and Black Morocco Grapes; Grosse Mignonne Peaches; Violette Hative Nectarine; Williams's Bon Chrétien Pears; Kirke's and Jefferson Plums; Red Quarrenden and Kerry Pippin Apples; and Red Dutch Currants.

Mr. Rivers, of Sawbridgeworth, again brought the Seedling Peach he exhibited last year, and which he at present distinguishes as No. 6; it was raised from the largest of all the Pavies—namely, the Pavie de Pompone, a late clingstone variety. The flowers (large) and leaves (with small round glands) are like the parent, but the flesh is red near the stone, from which it parts freely, and is melting and delicious; its season being intermediate between the Royal George series and the later October kinds. Mr. Rivers reported that it ripens about a fortnight after the Grosse Mignonne, a tree of which stood beside it in the same house. Last year it was pronounced promising, and at this examination it was considered to have sustained the favourable impression formed of it; Mr. Rivers, however, expressed his determination to give it a further trial, and bring it again before the Society. Mr. Rivers also brought a seedling Peach raised from the Pitmaston Orange Nectarine;

the fruit was very juicy, and possessed in a great degree the flavour of the parent.

On the subject of Peaches, Nectarines, and Apricots, Mr. Bye desired to call attention to an old but almost forgotten method by which he had retarded and protected the blossoms of the trees on walls for several years past. About the middle or end of January, he selected the longest of the untrimmed brushwood intended for Pea-sticks, such as Hazel or Elm; the thick end thereof being sharpened the same as if intended for Peas; he had them fixed in the ground in front of the trees, about eighteen inches from the bottom of the wall, and leaning against it at top; affording a partial shade to the trees, preventing the blossoms from expanding too early in spring, and remaining until the fruit begins to swell. Under such treatment the blossom is about three weeks later than if uncovered, and during and after flowering a slight protection is afforded; and by these means he had secured this year a fair average crop, while his neighbours had lost all.

Of Grapes, Mr. Whiting exhibited Trebbiana, a variety of the Syrian or Tokay section, not much known, but worthy of cultivation, as it produces a large, handsome, well-shouldered, and compact bunch, is moderately hardy, sets well, and keeps good without shrivelling or becoming spotted until March. The berry is of full medium size, and oval; colour pale amber; skin rather thick; flesh melting, very juicy, and sweet; seeds very few, frequently none.

CALENDAR FOR THE MONTH.

Auriculas.—These may be removed to a southern or western situation for the winter; the latter is preferable. Cleanse the frames and glass, that when necessary to cover the plants they may have the full benefit of the light. Continue to keep the soil moist through the month, and open the surface as often as it appears closed. Look well after insects.

Azaleas and Camellias.—These will now be housed. Pick off decayed leaves, and keep the plants rather dry and give plenty of air, that the wood may become thoroughly ripened, which will make the blooms finer next season.

Carnations and Picotees.—Potting for winter should now be completed. Never take the layers from the stools when in a wet state. Remove dead foliage, and grow them as hardy as possible.

Cinerarias.—This is the month for progression with this plant. We suppose that now there are plants in abundance from the early struck cuttings. Every encouragement should now be given to aid a free growth. Shift such of the early potted plants as are ready into a size larger pots, in a compost of equal parts turfy loam and well decomposed stable manure; leaf mould will answer the same purpose should this not be at hand. Keep them as near the glass as possible, and ventilate freely. As frosts may now be expected, it would not be advisable to expose them at night. Look well to mildew, and sulphur such as have it. A slight fumigating now and then with tobacco will be found the

best preventative against the green-fly, which is a great pest in the cultivation of this plant. Should compost not be prepared, it should be attended to forthwith. Give the final shifting to such as are required for winter flowering.

Conservatory.—From this time the conservatory will be used as a promenade, and probably as a working room for the ladies in bad weather; care should therefore be taken to have everything kept as neat as possible. Avoid crowding the house for the present, as many things may be kept under temporary shelter; but keep up a good stock of sweet plants, with enough of plants in bloom to make it attractive.

Dahlias.—Seed should be saved as often as it can be gathered ripe and dry. Remove all dead petals, otherwise the seed will rot in the pods, there being so much moisture at this time; a long piece of the footstalk should be gathered with it. See that all are correctly named before the frost arrives. Also mark promising seedlings.

Flower Garden.—All the one-year-old Scarlet Geraniums, including too the variegated class, which it is practicable to winter in any shape, should be taken up on the approach of frost, and either potted or packed in boxes, in dry sandy soil. These plants will bloom much earlier and more profusely the second year than the first, however well they are prepared; indeed, we are in the habit of keeping some kinds as long as we can, as we find them much more telling for certain purposes than young plants. Some of our vase Geraniums have six or seven hundred heads of bloom open at one time, and these in very small vases. When the above are potted, they should be placed under glass for a short time to enable them to recover themselves, after which their wintering will depend on what accommodation exists. Salvias, Fuchsias, tall Lobelias, &c., may also be lifted, and, if done with care, they will soon rally, and become very ornamental for mixing with greenhouse and conservatory plants. Now is a good time to put in cuttings of Calceolarias. Get the rest of the propagating finished quickly, and harden off those already struck. Pay attention to order and neatness by picking off decayed blooms and leaves and keeping the Grass and gravel clean.

Forcing Ground.—Rhubarb and Sea-kale may be started towards the end of the month, and the empty Melon and Cucumber pits should have the soil turned up and watered, and the pits filled with French Beans (which may have been sprouted for the purpose in heat), Lettuce, Endive, Parsley, and other things required for winter. Plant the Beans, if you have the room to spare, in pits heated so that you can give them a little fire heat by and bye; they will frequently continue bearing till Christmas, or even later. We prefer the Newington Wonder.

Hard-wooded Plants.—These will require placing under protection of glass at once. Allow them plenty of room and all the air you can, to get the wood properly ripened before winter. Before placing them in their winter quarters look to the drainage, and have the outsides of the pots well washed; no plant can thrive well when the surface soil and outside of the pot are covered with vegetation.

Hardy Fruit.—Many kinds of Apples and Pears should be gathered at once, where not already done; a few late-ripening kinds may remain

longer on the trees. In keeping the fruit, let all the finest specimens be laid separately in the fruit room, and handled as slightly as possible, even when being gathered; those intended for long keeping should on no account be tumbled together.

Hollyhocks.—The stools of choice kinds may be potted up, to produce cuttings during the winter. Cuttings will now strike readily if a little bottom heat is used; repot those first struck in nice light rich soil.

Kitchen Garden.—Plant a good breadth of Cabbage for early spring use; also, Cauliflowers sown last month should be pricked out on well-enriched soil, five or six together, to be covered hereafter with hand-glasses. Another portion of the plants should be pricked into cold frames, to be protected by glass during severe weather, and a portion also may be pricked on a warm south border, to take their chance. A portion of the true Bath Cos Lettuce may also be treated the same, and fill up the bases of walls and other sheltered places with good hardy varieties of Cabbage Lettuce, to stand the winter. Broccoli, Borecole, &c., should be frequently hoed between, and finally earthed up before frosts come on. Continue earthing up Celery and Cardoons, and tying up Lettuce and Endive, as the weather permits, and have the ground well stirred between every growing crop. Potatoes and Carrots may now be taken up and stored away; take especial care the latter are quite dry when put away. Remove all kinds of litter, decayed vegetables, &c., from the ground, and spread quicklime over the newly cleared ground; this will kill slugs, and save you much trouble in the spring.

Pelargoniums.—These should all be housed without delay, if not already done; and, after they are all got in, a good fumigation is necessary, to clean them thoroughly of green-fly. Those plants that are intended to flower early, and have not received their final shift, more especially the specimens that are selected for the early exhibitions, must not be delayed. Repot young plants as needed. Water carefully when they require it, and shut the house up soon in the afternoon; and towards the end of the month, if the weather is damp and cold, slight fires will be required at night, so as to keep a dry atmosphere; and when the weather is fine, an abundance of air should be given.

Pinks.—If not already done, finish planting out into their blooming beds, to enable them to get thoroughly established before winter. Great care should be taken after planting to keep the surface in a pliable state by stirring or hoeing on a dry day, as this will tend to facilitate their growth. The taller growing varieties should be secured by small sticks, to preserve them against strong winds. At the end of the month, pot up such varieties as are required for wintering in pots.

Tulips.—Examine the bulbs, and if not previously done, let them now be arranged for planting, making any alterations and improvements noted down in blooming time. New varieties should now be procured, and then rearrange them. The bed should now be prepared, that they may be got in about the 1st of November.

Vinery.—The earliest house of Vines, if Grapes are required next April, should be pruned at once, the Vines dressed, and the sashes put on towards the end of the month, previously covering the border, if outside, with a good coat of leaves or Fern.



Samolus
• *Samolus* *Samolus*
Pl. 107.

CAMELLIA "COUNTESS OF DERBY."

(PLATE 157.)

THIS truly fine Camellia, like many others of our best varieties, is of Italian origin, Mr. Veitch having imported it from Italy during the autumn of 1856. Having seen the plants when in bloom last spring, we can answer for the following description, taken from Mr. Veitch's catalogue just published, being strictly correct:—"The flowers are of immense size, and of a clear white, broadly and distinctly flaked with deep rose; the individual petals are of fine form and great substance, and most beautifully reflexed, which gives the flowers an effect second to no other in cultivation. It is of vigorous habit, with foliage of a peculiarly rich green." Our own impression when looking at the plants last spring was that it was the finest Camellia in cultivation, and which opinion we think will be borne out by all who take it into cultivation when it comes to bloom.

In our May number we gave a list of a few sterling new varieties which all growers of Camellias should have. Quite as much has been done by way of improving the form and properties of the Camellia as with the Azalea, Rhododendron, and other favourite flowers of the florist, though this is a fact not generally known. Take a few kinds, as the Double White, Fimbriata, Chandlerii, Imbricata, Colvillii, Beali, and one or two others from the old collections, and the rest will stand no comparison whatever with the magnificent kinds now to be had at ordinary prices. The new kinds being principally European hybrids are also of much more vigorous habit than the originally imported species, and sooner make specimen plants.

We have before alluded to the great value of the Camellia to country residences as a conservatory plant for the winter, and also for decorating corridors, halls, &c., it has no competitor; and we hope the day is not far distant when the same care and attention will be bestowed on it as is now done in many places on the continent, when we feel satisfied it will be as highly prized. A cool shady house for its summer growth, and protection from frost during winter, are all this noble tribe requires to form those magnificent specimens which they are capable of becoming when otherwise suitably grown.

In a note on this Camellia, Mr. Veitch, jun., informs us that it is at present profusely covered with buds, and that as he has propagated it extensively he hopes soon to be able to send it out.

STRAWBERRIES—ELEANOR, NIMROD, ADAIR.

I SEE in Strawberry catalogues, as well as in the accounts of the British Pomological Society in your August number, some things which I think are incorrect. Nimrod is said to be like Eleanor, and “difficult to be distinguished from it.” “Nimrod (Pince), was so like Adair, both in fruit and foliage, that the meeting were unable to distinguish them.” Permit me to observe, that, as these Strawberries grow here, they are, in both cases, as unlike as “horses and hens.” Eleanor is a very large, flattish, wedge-coned Strawberry—something like a wedge that you split wood with, a little rounded—with seeds deeply imbedded and far distant: its colour is, when properly ripened, deep red, and its flesh nearly red throughout. Its flavour is sharp, and with a little sugar it is a very good Strawberry, and, to my taste, the noblest that I have yet seen. No garden should be without it. The leaf-stalks, here, appear to be more furry or pubescent at the base than those of Nimrod. The growth also of the plant is more dwarf and bushy, and the leaves, though like those of Nimrod, are more taper, and of less substance than those of Nimrod. Mr. May and Mr. Ingram of Blandford, who have grown both Strawberries for some years, laugh at the assertion that Nimrod is Eleanor. I see, moreover, that my Eleanor and Nimrod, coming from a totally different locality, agree with theirs, both as to plant and fruit. Mr. Gill, nurseryman, of Blandford, gave me my Nimrod, unsolicited; and Mr. Tiley gave me Eleanor, Lecoq, Vilmoren, and Adair, unsolicited.

Let me now proceed to describe Nimrod, as it is here. Nimrod is Queen-flavoured and sweet, roundish, long-coned, and of a pale orange red. It is a very excellent Strawberry, and more like *Carolina superba*, as they grew under last summer's sun under the same hot wall, than any other, the leaves of the two being very different, and Nimrod being much hardier. I sent some fine plants of it to Mr. Nicholson, with the earth on; and Mr. F. Gloede has also taken some similar ones, fine uncropped plants, to France with him, as well as other Strawberries, one of which you may hear of another day. I must here say, that I do not dispute the correctness of the decision of the Botanic or Pomological Society, as to the fruits and plants presented to them under the names of Nimrod and Adair, but I mean to assert that Nimrod is a totally distinct Strawberry from Eleanor and Adair.

Now let us come to Adair. Adair is as unlike Nimrod, in foliage and fruit, as a “pump is unlike a wheelbarrow.” Adair is a roundish heart-shaped Strawberry, with long stems and vigorous leaves, somewhat cupped; but the leaves of Nimrod are perfectly flat. There is no Queen flavour in Adair, nor any peculiar flavour. I parted with it, though a heavy cropping, excellent second-class Strawberry, because I prefer Trollope's *Victoria*, hardly so firm, but good in every other respect. With regard to the colour of Adair; a little shaded on south side by a tree, it was pale reddish blush, and not “dark red.” Soil, situation, and different suns greatly alter the colour and also the flavour

of the same fruit. Moreover, the same plant, placed under a north wall or south, assumes a different character. The high characters of Messrs. Pince, Myatt, and Henderson need no defence from me; but it is due to them to issue these observations in relation to Eleanor, Nimrod, and Adair, three most distinct Strawberries.

I will now say a word about the Rival Queen, which I bought of Mr. Tiley in 1857, I believe after forcing, but I am not sure. They did well in plant, but fruited badly, in 1858; but this year they have flowered and fruited nobly. The flavour is first-rate, and so like the Queen that it would probably deceive you with your eyes shut. I had two fine picked dishes at my "Entertainment," and all who tasted it pronounced it to be delicious. I did not mention it in my last, because one visitor here said he did not think the plants were true; but now M. Gloede has been here, and cleared up that point, I have great pleasure in recommending this elegant and beautiful coned Strawberry, second to the Queen only in size and firmness, but superior in shape and the constitution of the plant. I like it better than *Carolina superba*, which is very good and first-rate; but the plant has hitherto assumed those canary tints which show its near relationship to the noble British Queen, which is, *præcipuè* and *pre-eminens*, the best Strawberry as yet known to me. Her Majesty, here, as usual, is of all colours—dense green, canary, and *Farfugium grande*. Hendrie's seedling, raised from her, is exactly like her in plant and leaf, but a much better doer, and, if good, and of Queen flavour, will be greatly increased here. In August next I shall be able to report on several new white seedlings, and also on Leopold and some others, sent to me, most kindly, by Mr. Nicholson, accompanied by a desire that I will give him, after fruiting, a candid opinion. As the old Hautbois and Queen are my touchstones of flavour, they will have to pass a severe ordeal, but I promise to be candid. My friend, M. Gloede, most kindly brought me the white Brittany Pine, Ambrosia, Malakoff, and others; these, in due time, I shall be able to speak of. I will only say now, in conclusion, that I hope that what I have said will not be taken amiss; and that, if I am wrong in the above remarks, some one who has had more experience will be kind enough to correct me. M. F. Gloede, whose visit was too short, has kindly promised to come in the fruiting season for a week, which implies a compliment more than I deserve. He is a talented linguist and fragrarian.

Rushton, Oct. 16.

W. F. RADCLYFFE.

BRUGMANSIA SUAVEOLENS.

PARTIES having large conservatories or entrance halls to decorate in the autumn, will find this one of the most useful plants, treated as under. If commencing with a young plant it must be grown on as much as possible the first year, keeping it to one stem; and if anything like justice has been done, it will attain a considerable height, so that the next season's routine may be taken as the annual one. In March or

April cut this back to (say) 5 or 6 feet, according to the height required, allowing from 3 to 4 for the growth of the young shoots before branching out. Shake it out, and repot it in a proportionate sized pot, giving it nothing but well-decayed Melon ground dung, in lumps, and a little sand; if convenient to the parties, give a little bottom heat, that by having a stock it gives earlier bloom, but this is by no means necessary to success; when it begins to break all the shoots must be rubbed off but one—in this and the dung, I consider, lies the secret. For three months, I have seen from twenty to eighty blooms out every morning on this young shoot, filling the air with perfume. The older the plant the more certain the success as to large blooms and rich dark leaves.

J. F.

LEASOWES, THE RESIDENCE OF THE POET SHENSTONE.

THIS place is famous in the history of modern landscape gardening, but very little is known of its details. The following from the pen of Whately may be worth preserving:—

“Near the entrance into the ground this walk suddenly plunges into a dark narrow dell, filled with small trees which grow upon abrupt and broken steeps, and watered by a brook, which falls among roots and stones down a natural cascade into the hollow. The stream at first is rapid and open; it is afterwards concealed by thickets, and can be traced only by its murmurs; and gliding then between little groups of trees, loses itself at last in a piece of water just below. The end of this sequestered spot opens to a pretty landscape, which is very simple; for the parts are but few, and all the objects are familiar; they are only the piece of water, some fields on an easy ascent beyond it, and the steeple of a church above them.

“The next scene is more solitary; it is confined within itself, a rude neglected bottom, the sides of which are over-run with bushes and Fern, interspersed with several trees. A rill also runs through this little valley, issuing from a wood which hangs on one of the declivities; the stream winds through the wood in a succession of cascades down a quick descent of a hundred and fifty yards in continuance; Alders and Hornbeam grow in the midst of its bed; they shoot up in several stems from the same root, and the current trickles amongst them. On the banks are some considerable trees, which spread but a chequered shade, and let in here and there a sunbeam to play upon the water; beyond them is a slight coppice, just sufficient to screen the spot from open view; but it casts no gloom, and the space within is all an animated scene; the stream has a peculiar vivacity, and the singular appearance of the upper falls, high in the trees, and seen through the boughs, is equally romantic, beautiful, and lively. The walk having passed through this wood, returns into the same valley, but into another part of it, similar in itself to the former; and yet they appear to be very different scenes, from the conduct only of the path; for, in the one, it is open,

in the bottom, and perfectly retired ; in the other, it is on the brow ; it is shaded, and it overlooks not only the little wild below, but some corn fields also on the opposite side, which, by their cheerfulness and their proximity, dissipate every idea of solitude.

“ At the extremity of the vale is a grove of large forest trees, inclining down a steep declivity ; and near it are two fields, both irregular, both beautiful, but distinguished in every particular ; the variety of Leasowes is wonderful ; all the enclosures are totally different ; there is seldom a single circumstance in which they agree. Of these near the grove, the lower field comprehends both the sides of a deep dip ; the upper is one large knoll ; the former is encompassed with thick wood ; the latter is open ; a slight hedge, and a serpentine river, are all its boundaries. Several trees, single or in groups, are scattered over the swells of the ground ; not a tree is to be seen on all the steeps of the hollow. The path creeps under a hedge round the one, and catches here and there only peeps of the country. It runs directly across the other to the highest eminence, and bursts at once upon the view.

“ This prospect is also a source of endless variety ; it is cheerful and extensive, over a fine hilly country, richly cultivated, and full of objects and inhabitants ; Hales Owen, a large town, is near ; and the Wrekin, at 30 miles distance, is distinctly visible in the horizon. From the knoll, which has been mentioned, it is seen altogether, and the beautiful farm of the Leasowes is included in the landscape. In other spots, plantations have been raised, or openings cut, on purpose to shut out, or let in, parts of it, at certain points of view. Just below the principal eminence, which commands the whole, is a seat, where all the striking objects being hid by a few trees, the scene is simply a range of enclosed country. This at other seats is excluded, and only the town, or the church, or the steeple without the church, appears. A village, a farm house, or a cottage, which had been unobserved in the confusion of the general prospect, becomes principal in more contracted views ; and the same object which at one place seemed exposed and solitary, is accompanied at another with a foreground of wood, or backed by a beautiful hill. The attention to every circumstance which could diversify the scene has been indefatigable ; but the art of the contrivance can never be perceived—the effect always seems accidental.

“ The transitions also are generally very sudden ; from this elevated and gay situation, the change is immediate to sober and quiet home views. The first is a pasture, elegant as a polished lawn, in size not diminutive, and enriched with several fine trees, scattered over ground which lies delightfully. Just below it is a little waste, shut up by rude steeps and wild hanging coppices, on one side of which is a wood, full of large timber trees, and thick with underwood. This receives into its bosom a small irregular piece of water, the other end of which is open ; and the light there breaking in enlivens all the rest, even where trees overhang, or thickets border upon the banks, though the reflection of the shadows, the stillness of the water, and the depth of the wood, spread a composure over the whole scene ; yet the coolness of it strikes no chill ; the shade spreads no gloom ; the retreat is peaceful and silent, but not solemn—a refreshing shelter from the scorching heat of noon,

without suggesting the most distant idea of the damp and the darkness of night.

“A rill much more gentle than any of the former runs from this piece of water through a coppice of considerable length, dropping here and there down a shallow fall, or winding about little pits, in which some groups of small trees are growing. The path is conducted along the bank to the foot of a hill, which it climbs in an awkward zig-zag; and on the top it enters a straight walk, over-arched with trees; but though the ascent and terrace command charming prospects, they are both too artificial for the character of the Leasowes. The path, however, as soon as it is freed from this restraint, recovers its former simplicity, and descends through several fields, from which are many pretty views of the farm, distinguished by the varieties of the ground, the different enclosures, the hedges, the hedge-rows, and the thickets, which divide them; or the clumps, the single trees, and now and then a haystack, which sometimes break the lines of the boundaries, and sometimes stand out in the midst of the pastures.

“At the end of the descent an enchanting grove overspreads a small valley, the abrupt sides of which form the banks of a lovely rivulet, which winds along the bottom; the stream rushes into the dell by a very precipitate cascade, which is seen through openings in the trees, glimmering at a distance among the shades which overhang it; the current, as it proceeds, drops down several falls, but between them it is placid and smooth; it is everywhere clear, and sometimes dappled by gleams of light; while the shadow of every single leaf is marked on the water, and the verdure of the foliage above, of the moss, and the grass, and the wild plants, on the brink, seems brightened in the reflection; various pretty clusters of open coppice wood are dispersed about the banks; stately forest trees rise in beautiful groups upon fine swelling knolls above them; and often one or two detached from the rest, incline down the slopes, or slant across the stream. As the valley descends, it grows more gloomy; the rivulet is lost in a pool, which is dull, encompassed and darkened by large trees; and just before the stream enters it, in the midst of a plantation of Yews, is a bridge of one arch, built of a dusky coloured stone, and simple even to rudeness; but this gloom is not a black spot, ill-united with the rest; it is only a deeper cast of shade; no part of the fence is lightsome; a solemnity prevails over the whole, and it receives an additional dignity from an inscription on a small obelisk, dedicating the grove to the genius of Virgil. Near to this delightful spot is the first entrance into the grounds, and thither the walk tends, along the side of a rill.

“But it would be injustice to quit the Leasowes without mentioning one or two circumstances, which, in following the course of the walk, could not well be taken notice of. The art with which the divisions between the fields are diversified is one of them; even the hedges are distinguished from each other; a common quickset fence is in one place the separation; in another, it is a lofty hedge-row, thick from the top to the bottom; in a third, it is a continued range of trees, with all their stems clear, and the light appearing in the intervals between their boughs and the bushes beneath them; in others, these lines of

trees are broken, a few groups only being left at different distances ; and sometimes a wood, a grove, a coppice, or a thicket, is the apparent boundary, and by them both the shape and the style of the enclosure are varied.

“The inscriptions which abound in the place are another striking peculiarity ; they are well known and justly admired ; and the elegance of the poetry, and the aptness of the quotations, atone for their length and number ; but, in general, inscriptions please no more than once ; the utmost they can pretend to, except when their allusions are emblematical, is to point out the beauties, or describe the effects, of the spots they belong to ; but those beauties and those effects must be very faint, which stand in need of the assistance. Inscriptions, however, to commemorate a departed friend are evidently exempt from this censure ; the monuments would be unintelligible without them ; and an urn, in a lonely grove, or in the midst of a field, is a favourite embellishment at the Leasowes. They are, indeed, amongst the principal ornaments of the place, for the buildings are mostly mere seats, or little root-houses ; a ruin of a priory is the largest, and that has no peculiar beauty to recommend it ; but a multiplicity of objects are unnecessary in the farm ; the country it commands is full of them, and every natural advantage of the place within itself has been discovered, applied, contrasted, and carried to the utmost perfection, in the purest taste, and with inexhaustible fancy.”

THE CAMELLIA.

WITHIN the last thirty years or so, Camellias have been planted in the open air, some against walls, and others as bushes ; and provided they are protected a little after planting, till their roots become firmly established in the soil, they stand as well as the common Laurel, in the climate of London. In Devonshire, Camellias have grown to immense bushes without any protection, and have also ripened seeds, from which young plants have been raised. Camellias, however, succeed best when treated as conservatory plants ; that is, when planted in an open border, under glass, just protected from frost, and freely exposed to light and air ; they then grow to large evergreen bushes, covered with dense foliage, upon which, as on a lovely background, their fine flowers are beautifully relieved : they are then far handsomer objects than when their roots are confined within the limits of a garden pot or box.

The most successful and generally applied method of increasing this family, is by grafting or inarching ; and by these means each variety is extended and perpetuated : the most suitable season for performing the operation is in spring, when the plants have done flowering, and show an inclination to grow ; the re-action of the vital powers does not however take place in all, at any one particular time, on account of Camellias being forced into bloom at different periods ; this point, therefore, I consider it best to leave to the good judgment and practical experience of the cultivator ; yet those that are done in the latter end of March and beginning of April will be most successful. Sometimes

they are increased by cuttings, but this is both a tedious and precarious method of obtaining them, especially the double varieties. It is only from seeds that we can expect new varieties, and of these, the single red is most prolific: they should be sown as soon as they are ripe, in a compost of one part loam, one part leaf mould, one part heath mould, and one part silver sand; after sowing, plunge the pots in a hot-bed, and the seeds will vegetate in a month or six weeks: if, on the other hand, the seeds are kept long, they will seldom vegetate in less than a year, and the greater number not at all. Stocks raised from seed are the best, but as these latter are seldom produced in any quantity in this country, and are seldom imported in a fit state to vegetate, recourse is had to some other source for the almost unlimited number annually required. Layering may be considered as the best means of meeting the demand, and it is accordingly much resorted to; for this purpose stools are planted, of the common red variety, or any of the common sorts, in a cold frame or pit, and layers are made of the young wood of the previous year, which will root freely, and make good stocks the following season.

On preparing soil for the *Camellia*, various opinions have been entertained, and two growers of this tribe of plant can scarcely be found who entirely agree in the preparation of their compost. The soil used by nurserymen, and that used by gardeners, ought to be two very different compositions: the nurseryman is looking to bulk of plant, and increase of young wood; while, on the other hand, the gardener's object is to increase the proportion of blossoms. The soil most suitable for growing the *Camellia*, and producing flowers, is two parts good loam from a pasture, and two parts heath mould, which ought to be brought to the compost yard at least twelve months previous to its being used, during which time it should be freely exposed to the action of the atmosphere, which is of great importance. The soil ought to be mixed, and broken with the spade, never resorting to the detestable and often-practised plan of sifting, which carries away and abstracts the decomposing fibrous matter, which is the principal support of plants cultivated in pots.

The soil used by nurserymen ought to be that recommended above, for seed sowing, which if used with the addition of a small portion of well-decomposed cow-dung, will have every tendency to produce young wood, which is their chief object.

In potting *Camellias*, great attention should be paid to secure a free drainage, a circumstance of infinite importance to their welfare: also, so to place the potsherds as to defy the entrance of the earthworm, having for a second course a quantity of burnt clay, or potsherds, broken about the size of horse beans; and finally, a layer of dry sphagnum or turf not decomposed, the quantity of each to be regulated by the size of the pots.

When the plants become rather large they may be placed in tubs, in preference to large pots, if there is not the convenience of a conservatory border for them. It may here be remarked with what apparent pleasure the roots cling to the sides of a tub and receive refreshment, and on the other hand how speedily they return whence they came,

namely, into the exhausted ball of earth, whenever they come in contact with the sides of a pot.

Various opinions are also held as to what season of the year is fittest for repotting Camellias, but this, I think, ought also to range under two heads: the one, with a view to the increase of wood, and the other that of blossoms; for, be it remembered, the production of wood, and of flowers, are two very different affairs. It is the opinion of some of our most practical men that potting should be performed as soon as they begin to grow; this is, I think, most applicable to the nurseryman's course of treatment, his object being to obtain luxuriant plants. The best season to repot them, to obtain a profusion of bloom, is, as soon as the young wood is ripe, or nearly so, when the flower buds can be observed. It is a good rule never to set in action a new series of fibres, until the flower buds are actually formed, but if the plants are potted at the period when re-action takes place, an abundance of wood and few flower buds must be expected. If the roots are matted, be particular in leasing them out at the bottom with the hand, and apply the knife as seldom as possible; it has a great tendency to make them canker and short-lived. After this is completed, the plants may be placed in a north aspect, beside a wall, or they may be placed in a greenhouse, according to the season they are wanted in flower. If placed in a house, a free current of air is indispensable. At all times, attention should be paid to the watering of them properly, more particularly during the swelling of the buds; likewise in their growing season they ought to be plentifully supplied with that element.

They should be frequently watered overhead, with a moderately fine syringe, so as to wash away the dust from their leaves, which to all plants is extremely injurious, as by falling on the surface it stops the pores through which they are supposed to breathe, which must consequently be highly detrimental to them.

E. P.

ROSA DEVONIENSIS IN PARTICULAR, AND OTHER ROSES IN GENERAL.

THOSE who have frequented the picture galleries of Italy must have often remarked a very favourite subject of the Italian masters—an unfortunate man tied to a stake, and exhibiting much the same sort of appearance that a target, on some crack archery fête day does, arrows sticking out all over his body, making him look more like the “fretful porcupine,” than would be consistent with comfort. Such a St. Sebastian (for that is the name of this poor martyr, and if I recollect aright there is one in the Dulwich Gallery, whose existence perhaps is about as authentic as our own St. George, or many other of the saintships, which have emanated from the same mint) it seems floriculturally I am to be. Your correspondent, Mr. Willcocks, takes me to task for a wrong done to that splendid rose “Devoniensis,” by giving it a French instead of an English parentage; then comes my friend “Iota,” who turns me over completely—philosophizes on my errors, and then calls

me a "Parthian" (I suppose his arrows are to take me flying, and to stamp me as a runaway); while, when I turn to the "Gossip of the Garden," I find another friend (save me from my friends!) "Φ," gives me a tremendous castigation on the same score, because forsooth I am desirous of attempting a change in the way of judging Auriculas—more of this by and bye.

But now let me say a word on the subject of your correspondent's letter about *Devoniensis*. I am afraid, though a very good gardener, he is not a lawyer; he has never had to hunt up a pedigree, or prove a case before a court; he has never experienced the delightful sensation of being cross-examined by a "'cute" lawyer, and after being spitted and gibbeted—been told, "no hearsay, if you please, Sir, speak as to facts, not what you think." Let him imagine then a sharp practitioner, who wishes to obtain a decent little property for a client, and who to do that has to consult various registers, and obtain certificates of births, deaths, &c. He has been very successful in his search, has got a nice bundle of them, and thinks all is in a fair train, when he is thrown off the scent, by the difficulty of obtaining one marriage certificate; he consults all sorts of people, they tell him "Oh yes! they know all about it, they believe the parties were married in Bubbleton Church;" off he goes, no such thing—the clerk thinks it was the next parish, there again he fails; and at last nonplussed he returns to his chief, and says he hears and understands and thinks. "Ah! my good friend, that won't do; we must have the proof, or our case fails." Now, when I began to read Mr. Willcocks' letter, I soliloquized—"Well, clearly I am wrong, nothing can be more circumstantial than this, and I shall have to apologize in the next number of the *Florist*;" but, as I went on, just where the interest of the paper was greatest, and where one expected the evidence most conclusively to overthrow me, a gleam of hope shot across me. Ah! he knows all about the pleasure he had—he tells very prettily his share in it; but, when he comes to *the point*, happily for me he fails, he *understood*, he says, that it was raised from seed. Now, when I say happily, I do not by any means wish to take away from us the credit of having reared such a Rose, but one does not like to find one's self in the wrong, and, until Mr. W. can give better evidence than what he heard, I must be content to say "non proven." I have certainly seen somewhere, whether in Mr. Rivers's "Rose Guide" or not, I cannot say—statements to the effect that it is of French origin, the presumption is in favour of that; the very thickness of the petal would be against the probability of such a flower being raised in this country; and I think it quite as likely as not, that the brave lieutenant picked it up in his wanderings, for it was at a time when the Rose was not so much thought of as now, when English growers did not visit the Continent as they do now—seize on everything they could, and then bring home a Rose and call it after their own name. This I call a *take-in*; the general public are led to believe that it was raised by the person whose name it bears, and perhaps are soft enough to think that they too may become raisers of seedlings that are to bear their names. I am glad to find that Mr. Standish does not claim Eugene Appert as his, but acknowledges its parentage. Little is to be gained by sailing

under false colours, even at the time, and by and bye one may get a sharp blow, which would have been avoided if strict truth had been adhered to; and, while upon the subject of Roses, I may take the opportunity of answering the questions of several correspondents as to the best Roses—as in every list of the kind that I may give I do not pledge myself that they will please everybody, but they are what have pleased me. I take now the Hybrid Perpetual class:—

Alexandrine Bachmeteff, bright red, a free blooming and good growing rose, inclined to show the eye.

Alice Leroy, a very bright pink, full, and prettily shaped rose, with me delicate in growth, and therefore better as a dwarf than a standard.

Baronne Prevost, an old and fine rose, true rose colour, but eclipsed by Colonel de Rougemont, in the same style.

Duchess of Norfolk, rich lively crimson, a very bright flower.

Colonel de Rougemont, an improved Baronne Prevost.

Cardinal Patrizzi, a bright crimson approaching scarlet, excellent.

Comte de Nanteuil, rose, a cupped Coupe d'Hébé style of flower, excellent habit.

Duke of Cambridge, brilliant red, large-sized flower.

Evêque de Nîmes, brilliant crimson, a beautiful rosette style of flower, but I fear the habit of the plant is not good.

Géant des Batailles, still an indispensable rose, though faulty in its dying off slaty, and with me inclined to die out.

General Bedeau, bright red; a very beautiful rose.

„ Brea, bright pink, with a good deal of the habit of the Bourbons in it.

„ Jacqueminot, you may find fault with it if you like, but you must have it.

„ Simpson, a very beautifully shaped carmine-coloured rose.

Jules Margottin, large, bright crimson, a free grower, and most abundant bloomer.

Lord Palmerston, bright carmine; as jaunty as his namesake, but of his habit I know nothing.

Lord Raglan, a well-shaped crimson rose, but I do not think it deserves to be called vivid, as there is a dulness about it, as far as my experience goes.

Eugene Appert, I shall be disappointed if this rose do not eclipse Géant and others of the same stock.

Louise Peyrouney, a splendid bright rose, shy in flowering, but grand in the extreme.

Madame Knorr, bright rose, the guard petals lighter than the centre, giving it sometimes the appearance of Blairii No. 2.

„ Laffay, a fine old rose.

„ Massou, crimson rose, a large and striking flower.

„ Rivers, in some catalogues marked as a pillar rose, with me very delicate, but a pretty flesh-coloured rose.

„ Vidot, a very beautifully shaped flesh-coloured rose.

Mathurin Regnier, an improved William Griffiths.

Paul Dupuy, a charming rose, rather delicate in growth.

Prince Leon, a lovely flower, too well known to need a word in its favour.

Souvenir de la Reine d'Angleterre, a vigorous growing, large, but somewhat coarse rose.

Triomphe de Paris, dark crimson; a fine free-growing variety.

„ l'Exposition, brilliant crimson, flower cupped, habit of plant excellent

„ des Beaux Arts, a bright crimson and warm-looking flower.

Victor Trouillard, a very dark well-filled crimson flower.

William Griffiths, a good old and indispensable flower.

Arthur de Sansal, deep purplish crimson, a well-shaped rose.

Prince de la Moskowa, the darkest Hybrid Perpetual grown, very striking.

Emperor Napoleon, nearly scarlet, and very beautiful.

I do not think that any of these 36 Roses would disappoint a grower, most of them I have in growth, and all but two or three I have seen in various places, and I think they can be with confidence recommended.

Deal, October 18.

D.

CHINESE YAM.

MESSRS. IVERY & SON, Dorking, exhibited to the Horticultural Society, last year, some fine tubers of the *Dioscorea Batatas*, accompanied by the following letter :—

“We have sent nine roots of *Dioscorea Batatas*. The three largest were obtained from whole roots planted the first week in April, and then weighed about 1 lb. each. The other six roots were obtained from cut sets planted at the same time, and side by side. The ground was trenched to the depth of 3 feet, and had a good coat of hot-bed manure; they were planted 1 foot apart in the row, and $2\frac{1}{2}$ feet between the rows (there being only two roots). When they began to grow we had them sticked with pea-sticks, but for these the plants soon got too strong, and we then had placed between the two rows some fir-poles, to which the plants soon clung, as the points of the shoots twist round the pole, in the same manner as those of the hop. The foliage of the plant is very ornamental; and the bloom, though small, is very fragrant.”

The largest of the tubers weighed 4 lb., and when taken up 4 lb. 6 oz. The above mode of cultivation may therefore be recommended. It is reasonable to suppose, that, as the plant is adapted for twining, its foliage will be in a more natural position, and better exposed to light, when elevated, than if left to trail on the damp soil, and that it will consequently the better elaborate the sap for the production of roots of large size, and superior quality.

PLANTING AND PLANTATIONS.

(Continued from page 302.)

THE result of mixing deciduous and evergreen trees in the same planting is to mar the effect of the whole, more especially in winter; for, when viewed from a distance, the naked stems of the deciduous plants give the appearance of so many blanks between the evergreens, and destroy the massiveness which groups of evergreens should present at that season; and which, viewing them as component parts of landscape scenery, should by all means be kept unbroken. The great beauty and utility of evergreens is best studied and appreciated in winter; not only do they afford shelter and retreats from the cold winds of our climate at that season, but they enliven the scenery by their cheerful expression, and on bright sunny days give animation to the landscape by the play of light on their foliage, caused by the reflection of the sun's rays from the surface of their leaves, and which, when put in motion by a breeze, afford a striking contrast to the general torpor of vegetation around. What is more beautiful in the depth of winter and early spring than to view large masses of evergreens, even of the commonest kinds, such as we now and then see surrounding some old-fashioned residence, bestowing a warmth and tone about the place which no other kind of embellishment can give, and forcing the idea upon us of the agreeable shelter

they afford to the mansion they enbower, as well as improving the general scenery of the locality. Under almost every arrangement of ornamental planting we would keep each class separate. Groups of flowering shrubs and ornamental leaved plants may be introduced under certain restrictions in the foreground of planting intended to be backed by evergreens; but they should not interfere with any landscape feature it is desirable the evergreens should assume, so that, while adding to the interest of the whole during summer, they will not detract from it in the winter, when their own powers of pleasing are over. What more effectual means (where a certain amount of *colour* is required at particular seasons) is there of showing to advantage the glowing tints of the Azalea, or the graceful forms of some species of Spiræa, or the rich scarlet pervading the dying leaves of the Sumach, than a deep background of evergreens, provided these latter are planted so as to employ the foreground of deciduous shrubs to assist merely in giving the colour wanted, without weakening the effect of the evergreen masses behind them in winter.

But there are very few places or situations where the massing or planting of deciduous trees and shrubs by themselves cannot be carried out, and then it is we see how completely they are suited for producing the most striking display of flowers and foliage in their season. Such combinations should not be introduced in sight of the principal windows of the mansion, for the reason, that groups of this character will have a cold and somewhat formal appearance during winter, owing to the naked ground which would be visible on the margin of their foreground. But in their proper situation, as an ornament to the pleasure grounds or shrubbery, what a rich glow of colour may be produced by selecting the most showy species of Azalea, Spiræa, Hibiscus, Syringa, Cytisus, Genista, Cistus, Amygdalus, Ribes, Wistaria, Weigela, Lonicera, Magnolias, &c., and grouping them with Acers, Acacias, Cercis, Aralias, the Leycesteria, Rhus, Quercus, Liriodendrons, Edwardsias, Koelreuteria, &c., with a foreground of Hypericums, tree and common Pæonies, Helianthemums, dwarf Cistus, and Clematis (pegged down), with occasional patches of Roses. We have never seen this tried on the large scale the plan deserves, but groups of this character would unquestionably produce during summer and autumn a grand effect; while by careful attention to the time of flowering, and the height and habit of each species, the utmost harmony might be kept up, and the groups made to assume any particular outline called for by the natural or artificial character of the surrounding scenery.

To carry out this system to its highest limits, as regards the production of bloom, good culture would be necessary. Many of the species, to grow them well, require liberal manurings; others, as the Azaleas, a particular soil; and some, annual prunings. These are points which are, however, easily managed, and common to all kinds of gardening.

While the above system would constitute a principal feature of the summer garden, evergreens alone would furnish the winter and early spring scenery with the grandest exhibition, and one giving more characteristic expression to the grounds; for, by studying the outline

and shade of colour of each species, the planter might fairly reckon on producing a scenic effect which, although perfectly distinct from that produced by deciduous trees, would be equally, perhaps more really beautiful than the former, with the advantage of even a larger field of materials to work with, for we may select from evergreens every shade of green, including the sombre hue of *Pinus pichta*, the Irish Yew, and *Garrya elliptica*, and the softest shades of silver grey, as witnessed in *Abies Menziesi*, the Swedish Juniper, Sabine's Pine, and *Abies Brunoniana*; then there is the warm green of *Pinus insignis* and *P. tuberculata*, the peculiar glaucous hue of many varieties of Cedar, the full deep green of *Abies grandis* and *Nordmanniana*. We might carry these remarks much further, but conclude by pointing to the warm yellow tints of the dwarf Corsican Pine, the gold-striped Yew, and variegated White Cedar, to the many beautiful forms of variegation met with in the Holly, the *Euonymus*, and some other evergreen plants, as affording the planter every gradation of tint, from the deepest green to a rich golden yellow and silver grey, and leaving him the power to employ each as judgment may direct for producing pictorial effect of the highest class—an effect totally lost by the indiscriminate principle of modern planting.

Then, as regards *habit*, what variety of form and outline do not evergreens give us. The spiral form of the upright Cypress holds the same position among evergreens as the Lombardy Poplar among deciduous trees; while the sharp outline of the Irish Yew and giant *Cephalotaxus*, with the more graceful and perhaps more beautiful Swedish Juniper, make them indispensable accompaniments to architectural gardening; and also for breaking up, and contrasting with round-headed trees and shrubs, for which, on a large scale, the large Californian Cypress (*C. Lambertiana*) will equally apply. *Abies grandis*, *pichta*, and *Nordmanniana* are admirably adapted, from their dense habit and dark foliage, for forming the back ground of plantations; each belongs to what may be termed the pyramidal section, and their representatives among the round-headed Pines will be *Pinus Benthamiana*, *austriaca*, *Montezumæ*, and the Pinaster and Stone Pines, *P. insignis* and *radiata* holding an intermediate place. The Cedars may occasionally be grouped, but their characteristic habit is best developed when planted singly; they may be sparingly admitted in the foreground of large masses and plantations, more especially the Deodar and Mount Atlas Cedar; but the Cedar of Lebanon harmonises completely with no other vegetable form, and requires the ground to itself, unless when planted where it can be said to ally itself with the simple but grand forms of the classic school of architecture, for which it is admirably adapted.

By a rather singular coincidence, the Coniferous tribe, while furnishing the most gigantic forms of vegetation to be met with on the surface of the globe, and as such adapted for the grandest situations where trees will grow, supply us also with specimens equally suited for the villa, the parsonage, and the *ferme ornée*. *Pinus Mugho* rarely attains 20 feet in height, with all the characteristics of an old tree; *Pinus pumilio* is yet dwarfer; *Abies orientalis* is a dwarf and elegant form of the common Spruce, and there are many other dwarf varieties

of the same species. *A. pinsapo* and *cephalonica* are both invaluable for specimens on small lawns, as well as for working in with others. *Juniperus recurva* and *caucasica* are beautiful weeping plants of moderate growth, and *Juniperus phœnicea* and *thurifera* are equally striking for situations where room is an object.

The length of our remarks on *Coniferae* must prevent our noticing at length the many handsome varieties of Holly, Yew, Box, Berberry, Mahonia, Euonymus, Phillyrea, and others; and also of that important class called American plants, of which, however, only the hardier kinds, which grow freely and mass well together, can the planter notice, these form round-headed groups with a dense habit, valuable for working in with other plants, independent of their flowers, which constitute them a great feature in May and June. In thus bringing forward what we consider would be an improvement in much of our present mode of making plantations and shrubberies, we feel we have only entered on the threshold of a most important subject, and one which we shall be glad to hear is taken up by those who have the spirit to break through the old rules of planting, and to substitute a more rational and higher class style of art in its stead.

PRUNING AND TRAINING THE VINE.

To several inquiries which have reached us on this subject, the following will be found a satisfactory reply. It is from Thompson's "Gardener's Assistant," an excellent work just completed, and of which we have spoken favourably in former numbers.

"The mode of bearing in the Vine is very different from that of many other kinds of fruit-trees. In the Peach, for example, no fruit is borne on the young shoots of the current year, but on these blossom-buds are formed for fruiting in the following season; and it can be perceived in winter where fruit will be situated in the summer, provided no accident occur. Such is not the case with the Vine; a shoot may push from an unseen latent eye in the old wood, and on this shoot as it grows, whilst young and tender, the rudiments of a bunch may be seen; and frequently, as the same shoot proceeds in growth, a second bunch, or more, will sometimes be formed. A young shoot may this year grow to the length of 15 or 20 feet, and having been shortened to 10 or 12 feet by cutting off the more recently formed, and consequently least matured portion, an eye or bud will be found in the axil of every leaf on that which remains. Next season it is possible that on this shoot, or rod, as it is termed, every eye may develop a young shoot which will bear one or two bunches of Grapes. Thus, any young shoot of a Vine, whether proceeding from a bud on the last year's shoot, or from older wood, is eligible for bearing fruit. Therefore, whether we leave the last year's shoots long, or short, or cut them back to within a few eyes of their bases, or even to the lowest eye, still on the shoot or shoots which push there may be fruit. It is necessary to bear in mind, that if the sap finds plenty of eyes on young rods of the preceding season's

growth, it will not readily push latent eyes from old wood. Some principally depend on the last year's shoots for bearing the crop, leaving a few at considerable length for that purpose; others do the same, cutting them back, however, to shorter lengths and leaving more of them; whilst many adopt the system of cutting back all the last year's wood nearly close to the stem. Accordingly there are three systems in use, termed the *long-rod*, the *short-rod*, and the *spur* systems, and there are various intermediate modifications of these. It must be admitted that good crops have been obtained for several years in succession by each of the above methods; and that being the case, it is evident that productiveness does not absolutely depend on the adoption of any particular mode of training. Whatever this may be, the production of foliage, and its maintenance in an efficient state, should be the primary consideration. As regards the culture of the Vine under glass, some that get credit for being good *fruit growers* are not in all cases good *leaf growers*. A person may obtain large crops of fruit for a few years if he have strong well-conditioned Vines to commence with; but if the quantity of foliage he maintains be not equal to supply the roots with a due share of elaborated sap, a general weakness will ensue. Roots under certain circumstances will continue to grow for a time, although there be no leaves on the plant; but the growth of roots cannot be long carried on independent of the leaves. If the foliage is scanty, the roots will be few; if unhealthy, the roots will soon become unhealthy too. The amount of foliage should be as much as can possibly be well exposed to light, of course more or less according to the surface of glass. So far then as regards the essential principle of maintaining the Vine in a healthy vigorous state, that mode of pruning and training is the best which admits of the greatest amount of foliage being exposed to light. In order to turn the structure to the best account, as great an amount as possible of the light transmitted through the glass should act upon the foliage. We do not, of course, mean that the leaves should form a close green canopy under the glass through which no direct solar rays could penetrate, and below which all would be darkness; on the contrary, there ought to be numerous openings clear of foliage, so that the whole of the interior of the house may be light. Under one sash the leaves should not be crowded, whilst below others there are none. Whatever mode of training we may choose to adopt, these observations should be borne in mind; for, by acting in accordance with them, Vines will be kept long in good health and bearing, instead of being ruined, as is frequently the case when, in training, the importance of the foliage is overlooked.

“Long-rod System.”—By this it is generally admitted that larger bunches are obtained than by the spur system; but for a greater weight of fruit under the same extent of glass the latter is preferred. In long-rod pruning the principle is to train a shoot of the last year's growth for producing shoots to bear fruit in the current year, shortening it more or less according to its strength. From the buds formed on it last season, young shoots will push and bear fruit in the present. After bearing, this rod is cut away; thus all the two-years old wood is dispensed with, provided it is not required to furnish the upper part of

the house. As by this system the two-years old rods have to be cut away in the autumn, young shoots must be trained up during the summer, in order to be ready to replace them; and these, in their turn, are cut out in the autumn of the following season, and are then replaced by shoots of that summer's growth. Long-rod training in its simplest form is accomplished as follows:—

“Plant the Vine, train up one shoot, and when the leaves have fallen prune it back to the bottom of the rafter. In the next season train up only two of the best shoots, and when they have completed that season's growth cut one of them back to two eyes at the base. The shoot left at greatest length will likely bear some fruit; the other, cut back to two eyes, will produce two shoots. In autumn the one which bore the fruit should be cut out; one of the two young shoots cut back according to its strength, will supply its place, and the other young shoot must be cut back to two eyes. ‘This mode of pruning and training is applicable principally to those houses where the rafters only are to be occupied by the Vine, as over the Pine-pit, or where other crops are cultivated in the body of the house; but when it is intended to occupy the whole roof, this system may still be adopted, by extending the Vine on each side of the rafter, till it meets that from the adjoining one; or, the Vine may be divided at the bottom of the rafter, on its first training, and formed with two principals on each side, making four principals to each Vine. If, however, the Vines should consist of the larger fruited class, such as Muscat of Alexandria, Black Hamburg, or Syrian, &c., one principal on the rafter, and one on each side will be much better than more. It may likewise be necessary to extend this system still further, where the house is large, and has a great length of rafter, which may be done by forming a second series one-half the way up the rafter.’—*Lindley's Guide*, p. 224.

“In carrying up a stem, to furnish shoots for the upper part of the house, that stem will be naked between the parts where shoots proceed to furnish the lower part. To these naked portions of stem the young wood of the lower series may be closely trained, for naked wood does not require light.

“*Short-rod System.*—Instead of training rods at considerable length for bearing, some prefer short rods, treating them on the same system of cutting out the shoots which have borne, and supplying their places with young shoots trained up for that purpose.

“Mr. Roberts selects buds for the origin of spurs alternately on each side of a shoot which is allowed to progress to the top of the house, and he removes the other buds on each side, but so that those retained on one side may be situated about half-way between those left on the other. About two-thirds of the buds are thus removed; those retained being situated alternately on the right and left sides of the shoot. The operation of disbudding is performed when the wood is nearly mature, by cutting out the bud in the axil of the leaf, taking care not to injure the latter. The buds left push, and generally bear in the following season; in summer they are stopped one joint beyond the fruit, and in autumn are cut back to two eyes. These produce two shoots, one of which is allowed to bear fruit, and the other is not. At the autumn

pruning the shoot which bore fruit is cut back to one eye at its base ; the other is shortened to two, three, or four eyes, cutting above a bold prominent bud for fruiting, and those below are cut clean out, with the exception of one at the base, which is allowed to grow for succession, but not to bear fruit. There are left then, on the shortened shoot, only one bud at top to bear fruit, and one at the base for a succession shoot.

“*Spur System.*—This is becoming the most general. The Vines are usually planted so that one can be trained up each rafter ; but some train them up the middle of the sash, and this we believe to be the preferable mode, because in spur training the shoots are cut back to buds close to the stem, and for the sake of the buds the leaves next the stem should be well exposed to light. Under the rafter the stem is partially shaded, whereas, in the middle of the sash, it is in the best position for the shoots proceeding from it being immediately acted upon by the light. A Vine may therefore be introduced at that point, and trained in an upward direction ; and care should be taken that shoots are encouraged alternately, by removing two buds and leaving one, or, in some cases, by retaining every other bud.

“When the young shoots push let them be gently brought to a horizontal position, by bending them a little at a time, but so as not to break them. Frequently, opposite the fourth leaf, the rudiments of a bunch will be developed. The leaf directly opposite the bunch must always be preserved. Some stop the young shoot at one joint or leaf beyond the fruit, and some at two joints. It seems to be of little importance, as regards the swelling of the bunch, at which it is done, and hence, many good gardeners are not very particular whether they stop at one or two joints. Where there is plenty of room for the foliage to expand fully, we would say stop at two joints ; for the sap elaborated by the additional leaf will go to strengthen the Vine, and increase its roots. On the other hand, if stopping above the second leaf beyond the fruit would render the foliage crowded, then, by all means stop at one leaf. After stopping, laterals will push ; they may be stopped above their first or second joints.

“*Thinning.*—This is sometimes necessary as regards the bunches ; and in all cases the berries ought to be properly thinned out and regulated. When more bunches are formed than the Vine can bring to perfection, those which are superabundant should be reduced in an early stage of their growth, at all events before they come into bloom. Sorts that produce large bunches should have fewer of them than those which naturally bear comparatively small bunches. The weight of fruit ought to correspond with the amount of good foliage ; we have frequently seen it out of all proportion, in fact, so much so that there have been nearly as many bunches as leaves. Naturally the young shoots push a few leaves, then a bunch or a tendril appears, and this is always opposite a leaf. As the shoot proceeds other bunches may form at greater or less intervals, but still in the natural state the number of leaves far exceeds the number of bunches.

“The thinning of the berries should also take place as soon as they are well set, which will be soon after blooming. The general form of the bunches of some sorts of Grapes is that of an inverted cone, of

which the stalk is the axis; in others the main stalk subdivides and forms shoulders. At the upper part of the bunch branchlets diverge from the axis, and often these again throw out stalks bearing frequently three berries, namely, two side ones and one terminal. Towards the lower extremity of the bunch the footstalks of the individual berries proceed directly from the axis, which terminates in a single berry. In thinning, the berries which proceed directly from the axis should be first removed, then each ramification should be successively inspected, and the berries thinned out where they would otherwise be too thick, taking care to cut off those nearest the axis or central stalk. The reason of this is obvious, for if we cut off, say, two-thirds of the outmost berries, those left would still be crowded; but by reversing the process the berries occupy a wider space, just as a number of persons forming a small circle may be overcrowded, but by each withdrawing from the centre, all soon find plenty of room. In proceeding up the bunch, peduncles from the main axis, bearing three berries, as already mentioned, will be met with. Mr. Roberts recommends (*Culture of the Vine*, p. 52) the terminal one to be left, and the two side ones removed. Where there are shoulders, they should be thinned on the same principle, and also tied away from the main part of the bunch by slender pieces of matting. The thinning should be modified according to the varieties, and the space their berries require when full-grown; and in avoiding overcrowding, the berries should not be made too thin and straggling.

"In thinning, the berries should not be touched either with head or hands that are perspiring; and as they increase in size after the first thinning, the bunches should be looked over, and regulated by a second thinning when necessary.

"*Pot Culture.*—The cultivation of Vines in pots is not new, for it was practised by Speechly at Welbeck in the end of the last century, but chiefly with a view of proving varieties forming part of a collection too extensive for being all planted in the vineries. Recently, however, this mode of culture is found very advantageous in other respects, especially as regards a very early supply; for by it such can be obtained without forcing the permanent Vines so much in winter, and consequently they are enabled to bear larger and finer crops for many years consecutively.

"Plants for fruiting in pots should be raised from eyes, and grown as strong as possible in rich turfy loam mixed with about one-third of horse-dung, and a little bone-dust. The temperature should be gradually increased from 60° to 80° or 90° by sun heat, and a bottom heat always a few degrees higher must be maintained. As the roots require more room, the plants ought to be shifted from 3-inch pots into those of 6, 9, 13, or 15 inches in diameter, and in either of the latter two sizes they may be fruited in the following season. As growth proceeds it should be determined how the plant is to be trained for fruiting in the ensuing season, whether upright, arched spirally, or umbrella-shaped; and then from what part of the shoot it would be desirable that buds to push shoots for fruiting next year should be situated. The lowest of these buds having been fixed upon, the leader ought to be

stopped at five or six joints above it by pinching out the growing point. From the axil of the leaf, immediately below the point of stopping, a lateral will readily push, and a bud by its side in the same axil will not likely do so till next season if the lateral is allowed to grow; the latter should therefore be entirely removed as soon as it can be laid hold of. The bud will then start and take the lead, making a much stronger shoot than the lateral would have done. This stopping will concentrate the sap in the buds below, and tend to ensure their breaking into fruitful shoots in the following season. When the new leader has formed buds as high as will be required for fruit shoots, it should be also stopped and the lateral displaced, so as to stimulate the latent bud to take the lead as before. It may be allowed to grow to the length of 7 feet, and then be finally stopped. A few laterals near the top may be permitted to push several joints; those situated lower should be pinched at an early stage of their growth, and entirely removed when the wood of the principal shoot begins to turn brown. In the beginning or middle of July the wood ought to be ripe along the whole 7 feet of rod, and any laterals remaining should be cleared off; the pots must then be removed to the south side of a wall, or any convenient shelter, and mulched with some substance which will protect the roots from the vicissitudes of cold and heat. Prune the plants in October, top-dress with a compost of rich turfy loam in November, wash them with sulphur and soft soap, and they will then be ready for forcing. About the middle of November, earlier or later according to the urgency of the demand for early Grapes, the plants should be introduced into the forcing house or pit. To ensure the greatest success, the pots should be plunged in a heat of 65° or 70°; the atmospheric temperature may follow that in the table already given; and the bottom heat ought always to be as high as the mean top heat. Train six or eight shoots for fruiting; but in order to have the bunches fine, only one bunch should be left on each. The shoot ought to be stopped at one joint beyond the bunch. Keep the air rather dry when the plants are in flower; and supply manure water alternately with pure water. By these means 6 or 8 lbs. of well-ripened Grapes may be obtained from each pot, in April, sixteen months after striking the plant from the eye.

“The above may be considered one of the best modes where bottom heat can be afforded; but, instead of raising plants from eyes in one season and fruiting them in the next, plants may be reared with less heat and fruited after two seasons' growth. In the autumn after propagation they may be cut down to two or three eyes. In February, the best shoot from these should be trained as directed for those of plants forced in the winter following the first season's growth from the eye. Some place the pots on rich compost, or in other pots nearly filled with such, in order that the roots of the Vines whilst being forced may penetrate into it on passing through the hole in the bottom of the pot.

“It is necessary to observe, that Vines and other fruit-trees in pots are frequently treated when at rest as if they were certain kinds of bulbs, which, having a store of moisture in themselves, do not require to be supplied with any whilst vegetation is inactive. But such is not

the case with Vines, and unless it can be proved that the soil in which Vines have lived out of doors for hundreds of years is drier in winter than in summer, we must conclude that keeping the roots of pot Vines in winter in a soil as dry as dust must be very injurious to the plants."

WINTERING OF AURICULAS.

"PUT your frames in a southerly or westerly aspect," says the *Florist*: "Let your frames face the north-east during the winter," says the "Gossip for the Garden:" "Turn your frames to the north," says a contributor to the *Florist*. Now, here are differences of opinion with a vengeance, and when doctors differ, who is to decide? Let us ask common sense what it says, and I think that it will decide against the *westerly* view of the case; the inevitable result of that must be a constant succession of freezing and thawing, which must be injurious to the plants, and moreover the hurrying of them on into a premature bloom; and should, by any neglect, the plants, when in this forward state, be left uncovered during a frosty night, you will have a crumpled bloom. The Auricula naturally, we know, is an Alpine plant, lying warm under its snow covering for months; but high cultivation has made it tender, and therefore we cannot with impunity allow it to be frozen much, especially after the bloom has shown itself. My own opinion then, is, to let them have an aspect in winter where they will not get much sun, and not to remove them to a more sunny one until frost is pretty well over, *if at all*; yes, if at all—for I am not sure whether a north-east aspect would not suit them in early spring, if you could break off the wind. I shall try one frame this way this season, and report on the result; if I recollect right, this is the position of Dr. Plant's blooming stage. And now, when one's pen goes off on the subject of Auriculas, there is no knowing where it is to stop. I fear very much there is but little prospect of a good bloom this spring; from correspondents in all directions—Scotland, Yorkshire, Cheltenham, &c.—there is the one cry, "I never knew such a quantity of autumn trusses;" and I can add to the testimony. Last year it was confined, as far as I was concerned, to two or three kinds; now, it has spread like an epidemic all over the frame, and no sort seems to be determined to be out of the fashion. Mr. Lightbody says, "I have had great difficulty in supplying even a dozen plants, nearly the whole of my stock having sent up autumn blooms. I never experienced the like before." Were there a probability of a mild winter this would not so much matter, but see what an October we have—what a climax to one of the most extraordinary seasons on record—on the 23rd of the month four degrees of frost, all out-of-doors things blackened and dead, Chrysanthemums and Pompones even looking miserable; at least in the neighbourhood of Brighton, Arundel, &c., where I have been, for what will be the state of my own I do not exactly know. I am sorry for this, as far as my favourite Auriculas are concerned; there are so many who are now growing them for the first time—so many, too, whose love of them has

revived, that it will be rather disappointing to have a bad bloom. However, let us hope for better things. Next month I may have a word more to say upon the subject, for it is now so late in the month I am afraid the editor will cry out.

Deal, Oct. 26.

D.

HOW TO MAKE A MUSHROOM BED.

PREVIOUS to making beds (for they may be made at any season of the year), collect a quantity of fresh horse dung that has not been exposed to wet or fermentation; clear it of long straw, so as to leave all the short that has been trodden into the wet interstices of the stable floor, partially dry it, either in a shed or under a tree; turn it over once or twice, till it is half dry; to this add one-fourth of light turf, cut fresh from a pasture field, chopped small with the spade, but not sifted; a few decaying Oak or Beech leaves, and a small portion of sheep or deer's dung; mix the whole well together, and throw them in a heap till they begin to sweat, then take and spread a layer of the mixture four inches thick, on the place where they are intended to be grown, and beat it down firmly with a mallet, and continue this till the bed is not less than a foot thick; should it heat so that there is danger of rotting, make a few holes in the bed with a dibble; of this, however, there is little fear, if the dung and soil have been properly dried. After the heat begins to subside the spawn is to be put in, making holes about nine inches apart, and putting pieces of the spawn about three or four inches square in them, leaving the holes open at the top, to allow the steam, if any, to escape; about a fortnight after the spawn has been put in the holes should be again spawned, in case the first should have received any injury, and also to prolong the bearing of the bed; close them firmly up as soon as the spawn has run through the bed, which can easily be known by examination; the bed is to be covered over with dry soil from a pasture field or common, and firmly pressed down, but not beaten, as that would break the threads of spawn, which are fast approaching the state of Mushrooms.

Mushrooms are impatient of wet, therefore, wherever they are grown, it is indispensable that they should have a dry bottom; when the beds are in want of water, the best plan is to give them a moderate watering at once, in preference to many light waterings; the water should be warm, and though the crop should be destroyed, they will spring up in a few days with renewed vigour. Mushrooms may be grown in any place that is dry—in a shed, or a stable, in a box, or a drawer; and in either case the process is the same. Covering the beds is injurious, and should not be adopted except in severe weather, or in old beds where the heat is decayed.

Mushrooms are impatient of the extremes either of heat or cold; the proper temperature is from 55° to 60°, and where this cannot be steadily maintained, by some means or other, the cultivation of them in the winter season should not be attempted.

The beds, made in the manner herein described, will be firm, yet elastic, and if the dung has been properly dried there will be little fear of its overheating; at the same time its decomposition will be prevented, and that mild heat, so congenial to the Mushroom, will be prolonged. The plentiful use of earth, moreover, will tend to give it that firmness of flesh and fineness of flavour which we seek for in vain in Mushrooms grown in the dark, or on a bed of rancid dung.

The principal requisites for the successful culture of the Mushroom may be thus defined:—never allow the dung to get wet or to ferment, keep a regular heat, and avoid all damp; these, with a moderate share of attention, will ensure a moderate crop of good Mushrooms.

C. M. D.

NOTES ON THE MONTH.

“THE extraordinary mildness of the season” which has lately given the country newspapers a vast amount of trouble to chronicle all the *proofs* which wondering countrymen like to have recorded—of Apple trees blooming in September, of ripe Strawberries picked in October, and a whole budget of similar *extraordinaries*—was brought to a close by the sudden appearance of winter on the 21st, and which has continued up to the day we write (the 24th), on the morning of which our thermometer registered 10° of frost, the nights of the 22nd and 23rd having shown 7° and 8° . There was a fall of snow on the morning of the 23rd in some places two inches thick, and up to the present time there is every appearance of a continuance of cold weather. The effect of this has been to kill all the tender plants of the flower gardens, and many kinds of vegetables. A frost of such severity, so early in the season, has not occurred for many years; and without wishing to speak in the spirit of a prediction, we incline to the opinion, formed on observations of our own, that we shall have an early winter.

The unusual warmth of September and the early portion of October, attended with the drenching showers which have frequently fallen, has had a wonderful effect on all kinds of green crops, both field and garden. Swedes and Turnips were never better, notwithstanding that here and there the *Black Jack* has committed devastations with the latter. Potatoes have been a total failure in some localities, but much better in others. As the cause of failure can now be clearly traced to the effect of electrical storms, we hope some of our scientific men will further investigate this important subject, if only to show the connexion between the cause and effect. The fruit crop taken generally has been a very short one. Apples in certain situations have partially succeeded, and in others are a total failure; we hear that on the south-west coast, that is from Brighton to Cornwall, the crops are good, particularly in South Devon, where the yield of cyder is stated to be a very large one. Pears are a very short crop, and are ripening early, so that the fruit-rooms will soon be clear of all but the very latest kinds; Plums were

thin, and so was the crop of Damsons. Looking at the result of the past summer, on fruit trees, there is good hope for another season, if it proves propitious when the trees are in bloom. The wood on wall fruit trees has so far ripened well, and as the present frost will stop all further growth, we may expect to get the ripening process completed early, and of course the wood well matured—the same rule will apply to orchard and open garden trees; so, with our present prospects, we may look forward hopefully to 1860.

I see by the *Gardeners' Chronicle* that a garden superintendent for the Horticultural Society is advertised for at a liberal salary, to commence with the new gardens at Kensington Gore, the subscription list for which, it appears, from the same source, is nearly filled up. We hope he best things from this successful move towards resuscitating the society. But whether the garden committee (who have the appointment of the superintendent) will succeed in obtaining a person possessing the many qualifications which the *Gardeners' Chronicle* states are indispensable to any one filling the office, is very doubtful; it is an extraordinary opening, and certainly the qualifications required are no less extraordinary: we shall see!

G. F.

THE ORANGE.

THE Orange (says Sutton in his work on the Grape and the Orange) has generally been found to succeed in countries most favourable to the cultivation of the Vine, though it requires a very different soil; and a lower latitude would also seem congenial to it. It is not indigenous to Persia, though it is now much cultivated there. The China Orange, like the Grape, is the better for a little frost. In Australia* I have noticed that the fruit begins to ripen and acquires the highest flavour after the frost has checked the growth of the trees, which there make strong autumnal shoots, and in some cases produce abundance of flowers at that season. The fruit on the top of the tree is the best, has the thinnest rind, and the highest flavour. There are several varieties in the colony, but soil and situation make a considerable difference in the growth and quality of the fruit, as the tree is very choice in its soil, and will not thrive in such as are not suited to its nature.

It is curious to notice the changes which have been made in the names of the Orange, since I can remember. In London, more than sixty years ago, they were then generally known as the China Oranges. "Here's your sweet China Oranges!" was then the cry: now it is the "Real St. Michaels!" the fine Lisbon, the Malta, the Mandarin, the Tangier, &c., all of which, I believe, are varieties from the China Oranges. Time makes great changes in the names of things. Certain it is, also, that climate, soil, and cultivation work wonderful changes in plants and fruits, so that they can hardly be known again by the skilful botanist. The varieties of the Orange, like

* Fruit of the "Navel" Orange from Australia, was exhibited in Webber's window, in Covent Garden, last spring.

the Apple, the Peach, &c., are brought to a maturity and a high saccharine quality by great pains, labour, and long cultivation, with a suitable soil and climate; and thence old names and sorts become extinct, and new ones prevail.

The best stocks for working the Orange on, I have found by experience to be those of the Spanish Lemon. I have been informed by persons of high respectability, who have resided at Malta, that the best Oranges there are grafted on the Pomegranate. I have tried this in my Orangery, but I never could get them to grow. I believe it is a mere fiction to say that the Orange unites with the Pomegranate: indeed I have been well informed that Sir Joseph Banks ascertained that the blood-red Orange of Malta has its peculiarity from the nature of the soil, on a part of that island where scoria abounds, and red ochre: these causes have given to the Orange of Malta the colour which distinguishes it as the blood-red Orange, and it does not proceed, as has been reported, from being worked on the citron. Of Citri I reckon five species:—1, the Orange (*Aurantium*); 2, the Citron; 3, the Lime; 4, the Lemon; 5, the Shaddock. Their respective varieties consist of hybrids innumerable, many of which intermix. Some of the species, we learn, were well known in Europe, and cultivated; one has its name from Spain; but whether it is indigenous, or was introduced there from Africa by the Moors, I am not able to tell, or from whence it came,—I mean the Seville or bitter Orange. There is a great variety of Oranges now in the London market, and other markets of Europe, differing very little (except two or three of them) from each other; yet an experienced dealer can tell you from which country they came. The Saint Michael's are the best. The modern Lemon, I think, differs much from what was sold in my younger days; it is more mixed with the perfumed hard citron, and, in my opinion, is improved in its acid, though it has not so much juice. It is, I believe, the Lisbon Lemon, and is cultivated at the Azores and in Australia; it is a good keeping Lemon. The Lime and Shaddock are tropical plants, or best suited to a tropical climate, being common in the East and West Indies. At the Cape of Good Hope, in South America, the Brazils, and new South Wales, the China Orange is extensively cultivated. At Rio Janeiro I have seen them very large, and they are there very sweet, but not of so lively a taste as at Sydney; the heat of the climate seems to injure the acidous flavour. It is very curious that the Portugal Lemon should lose its fine acid in America, and become so extremely bitter, that it is useless as a Lemon; while the Lime there possesses a fine sharp acid. When in South America, I was told that they had not a good Lemon in any part of America. Colonel Paterson, on his voyage to Sydney, in 1799, touched at Saint Salvador, at the time the Oranges were ripe, and he told me they were the best he had ever met with. He succeeded in taking six of the plants to Sydney, and in 1801 presented me with three of them; they were the originals of those now in my Orangery. I have obtained some good varieties from them by working on the stocks of the Spanish Lemon, and again other varieties from the seeds of these worked trees; more varieties may be gained by working the China Orange on the stocks of the Seville. The Lime does

not succeed at Paramatta; it cannot endure any frost, which, though not sufficient there to produce ice but very rarely, or to injure the Orange, would kill the Lime. All the Limes that I have seen are of low growth; while the Orange and the Lemon rise to a good height,—twenty-five feet or more. The culture of what I call the hardy sorts of the Citrus genus is much the same; they all require a sheltered situation, a rather dry, strong soil, on a gentle slope: though moisture is not disagreeable to them, yet a wet or swampy ground is not suitable for producing good fruit, or preserving the health of the trees; it should have a rich mould on the surface, with a deep, tenacious subsoil, into which their fangs, or strong, deep-holding roots can penetrate, so as to support the tree in hot and dry seasons.

The sweetest fruit is produced after hot summers. A sandy or porous rocky ground is not fit for them. Indeed the Orange may be said to be very fastidious in its choice of situations, soils, &c., and is very sensible to injury, which it does not soon overcome, nor does it bear much pruning; it is, I think, the better for having its branches near the ground, so as to shade its roots.

GEOMETRICAL ARRANGEMENT FOR AN AMERICAN GARDEN.

REFERENCES TO PLAN.

- A.—General turf level of great panel.
- B.—Easy turf sloping descents into panel, angle $22\frac{1}{2}$ degrees.
- C.—General turf slope bounding panel, angle 30 degrees.
- D.—Middle level of turf, with beds cut out thereon.
- E.—Gravel walks round the entire garden, with large circles at the angles.
- F.—Gravel slope of easy gradient—1 in 5, or angle of 9 degrees; the broad sloping banks on each side are formed at the same angle.
- G.—Stone steps in mitres of the sloping banks, with side blockings, and terminating piers and vases.
- H.—Upper level broad turf promenade.
- I.—Circular recesses in angles, each containing a seat forming three-fourths of a circle.
- K.—Winding gravel approaches.
- L.—Architectural approaches on two sides, by which it is connected with a series of geometrical arrangements.
- M.—Stone fountain in the centre.
- N.—Stone pedestals for large tazza vases or groups of statuary.
- O.—Eight large compound beds formed and planted as follows:—the space between the two outer lines is a slope of turf rising 18 inches above the general level, A.; between the second and third lines is flat turf; and the remainder is to be filled up with shrubs. An Irish Yew is to be planted in the centres of the terminating circles in each bed, each Yew being surrounded by a different variety of dwarf Heath, planted sufficiently close to cover the entire space within the circles. The main portions of the clumps are to be filled each with a distinct choice variety of large-flowering Rhododendron; and surrounded, as shown by dotted lines, each with a line of some different dwarf species, as *hirsutum*, *daphnoides*, &c.
- P.—Standard Rhododendrons, in pairs, of different choice kinds, carefully selected as to size, habit, colour, &c.
- Q.—Large clumps, to be filled with Ghent Azaleas, and margined by a line of Rhododendron *ponticum variegatum*, cut in well every year just before making its new growth, that it may always be kept dwarf.

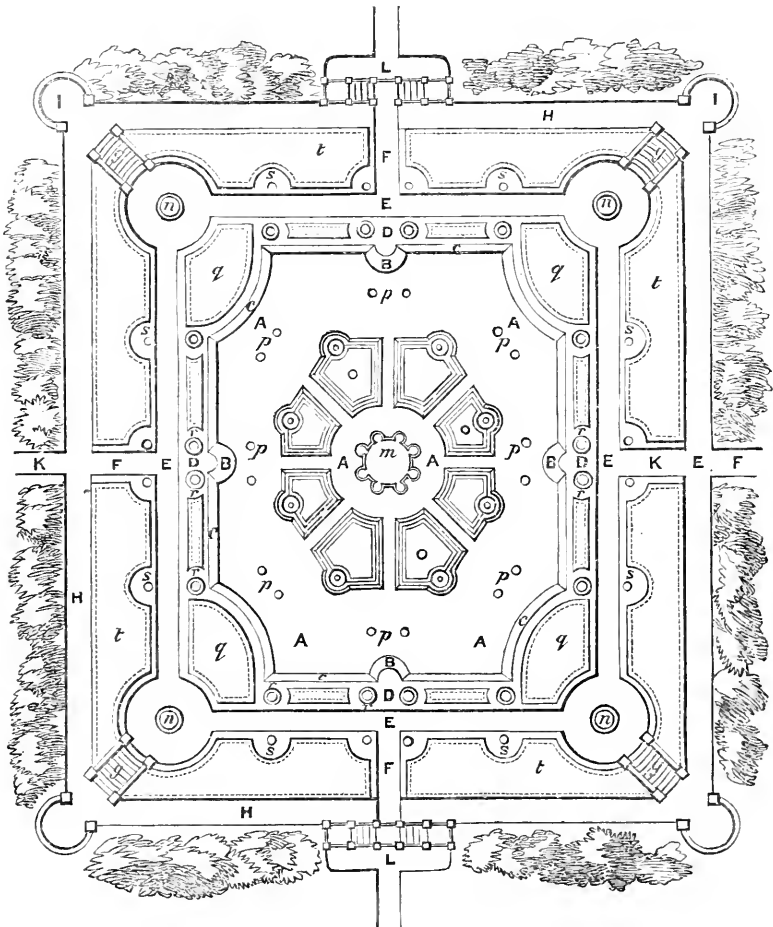
r.—Sixteen small round beds, containing an Irish Juniper in the centre of each, the remainder being filled up with different kinds of dwarf Heath. The eight long narrow beds, on the same level, are each to be filled with two kinds of shrub; a marginal line being planted round each of a distinct species of *Ledum*, *Pernettya*, *Gaultheria*, &c., and the centres filled each with a distinct species of *Andromeda*, *Vaccinium*, *Kalmia*, &c.

s.—Single specimen of Siberian *Arbor-vitæ*, planted on the sloping bank.

t.—Masses of *Rhododendrons* of the less choice varieties, mixed with *Azaleas*, and margined all round with a single line of *Mahonia aquifolium*.

u.—Bank of ordinary mixed shrubs, margined towards the turf walk by a fringe of Ivy, *Cotoneaster*, *Savin*, and similar dwarf evergreen shrubs, which will cover the ground, and admit of being clipped to a straight line.

All the above shrubs within the Grass promenade, excepting the standard and fastigate specimens, are intended to be kept within their prescribed limits by pruning. This is to be done in every case immediately after the kind in question has done flowering, that its shoots may have time to perfect their growth for the ensuing season.



REVIEW.

The Fern Collector's Album.

A HANDSOME quarto portfolio bearing this title has just been published by Mr. Hardwicke of Piccadilly. It is tastefully bound "in scarlet and gold, with blank leaves, on which dried specimens may be fastened by the collector; and short accounts of the structure, habitation, and cultivation of each species on the opposite page." It therefore offers an excellent inducement for us to turn our country rambles to a profitable account. Ferns retain in a dried state their original beauty, both of form and colour, better than most plants. A portfolio like the one now under notice, when filled, may therefore be made a source of real delight, not only to the possessor, but to others.

In the preface we find the following useful instructions respecting Fern drying, which we extract for the encouragement of beginners.

"To those who have not already made botanical collections, we would give the following simple directions for their guidance:—Before you leave home, get any carpenter to plane you two deal boards, about half an inch thick, a foot wide, and a foot and a half long; between these, place one or two quires of Bentall's drying paper, which may be bought at almost any stationer's, or, if unattainable, common blotting paper and old newspapers will answer very well. Round the boards put two narrow but strong leather straps, which cost about a shilling each; these must be drawn as tightly as possible, and will secure a great amount of pressure on the plants inside; and the whole may be strapped on the top of a box in travelling, so as not to take up much room. In gathering the Ferns, cut them as low down the stem as possible, and, in small specimens, get up the root if you can. In putting them to dry in the blotting paper, have respect to the natural position of the Fern, and also to the size of the sheet of paper on which they are to be finally placed. When the fronds are long, or the specimens large, they may be bent so as to lie in a smaller space than they otherwise could, and, if dried in a certain position, will retain the form easily. It is best at first to make the pressure lightly, so as to alter the form of the plant if needful before it is completely dried; then increase the pressure day by day until the specimens are ready to remove. Ferns dry quickly and easily, and may without injury be kept in the drying paper for some time; when, however, they are removed for putting down finally, they should be secured by thin little strips of gummed paper, which is best prepared beforehand by covering a sheet of note paper with a strong solution of gum, which, when dry, may be kept for a long time ready for use: the thinner the strips are cut the better, so as to hold the parts of the plant in their right position. This plan is preferable to gumming the whole plant or portions of it, as the little slips can at any time be removed with a pen-knife, without injuring the paper or book in which they are fixed, should there be occasion to remove the specimens. In drying your Ferns, be careful to change the blotting paper two or three times a week, so as to remove any dampness; and dry your paper in the sun, or before the fire, very often. It is best to

have two sets of paper, so that one can be dried while the other is in use. Any ordinary Fern will be fit to put in the folio in two or three weeks at most."

The work itself we heartily recommend to the notice of our readers. By lovers of Ferns, and who are not, we are sure it will be greatly prized.

ROSES—OLD AND NEW.

THE question of new and old Roses, I believe, is still unsettled, and unsettled it will remain so long as the advocates of each side refuse to look calmly on the reverse of the medal. Among old Roses, the *few* leaps of the day remain, and will long remain, undimmed; but the *many* slight improvements, good in their time, are every year falling farther and farther back before successive improvements. At the London exhibitions this year, Boule de Nanteuil and Coupe d'Hébé—the leaps of their day—were as beautiful as ever, but we missed many old ones that we had been accustomed to see; on the other hand, Eveque de Nîmes, Louise Chaix, and some other new ones lent a brilliancy to the exhibitions which they never attained before. It makes no little difference to a stand of 24 varieties of Roses, if we take out the worst and replace it with one equal or superior to any one of the remaining 23.

AN OLD SOLDIER.

CALENDAR FOR THE MONTH.

Auriculas.—There is often trouble at this season in keeping these plants sufficiently dry, to prevent damping of the foliage. Give all the air possible without allowing them to have rain. If the plants are in an elevated position, so much the better. Remove dead foliage as often as it appears.

Azaleas and Camellias.—The buds of the Camellias, where set too thickly, should be thinned out at once. During winter, the plants intended for blooming late should be kept cool, but at the same time well attended to with water, as the buds are now filling themselves, weakly and underpotted plants will be benefited (even now) with weak manure water occasionally. Place a few of the earliest rested Camellias in a rather warmer house to bring them into bloom quicker. Small plants are invaluable for rooms during the winter, and should be brought on in succession. Azaleas, keep cool, and with a dryish atmosphere. A few good forcing kinds may now be placed in a warmer house to forward them.

Carnations and Picotees.—Treat these plants nearly similar to the Auricula, so long as wet weather continues, and water but sparingly

in clear weather. Cleanliness, with plenty of light and air, is the principal thing to attend to, to ensure success. All should by this time be in their winter quarters.

Cinerarias.—This and next month are the worst for the culture of this plant, being subject to mildew; great care must be taken to sulphur such as are infected by it. Specimen plants will now require great attention; thin out all small and decaying leaves, and peg down the strong, to admit the light and air. Such as are required for early flowering may now have their final shift; stop, that is, pinch out, the tops of their shoots as soon as thoroughly established. In potting, give a light compost, viz., two parts good turfy loam, with a good admixture of well decomposed stable manure, and leaf mould; use sand liberally. In placing, keep as near the glass as possible.

Conservatory.—This department will now require every care to maintain a display of bloom, and to preserve the necessary neatness and order, that at the same time it may afford an enjoyable retreat in bad weather, or during the evening if it is accessible from the mansion. Heliotropes, Mignonette, Jasmines, Tea Roses, Daphne indica, Violets, and other sweet scented plants, should be largely introduced; and more showy plants, as Chrysanthemums, Salvias, tall Lobelias, Fuchsias, Gesneras, Belladonna and Guernsey Lilies, and many kinds of Amaryllis, may also be added, to set off the permanent occupants, and warm up the building by giving colour. A most useful conservatory plant is the recently-introduced *Heterocentrum roseum*, which, under good cultivation, flowers profusely at this season. A few things may be added from the stove, as *Hedychiums*, *Crinums*, and *Begonias*, as they come into bloom. Fires will now be necessary, and should be stirred up briskly on damp mornings to dry the atmosphere after watering and cleaning out, giving air at the same time. Night temperature 45°.

Dahlias.—These should, if not already done, be taken up and stored for wintering the first time the soil is tolerably dry; dry them thoroughly, with some of the soil about them. Seed will require much attention to prevent its rotting in the pod.

Flower Garden.—Continue to place under protection half hardy plants taken up from the garden, as room can be found for them. Those who have an orchard house will find it invaluable for wintering many things in this way, which suffer more from damp than cold. Give the recently struck cuttings as much light and air as you can, to get them established and hardened off before winter, or they will most likely fog off. Scarlet Geranium cuttings may yet be put in, placing the pots with the cuttings on the shelves of any house where they can be kept dry. Those who are deficient of room for wintering Scarlet Geraniums may keep them in any dry out-house open to the south, that the plants may get what sun there is till sharp frosts set in, when any place secure from frost, but dry, will keep them for a long time uninjured; give them no water whatever, nor allow the rain to fall on them. The great secret is getting the wood hard and well ripened; and then when kept dry they will break freely on the return of warm weather. The beds of the flower garden, as the summer plants are cleared away,

should either be neatly raked over or the beds filled with dwarf shrubs, bulbs, early flowering herbaceous plants, and annuals previously sown for this purpose ; to make a display in spring. A very nice arrangement of colours may be made with Crocuses and early Tulips, followed by Narcissus, later Tulips, Hyacinths, Scillas, and Anemones, &c.

Forcing Ground.—Mushroom beds should now be made for winter. Where there is a large family to supply, Seakale and Rhubarb should be started at once, that the forcing may be slow—always attended with the best success. Where space is not an object, and there is plenty of leaves or stable manure, we prefer the old plan of covering the crowns with pots, and then forcing by covering with leaves, or litter and leaves mixed. In other respects, Rhubarb roots may be taken up, potted, and introduced wherever there is a slight heat ; and Kale may be successfully forced by packing the roots closely together in a common frame or pit, and working them by linings ; the crowns should be covered with a dry material to blanch them. Fill a pit or frame with Asparagus roots (good three or four year old plants) over a gentle bottom heat, when Grass is wanted in November.

Hard-wooded Plants will now be under glass ; water only when the soil in the pots becomes dry, and then thoroughly ; give air on all opportunities both day and night in mild weather, and set the plants sufficiently wide apart to prevent drawing, and also to preserve the foliage healthy down to the edge of the pots. Any Heaths affected with mildew should be dusted with sulphur, or washed with a weak solution of the Gishurst compound.

Hardy Fruit.—Go over the Apples and Pears stored away, and remove decayed specimens. Keep the room cool, and ventilate pretty freely until the sweating process is over, after which a rather close, dry, and cool atmosphere is best adapted for keeping fruit. Now is the best time for planting fruit trees, and where additions are wanted, or new borders made, no time should be lost in getting the materials together, and the trees on the ground. Pruning may commence at once with such trees as have lost their leaves ; and Peaches, Nectarines, and Apricots should have their ripe leaves removed with a slight besom, to admit the sun and air to the wood.

Hollyhocks.—A cold pit or frame is sufficient to winter well established plants if kept near the glass, but they should have sufficient pot-room, and not over watered. Those now striking will be liable to damp off from over moisture, which must be guarded against.

Kitchen Garden.—Look to your Potatoes and other roots stored away ; they are decaying very fast with us though pitted quite dry. Take up Endive in quantities on the approach of frost, and fill empty frames, sheds, or other places where you can keep it dry and preserve it from frost. Lettuce must have the protection of glass to get it good through the winter. Earth up Artichokes to preserve the crowns from frost ; and Parsley should be hooped over to be ready for protecting when required. Give plenty of air to Cauliflowers, Lettuces, and Radishes under hand-glasses, and see that a quantity of the two former are planted in sheltered places for further protection in severe frost. A sowing of Peas for the first crop may be made towards the middle of

the month, and at the same time a few rows of Mazagan Beans may be planted. Trench and ridge up vacant ground to take the weather.

Peach House.—The sashes may be placed on the earliest house when Peaches are required in May. Dress over the trees and train them regularly, and surface over the border with fresh loam. Fires need not be applied for a fortnight, and then only by day, as artificial heat to a small extent will be required.

Pelargoniums.—These will require much care to prevent their getting drawn, as many of them are growing freely, and therefore will want plenty of air at all favourable opportunities. Make fires only in frosty and very damp weather, both of which may now be anticipated. If previous directions have been attended to with early specimen plants, little can be done this month, except with the training of the young shoots; let them be tied out carefully, as it will greatly benefit and strengthen them. Avoid crowding the plants; let them have all the room that can possibly be spared. Be careful in watering at this season; only water those that are really dry, and avoid wetting the foliage. Continue to repot any plants that require it, and also stop young struck plants. Cuttings will strike freely now in heat, and withal attend strictly to cleanliness.

Pinery.—Plants swelling their fruit should be supplied with a moist warm atmosphere, more especially by day. When the sun is bright close the house early, but allow air to be given freely soon in the mornings when the weather is mild; the night temperature may be 65°, with a steady bottom heat. Successions should now be kept drier, but do not allow either the bottom or top heat to fall below the point which would check the plants. 60° and 80° are safe points for the night and day thermometers to range, and the bottom heat should not be much less than 85°.

Pinks.—If not already done, a few pairs should be potted up, to fill vacancies in beds that may occur during the winter, as well as some of the more tender growing kinds, to ensure them against eventualities. A small bed of such planted out in spring will be very useful, and will in some seasons produce the finest flowers.

Tulips.—Complete planting without delay, the beds having been prepared as previously recommended. The beds may remain open and unprotected till after Christmas.

Vinery.—If, as directed last month, the Vines in the early house have been dressed, border covered, &c., gentle fires may be lighted on dull cold days, so as to keep the temperature to 45° by night and 60° by day, with a pretty liberal admission of air. We prefer the border being covered only with leaves, Fern, or dry straw, and afterwards coated over with coarse mortar or concrete to exclude wet, to putting fermenting dung on the borders. Keep a dry atmosphere to ripe Grapes, and remove all superfluous leaves to admit the air to the bunches. In wet weather let the fires be lighted in the morning to dry the air of the house, and let go out in the evenings, air at all times being admitted.



Geraniums.

1. *Lord Clyde.* (Foster)
2. *King of Purples.* (Turner)

Plate 158.

PELARGONIUMS.

(PLATE 158.)

OUR present illustration consists of the two leading Pelargoniums of the season, both having been first in their respective classes at the Crystal Palace and other exhibitions. Our plate faithfully represents their colour and form, but to this we can add the very satisfactory requisite to their becoming general favourites, viz., that they are free bloomers, fine growers, and of easy culture. The very noble flower, raised by E. Foster, Esq., has that depth of rich colour so well known in many of Mr. Foster's seedlings, but with lower petals such as were never before produced at Clewer. It is without doubt the finest Pelargonium of any class that has yet come under our observation. King of Purples is also new in colour, and one of the best of this popular class, the spotted varieties.

We have been favoured with the following observations from a most successful grower, and an old and highly respected contributor :—

It is some time since your readers were favoured with any remarks upon the new Pelargoniums which have been annually sent forth into the floricultural world, to be criticized and admired, and, as I do not possess the data for a full detail of all the new flowers that have appeared since your last remarks, I shall not therefore attempt a description of them, yet there are several that have been exhibited during the past season that are so decidedly worthy of notice, and which must give satisfaction to all who are fortunate enough to obtain them, that I believe your readers will be glad to have their attention directed to them. I think I am not far wrong, if wrong at all, in saying that at no period has the improvement of the Pelargonium been more marked and decided than in the new flowers of the last two or three years, and this improvement has not been confined to one particular point, but has comprised general freedom of bloom, size and substance, form and colour, all which are leading points. The new flowers are strikingly fine, nor is their increased variety less remarkable. Some years ago there was but one class of Pelargoniums (leaving out the Cape species), and now we have three, with distinctions very strongly marked, viz., the old style, the spotted, and the fancies, and each of these classes contains numerous varieties.

The first flower that attracted my attention this season was Festus, exhibited by Mr. Turner at Regent's Park, in May; the individual flowers and also the trusses are large, bold, smooth, and constant, and the general habit excellent; a most desirable exhibition plant, and likely to be a favourite for some time.

- Monarch, very large, fine in form, and constant ; a truly noble flower ; I think second to none that I have seen
- Leviathan, a purple crimson, with black top petals, large, very free and fine
- Lady Canning, similar in colour to the old favourite Rosamond, but brighter and very much larger
- Ariel, white, with rich rosy carmine top petals, good form, and fair size
- Bride, white, with blotch of bright rose on the top petals, very pretty, very free and lively, of medium size
- Empress Eugenie, white, with carmine spot on the top petals, a dwarf habit, free and beautiful, the white very pure
- Candidate, in colouring similar to Wonderful, rather more orange, very fine and free, remarkably smooth on the edge (not a strong grower)
- Sir Colin Campbell, white centre, with remarkably rich deep colouring, profuse bloomer, rather less in size than some in this list

These are almost decided improvements in the old style of Pelargoniums, and the list might be much extended by the insertion of very interesting flowers, such as Desdemona, The Belle, Etna, Richard Benyon, Rajah, Brilliant, Sunset, &c.

In spotted varieties also there is a manifest advance, as in Peacock, Osiris, and others, and we are told that the old favourite, Sanspareil, is to give place to Beadsman ; we shall see ; it must have many good properties to drive that old favourite from the field. Many of the new flowers in this class are striking and very effective in colouring, and they are now sufficiently numerous to be shown as a distinct class, and should be made ineligible for the other classes.

I have purposely been silent upon the new flowers going out for the first time this autumn, not having seen sufficient of some of them to speak decidedly, but, of some that I have seen, I have hopes that they will be found on trial worthy to be placed besides those I have described. It is perhaps hardly necessary to say anything as to the culture of this favourite and easily managed flower, but I would just venture to recommend any of your readers whose plants may be backward in the spring, to water them once a week with a solution of sheep's dung ; they will, I think, be benefited both as regards foliage and bloom.

DELTA.

WHAT CAN BE DONE WITH TIFFANY?

It now and then happens that the gardening world is all at once startled from its propriety by the exhibition of some marvellous invention, or instances of culture which surprise everybody for the time, and afford a fertile theme for praise or censure, as individuals feel disposed to go for, or against the novelty. We well remember the time when the late Mr. Wilmot, of Isleworth, was going to astonish Covent Garden Market by sending there first-class Grapes in May, which he was going to produce with the aid of "The Arnott Stove," at a cost of somewhere about 1s. 6d. per lb. ; then "Polmaise" was going to revolutionise the entire system of heating forcing houses, and an atmosphere unequalled by all the appliances of steam and hot water was to be produced, wherein the finest fruits of the world might be grown to

perfection, with no more expensive materials than a "fifty shilling stove, a hole in the wall, and a wet blanket;" and even this was stated, by a great authority at the time, to be costly for many descriptions of forcing houses, "which," it was said, "might be very well warmed by an old-fashioned brick oven, heated by faggots burnt in the inside!" Then followed the astounding information by "*Mirabile Dictu*," that French gardeners were growing Queen Pines in poor sandy peat, from 8 to 10 lbs. each, in ordinary brick pits without fire-heat. We might follow up the enumeration much further by alluding to the Bieton system of growing Pines, "the most exquisite ever tasted," in the open ground! or to the splendid Grapes grown at Isleworth, in clinkers and gravel, as well as to other eccentricities of gardening, were we not reminded of the notice which heads our article, "What can be done with Tiffany."

We have raked up these now almost forgotten wonders with no malevolent feeling, for without a certain amount of enthusiasm gardening would sink below mediocrity. Arnott's stove answered well for certain purposes, although it was a misapplication in forcing houses; Polmaise was a grand idea, scientifically correct, but impracticable to carry out; the Meudon system of Pine growing has simplified our practice, and has produced, at Frogmore, results even more wonderful than the 8 lb. Queens at Meudon.* In fact, these innovations on the usual routine of gardening are strongly conducive to the progress of the art, by way of showing what may be effected, and so with the simple material called "Tiffany."

We now have to inform our readers, that during a late ramble through the country, we "*looked in*" at Mr. Standish's nursery, at Bagshot, a wonderful dépôt for Rhododendrons, Mahonias, Berberis, Conifers, and the like, which are there raised by thousands, for the future decoration of the scores of mansions and villas which are springing into existence all over the country. On passing through the home grounds, Mr. Standish introduced us to a novel erection which he was pleased to call his "*Tiffany-house*," and which we must briefly describe; first let us premise that all who have gardens, and who wish to preserve their fruit-blossoms from the frosts of spring, or their plants under glass from being scorched by a July sun, have doubtless heard of Mr. Shaw, of Manchester, and his famous "*Tiffany*," a new kind of shading invented and introduced to the public by that gentleman. This material Mr. Standish has applied to a most useful purpose in his nursery, and as its application (so it appears to us), may be extended to a great variety of objects in connexion with gardening, we very gladly avail ourselves of his permission to publish his experience in the matter.

The spring is always a critical period with those who are propagating largely hardy and half hardy plants. The modern system of striking, grafting, and inarching, does not, as of old, take several weeks to accomplish. Heat and moisture are brought to bear very largely on the operation, to produce a quick union between the scion and stock, and, as a consequence, the plants are in a highly excited state. The

* We intend to give a notice of the extraordinary growth of the Pine in the Royal Gardens in our next.

process of hardening these plants off is the next step, which can only be done under glass, and even when removed from this protection many plants do not bear well full exposure to the open air ; add to this the number of seedling plants, which also require some degree of protection, and we shall perceive that it was necessity which, in some measure, compelled Mr. Standish to bring this material into use.

The "*Tiffany House*" has a framework of stout Larch poles, 10 ft. high, which are placed at right angles 7 or 8 feet apart. The poles stand about 7 feet out of the ground, and are unbarked, but with their tops cut square and chiselled out with a gouge to receive the imposts, which are formed of rather smaller poles sawn through the middle, and nailed to the uprights round side downwards ; cross-pieces are also introduced to form a stout frame, over which the Tiffany is stretched, and nailed on with list. During the early part of the season the sides are also covered with the same material, but as the weather becomes warmer this is removed to admit more air underneath. The rain, as it falls on the surface of the flat roof, of course finds its way inside, but in no way to injure anything beneath, as it gradually filters through. Mr. Standish's house, we should say, is 90 feet long, about 60 feet wide, and 7 feet high ; and underneath, arranged in beds, were a large number of choice plants, exhibiting a degree of health and luxuriance never before attained by similar plants, even under glass. Camellias, Rhododendrons of all kinds, Berberis nepalensis, Bealii, and japonica, were growing most luxuriantly, as well as the new Forget-me-not, and a host of other things Mr. Standish had purposely placed under this protection, to try how far partial shade would suit them. We were much surprised to find that Roses, which proverbially delight in sunshine, were producing blooms of immense size and of most intense colour, and the dark green aspect of the leaves clearly indicated that the amount of light and atmospheric conditions were entirely suited to the habit of the plants.

Mr. Standish is sanguine that he can grow Grapes and Peaches in a house of this description, and next year intends trying the experiment of fruit culture under Tiffany on a considerable scale. We shall watch the experiment with great interest ; and whether he will succeed or not with fruits will be recorded ; we have no hesitation in asserting, however, that it forms a superior medium to glass for growing many kinds of plants under during the summer, and that its general application for that purpose will soon follow. Camellias, Rhododendrons, Azaleas, Epacris, Heaths, and hard-wooded plants generally, as well as greenhouse Ferns, are a few genera which occur to us which would grow luxuriantly under a Tiffany roof, and it will also form the best roof material for retarding plants in bloom, in which case a double roof would be preferable.

As regards the form of roof Mr. Standish has adopted, a ridge and furrow one would perhaps in some respects be preferable ; but the mode of construction is so simple, and the material so cheap, that the shape of the roof is of but little importance, provided it is not carried too high above the plants. We must defer noticing the application of Tiffany as a fruit protector to our next number.

FINE WALL ROSE TREES IN DORSETSHIRE.

THE following account may perhaps interest the readers of the *Florist*:—

First: Jaune of Smith or Yellow Tea Noisette; this tree I saw two years ago at my friend's, the Rev. C. Sawbridge, at Almer Rectory; it was then in fine and abundant bloom. The following is his account of it:—"My famous Rose tree is the Yellow Tea, styled Jaune of Smith; its blooms are pale yellow, and its buds are beautiful. I brought it from my paternal home in Kent, some 25 years ago—a mere cutting from a small Rose growing against the house; and I soon found that the offspring was likely to surpass its parent in every respect, and that the removal to Dorsetshire was most beneficial. I called it the Magnolia Rose, because its leaves were so large, and its buds almost rivalled the blossoms of the Magnolia. For many years it continued to bloom and be greatly admired by my neighbours when calling at the rectory, but, of late years, it has fallen off in appearance, its buds have decreased, there have been fewer of them, and the leaves are nothing to what they once were. Last winter I had it cut about all over, so that only straight branches remained, and therefore I could hardly expect that it would have many blooms this summer, but it has put forth plenty of young wood, and I hope it may do well again next year. The space allotted to it is 8 feet wide and $9\frac{1}{2}$ feet high; but what it would have been, if allowed more space, I cannot say. It is evidently a delicate Rose to manage. I have often given it away to different persons, but it has never thrived." [My *Smithii* mentioned in the *Florist* was struck from this tree, and which, though well rooted, lived here only six weeks. W. F. R.]

Secondly: The Deans Court Lamarque. This fine old tree I have not lately seen, but it is a noted tree. It is growing at Deans Court, Wimborne, now occupied by Major Portman, Lord Portman's brother; and the following account has been kindly sent to me by Mrs. Portman:—"It was planted in 1843 by Mr. John Hanham, before he went to India; it is therefore 16 years old; it is 20 feet high and $9\frac{1}{2}$ feet wide; it is a bud on a Briar; it blossoms twice a year luxuriantly, but this year its promise of abundant blooms was checked by a severe frost; its autumn bloom was not so fine as usual, the reason is, I think, that there is too much old wood; it requires fresh training, cutting out of the old wood, and replenishing with young shoots; its blossoms are lovely, and sometimes there are as many as ten on one stalk; it is slightly tinged with yellow inside, and is very sweet."

Thirdly: The Rev. H. Austen's five trees at Keynstone:—These trees face the east (observe that), and are all on their own roots, except Ophirie, which the gardener says, he thinks, is on Manetti. I have reviewed and carefully measured these trees, and the following is the account of them, as you face the house, built about 12 years ago. They have only 15 inches width of friable soil, which is edged with 6 inches of Grass, and then their roots run under a wide gravel walk.—No. 1. The Cloth of Gold, six years old, on its own roots, struck from No. 4, has seven stout main leaders at the base. Its height is $16\frac{1}{2}$ feet,

its breadth is 6 feet.—No. 2. Ophirie, 12 years old, is 15 feet high and $7\frac{1}{2}$ feet wide, with leaders so beautifully covered that I could not count even the base leaders; the gardener thinks there are about 10. This is the best wall Rose I have ever seen, because its leaves and branches cover the leaders from the top to the bottom of the tree; for these attributes Madame Plantier is the best pole Rose that I ever saw; when properly managed, she presents to the eye nothing but foliage and flowers.—No. 3. Solfaterre, 12 years old, the parent of No. 5, is 15 feet high and 6 feet wide, and has 9 stout leaders at the base.—No. 4. The Cloth of Gold was planted by Gill, of Blandford, 12 years ago, is 17 feet high by 6 feet wide; it is very stout in wood, and luxuriant all over; the measured circumference of the root, close to the ground, is 17 inches; this beautiful tree has, at the base, 18 main leaders; like Smithii, it requires more room; this Cloth is, for training and general appearance, though not for altitude and extensive range, as you shall see presently, the best Cloth of Gold I ever yet saw.—No. 5. Solfaterre, six years old, was struck from No. 3, and is 14 feet high by 6 feet wide, and has six main leaders at the base.—Thus there are two Cloths of Gold and two Solfaterres on their own roots, while Ophirie is on Manetti. I asked the gardener, “Do you cut these Cloths of Gold and the other wall trees?” He said, “I cut them all hard every year. I cut out of No. 4 faggots, last year, from the top of the tree, but cut sparingly at the base and centre.” You will hear presently what Mrs. Fowler says on the subject of cutting. In the centre of the house is a fine Magnolia, $24\frac{1}{2}$ feet high by $15\frac{1}{2}$ feet wide, whose beautiful blooms I have seen. These six trees, with an Austrian Briar and Persian Yellow, well trained, Red Currant fashion, decorate the frontage of Keynstone Rectory; and, glorious in the season, to use Mr. Milne’s words, is the display of “floral grace.” At the back of the house are two fine trees of Jaune Desprez and Bonaparte. There is one tree there which, though not a wall tree, I cannot pass over. It is a large standard of the Triumph of Milton, about 18 years old, measuring in diameter over 14 feet; in the season, it is a blaze of crimson glory. Should any amateur, travelling this way, think it worth his while to call on me, I will show him my neighbour’s trees, my Solfaterre, which is $13\frac{1}{2}$ feet high by 33 feet 5 inches wide, and also a fine tree of sweet-scented Jaune Desprez. I need hardly say that there will be a bed and knife and fork; I now come to speak of three Cloths of Gold, which, at Mr. Ingram’s request, I went to see on the 10th of October, and which I have now revisited, with a view to correct measurement; No. 3 is, I think, a most wonderful tree.

Fourthly, then, we proceed to describe Mr. and Mrs. Fowler’s Cloths of Gold, at Kingston, near Blandford. No. 1 Cloth of Gold, on a 4-foot Briar, independent of a wall, planted by Mr. Gill, of Blandford, in 1849, was then a young tree, and has never since been moved. It is trained down to hoop wire, umbrella fashion, and has thrown out this year three branches, each of which is 10 feet long, and one 13 feet.—No. 2 Cloth of Gold was planted four years ago, on a 4-foot Briar, against the east gable end of the house, with a wall to the south of

it; its aspect is therefore north-east, in an inclosed garden. It has much overswollen the Briar at the point of union. It is $5\frac{1}{2}$ inches in girth at 7 feet high, and is 27 feet 7 inches in full height. It is in the shape of a fan, and is a very pretty tree. Its top branch forms an arcade with No. 3. Between these two is a Glou Morceau Pear, *alias* Delices des Hardenpont, from which I have this day eaten some excellent fruit. It is a pity that either No. 2 or 3 had not been planted where this Pear stands.—No. 3 Cloth of Gold is a very fine tree, the loftiest and most extensive of any Cloth of Gold that I have yet seen. This tree is on a 1-foot Briar, which it has much overswollen, at the north-east corner of the gable, opposite to No. 2. It was planted (a very small plant), by Mr. Gill, in 1849. It is in an inclosed garden, with a draughty door close to it. The tree has been trained with a view to avoid Glou Morceau. It has two main stems, and out of one of these is a long rider. The two stems are in girth, at 12 feet from the ground, $5\frac{1}{2}$ inches; the main body is (east aspect) 36 feet high. A long branch runs west against the north side of the house, 31 feet in length, and out of this branch another, 25 feet 2 inches, runs under the garden wall thatch, northwards. The growth of the terminal shoot of this branch, this year, is 9 feet 4 inches. On the 10th of October, at the top of the 36-feet department, I saw sixty fine buds.

With regard to cutting the Cloth of Gold, Mrs. Fowler told me that the effect was, that she got lots of long wood and less flowers. This I believe to be the case with most Noisettes, Hybrid Chinas, and Hybrid Bourbons. Finally, observe that four of these Cloths of Gold face the east. These are the finest and best wall trees known to me.

As I am "in the prose line," I must leave it to "Punch," who is at Rushton, to enliven the article with a little poetry, in which, it is probable, he will express himself "rather freely" at SOME (!!) people's expense.

"FIRST STAVE.

"Five glorious Cloths of Gold, three Solfaterres,
No amateur to visit long defers.
Ophirie, too, and Jaune both wanton here,
In Dorset, and Lamarque is very near,
With lengthen'd branches reaching to the skies,
A noble sight to gladden human eyes.
Punch is, as all know, a funny fellow,
Hates the Austrian, loves the Persian Yellow,
Loves best of all the glorious Cloth of Gold,
Whose gilded glory never can be told.

"SECOND STAVE.

"Come, then, to Rushton, ply your knife and fork;
'Twill amply pay you for your journey's work.
Gloëde said, 'I ne'er felt bliss before'
(Forgetting nuptial bliss and wedding lore);
'I'll come in June, and visit here once more.'
R. hopes he will. He'll gladden all our hearts,
And tuck in English beef and Rasp'ry tarts.
One thing he'll see, which made *Punch* vacant stare,
Nimrod's not Eleanor, much less Adair.

Pomologists who live in London smoke,
Sent through the floral world this cruel joke.
Where'er *Punch* goes, most popular of men,
Loud is the cry, 'Here's Nimrod come again !'
If taking ship, *Punch* braves the mighty main,
The sailors cry, 'Here's Nimrod come again !'

'Tis Nimrod here, 'tis Nimrod there,

'Tis Nimrod always, everywhere !

No wonder the nations should at *Punch* stare,
Don't all these judges (connoisseur's the name)
See that a horse and hen are quite the same ?

'Tween pumps and barrows *Punch* more likeness sees
Than is between distinctive Strawberries.

Punch thinks, the way t' improve a critic's taste,
Is with the "cat," his body well to baste.

This nostrum, well applied, will fill the air

With the quick cry that Nimrod's not Adair !

" LAST STAVE.

" The ' Wizard of the North ' is come in Plate,
Who sent it, R., *Punch* really cannot state;
R. thanks the sender, hopes he'll see it here
In gilded frame as well as China ware ;
Here's Oscar, too, a noble plant and print,
Buy it at Slough, you'll bless *Punch* for the hint.

Good bye Fragararians,

Adieu Rosarians.

The doctors cannot differ more,

You're all gone mad, I'm certain sure.

Thus writes shrewd *Punch*, despising words well known,

' Who lives in glass should never throw a stone ;'

Asserts he still, asserts with living breath,

The British Queen has twice saved *Punch* from death ;

While his breath lasts he'll fill the London air,

In crying loudly, ' Nimrod's not Adair ! ' "

W. F. RADCLYFFE.

Rushton, November 16.

NOTES ON THE MONTH.

THE frost of the third week in October was followed by violent storms and cold weather (the rains in this district having been very heavy), indicating considerable electrical action in the atmosphere. On November 14, 15, and 16, sharp frosts again occurred, the thermometer in some situations marking 12° of frost. Ice was abundant, and the effect on vegetation, though not so striking as what resulted from the frosts of October, has put the finishing stroke on many garden plants. Even hardy Borecoles have suffered, to say nothing of Broccoli, Cabbages, and Cauliflowers, which in many places have the appearance of having been parboiled ; while Lettuces, Endive, Parsley, &c., are killed entirely ; this destruction will cause much annoyance to gardeners, whose means of supply have thus been unexpectedly cut short. Nurserymen have not escaped. Many plants which the warmth of the season had forced into a vigorous autumn growth have had their young wood

killed back, and, with the loss of the leaders, will be thrown back a season, and in some cases very valuable plants, considered hardy, have been much injured. These early frosts have brought down the foliage of trees rapidly, and during this autumn we have experienced none of those delightful transitions of colour in the decaying foliage of the Beech, Oak, and Maple, which in other seasons, when their decay has been gradual, have beautified the landscape.

The rapid increase of the Pomological Society, and the interesting reports of its proceedings, are exciting much interest. The exertions of the committee in classifying and reporting on the fruits submitted to them at their meetings merit the thanks of fruit growers, and have already given great impulse to fruit growing. But they evidently want local secretaries in each fruit-producing district, and more correspondence on fruit matters; and it is thought, even by some of their own members, that a jury of some 20 or 30 individuals, some of whom are but partially informed on the subject, is not the best medium for getting at a right decision on the fruits submitted. Would it not be better to elect proper censors, and let them award the prizes, instead of putting the matter to the vote of the whole meeting; and, as the number of fruits to be adjudicated upon is now large, the censorship might take place the day before, or on the morning previous to the meeting, at which a short lecture and discussion might take place on the subjects present. We name this with the most friendly feeling towards the society. The fruit and floral committees of the Horticultural Society are also proceeding with zeal and vigour. We shall expect much from these committees, more especially now that their means of doing good will be enlarged, through the general prosperity of the main body. The publication of the monthly proceedings is a step in the right direction, and we are glad to notice that experiments on vegetables have not been given up.

G. F.

MR. McEWEN'S WORK ON THE PEACH.

YOUR favourable notice of this, at page 315, has surprised not only myself but others of your readers, who, having read over the work, fail to discover anything either new in practice or sound in principle in its pages. To me, it appears most unfortunate for Mr. Cox, that he should have made any additions at all to Mr. McEwen's manuscript, for, on reading the work, we find that nearly in every instance where the editor's notes are inserted, they contradict the original matter. Mr. Cox's labour in the matter may have been one of love (as he informs us in the preface was the case), and it was no doubt a congenial one; but the public now-a-days expect to get some information when they buy a new work, particularly when two such practical names as those of the author and editor are attached to it.

At page 7 we are told that *all outside borders* should be repeatedly forked over in hot sunny weather; and at page 18—"That when the weather is dry, and evaporation excessive, I frequently tread over open

soils, to give them a fixedness and prevent waterings. . . . This treading in many cases is preferable to mulching, inasmuch as it does not intercept the sun's rays from the border."

As regards soils for borders, rich unctuous loam, *free of manure*, is very properly recommended by the author (page 5); but afterwards, at page 9, in introducing the opinion of a "friend" on Peach culture, and which the author endorses, it is stated, "But to return to the Peach; after pruning, cleaning, dressing, and tying the trees, and slightly loosening the surface soil, I have, for the last few years, covered the borders with *fresh cow dung*, to the depth of two or three inches, and covered that with a thin coat of soil;" and then he goes on to say, "The trees do not want this until the end of May, and by that time it is sufficiently decayed for them to enter it freely." Now, what must be the state of a Peach border, which has had an annual covering of two or three inches of cow dung, after half-a-dozen years; we may imagine pretty correctly, if the trees could stand the rich dressing so long without dying of gum and canker. At page 12, in recommending standard trees to dwarfs for walls, it is stated that, "The atmosphere, so near the surface, is always some degrees colder than four feet up the wall;" in my simplicity, I thought *that* the warmest part of the wall if unshaded. I say nothing of whether dwarfs or standards are the most preferable trees to plant, but merely differ from the reasons given why dwarfs should be given up. I might quote other passages, which, if not objectionable, yet produce no information satisfactory to the reader; and, in submitting the above to you, as you have recommended the work, merely ask how you can reconcile such advice with the contradictions contained in the work.

J. B.

[We are in duty bound to give publicity to our correspondent's remarks. The work in question was reviewed by one of our contributors without our having read it ourselves, and is certainly open to some of the objections named by our correspondent; but clever practical men are not always clever writers, and such may be the case with the present work.—Ed. *Florist*.]

ROSA DEVONIENSIS.

I AM so much a lover of my country as to be glad of the discussion that has arisen on the origin of this Rose, because such points are only settled satisfactorily where there is discussion, and that before it is too late, before the facts are forgotten, or the actors passed from the scene. Whether any more evidence will be forthcoming I cannot tell, nor am I anxious that there should be, though I shall gladly receive it if there is. The object of this communication is to show that, if not, the common notion of its being an English Rose must be accepted as the true one; and that though no doubt it would be desirable that Mr. Foster or his representative should state positively that the plant sold to Messrs. Lucombe, Pince, & Co., was a seedling, and thus supply the

only missing link, even then the moral evidence would hardly be stronger than it is now.

Accepting the illustration of a suit at law, it must be remembered that when the best evidence on any point is not procurable, the next best is admissible. Also that possession is nine points out of the ten, and, where possession is sought to be disturbed, the *onus probandi* lies on the plaintiff or disturber. And there will be no difficulty in showing that Mr. Foster's evidence, if not procurable, is amply supplied by what we have; that nothing has been adduced to shake the current belief that this fine Rose is a native of England. I at first intended to carry on the similitude used, and imitate the practice of the courts, but as it appeared on trial that the sifting of evidence necessarily led to the exposure of weak points, which might unconsciously cause a wound, I will confine myself to the strong ones, in favour of its English parentage.

Mr. Willcock's letter is accepted as true in its facts; the allegation is that the facts do not reach far enough, that they stop short at a material point, which mars their value, and that the plant he brought from Mr. Foster's might have been, and probably was, picked up by that gentleman in his wanderings; of which the thickness of the petal affords presumptive evidence. This, I believe, is all, and it will be found to be insufficient—indeed, it will show that the facts already obtained involve a moral certainty upon the point in which it has been alleged to be deficient.

First, however, it may be as well to state that Mr. Rivers, in his "Rose Amateur's Guide," page 138, 3rd edition, says nothing of its supposed French origin; for myself, I have never before heard any other than an English one given to it, and it has been so described, if I am not mistaken, in the pages of the *Florist*. And now let us examine the objections made to it, and to the sufficiency of Mr. Willcock's statement.

The thickness of petal in *Devoniensis* is said to be presumptive evidence against its English origin. Why? I know of no principle in the physiology of plants that would lead to this conclusion. If England were notorious for its dryness of climate, I could understand this, though I might not assent to it, but the cause intended, I imagine to be, not that, but its want of warmth. As this is the only Rose of note that we can pretend to, there are not instances to judge by comparison; but in Camellias, at any rate, the rule does not hold good; for in plants of that tribe, raised from seed ripened in England, there are some with petals as thick as any of those raised under the suns of France or Italy. I cannot therefore admit this to be presumptive evidence, even if there were room, as I contend there is not, for such presumptive evidence at all.

For now look at the alternative, if Mr. Willcock's supposition be judged erroneous, and the plant he took away were not a seedling raised by Mr. Foster, as they all supposed. Either it was a (French) seedling, or it was not; if it was, then you have to account for a French seedling Rose purchased at seedling price, and that in 1838 or thereabouts, certainly not less than 20 guineas, growing in the open ground, under a cottage window, till hawked for sale.

If it were not a seedling, but an ordinary dealer's plant, then you are in a greater difficulty still ; for if so, it must have been one of many of the same sort. Of these many, *this one only*, the Lieutenant's purchase, was named *Devoniensis*. Where, then, are all the others, and under what alias is the Rose we called *Devoniensis* to be procured ? *There is no such alias* in either France or England, or Mr. Rivers would have known of it in the seventeen or eighteen years that have elapsed since he first possessed it. No ! That which grew under the cottage window at Stoke Dammerel is the parent plant of all of this variety ; it was raised by Mr. Foster, and all honour to him for it ; and *Devoniensis* IS AN ENGLISH ROSE.

IOTA.

HORTICULTURAL SOCIETY.

THE *Gardeners' Chronicle* informs us that the £50,000 required to be raised to carry out the intended new garden at Kensington Gore have been subscribed, and that the lease of the ground, from the Royal Commissioners to the Horticultural Society, is now being executed. We may, therefore, presume that as soon as the council have possession of the ground, proceedings for the necessary erections will at once commence. On analysing the subscription list, we find that £39,000 are advanced by way of debentures, bearing interest at 5 per cent. ; that £1936 are by donations (£1500 of which have been subscribed by Her Majesty and the Prince Consort) ; and the remainder £9064 is made up by sums advanced for life memberships, nearly 300 having paid the compensation in lieu of annual subscriptions. Of course the greater part of this sum is subscribed by existing fellows, and will so far cause a deduction on the future annual revenue of the society.

We may now fairly conclude that the worst days of the society are past, and that a brighter era is before it ; and as good luck, like misfortunes, never comes alone, the society has had the good fortune to appoint one of the very best men in the country for their superintendent, Mr. George Eyles, the manager of the Crystal Palace and grounds at Sydenham. Mr. Eyles is a gentleman so well known to the gardening world, both as a practical man and successful manager of exhibitions, that nothing short of getting possession of the grounds at Kensington Gore could have happened so favourable to the society's future prosperity as this appointment.

We hear that Mr. Nesfield is to give the designs for the grounds, *by request*, but by "who or whom" we are not informed ; and we think the council's first proposition to advertise for designs would have been more complimentary to British landscape gardeners, and have given the council more scope in selection, than leaving the matter in the hands of one, however competent he may be. That Mr. Nesfield will produce a first-rate geometrical garden no one doubts ; but as competition is now generally admitted as a principle in designing public works, it appears to us that it would have been more conducive to the progress of taste in landscape gardening, had advantage been taken of the present

opportunity, by the council soliciting designs for laying-out the gardens from all who might have been disposed to have contributed plans for that object.

We are further informed that the "re-organization of the society upon a scale commensurate with the importance of the position it is now about to assume," is occupying the consideration of the council. We shall look forward with some anxiety to see what their plans to effect this are to be. That there is much more to be done than the forming a grand town garden at Kensington Gore, if horticulture is to be efficiently promoted, is a fact at once obvious to every practical mind; and believing, as we do, that the council are most anxious to give every support and encouragement to the important objects entrusted to their care, we can only hope that their deliberations may result in some liberal and comprehensive scheme, which shall unite the various sections of Pomology, Floriculture, and practical Horticulture into one vigorous body, with the power and means to develop and carry out each department of horticultural science and practice, in a manner worthy of the age and the high position already occupied by British gardening.

S.

HOMES OF THE FLORIST.—No. II.

BROOKE.

I CHANCED the other day, while waiting in the drawing-room of a friend, to take up a book entitled, I think, "The Floral Museum," published in the year 1837, and professing to give accurate figures of some of the best and newest florists' flowers of that day, and I think few things have impressed me more as to the rapid strides that in the last twenty years nearly every flower has made, than a comparison of those plates with the figures of the same classes of flowers in the last volume of the *Florist*. You take leave of the companion of your boyish days; he is a long and gawky youth, full of angles, and evidently blessed with appendages, in the shape of arms and legs, which are sadly in his way, a miserable downy appearance disfigures his upper lip, making him look rather like the callous brood of some unhappy bird—you pronounce him decidedly queer looking. He comes back after ten years' absence. How altered!—strong in limb, brawny with muscle, and "bearded like the pard." Can it possibly be the same? Yea! no mistake; but time and exercise and good feeding have made all the difference; no greater, however, than that between the florists' flowers of those days—"the days when I was young"—and the present. There were Dahlias, starry, reflexed, and formless; Pansies without a bit of eye, but just two or three *eyelashes*; Pinks jagged in the edge, irregular in form, and faint in colour; and, as I pondered on the matter, the first thing that I uttered, in a whisper, was—"Well, George Glenney was a courageous and clever fellow; when things were in this state he told us what they ought to be, gave diagrams, and defined properties, which were sneered

at and ridiculed, but an inch he would not budge. 'That is what they ought to be; nay, more, that is what they will be,' he said. And was he not right? He did well to make a high standard, and we must feel that we, as florists, owe him much. But what has all this rigmarole to say to Brooke? Just this; that there lives one of a class to whom we are still more indebted, who saw what was wanted, and who worked to obtain it. I mean the amateur florists; who, taking up some particular flower, have toiled earnestly to improve it, and well nigh brought it to perfection; and when I say that at Brooke resides George Holmes, Esq., the raiser of Cherub, Lollipop, Lord Palmerston, Flirt, and other Dahlias of first-rate quality, all who have grown that very fine autumn flower will readily recognise him as one to whom they are deeply indebted. I little imagined, when going to that parish to see my old friend the vicar, that I should meet with one there who is so well known in the floral world, or that I should have the pleasure of making his acquaintance.

Brooke is a small village, most pleasantly situate, about seven miles from Norwich, adjoining another well-known floral home, of which more by-and-bye—Shottisham; and is just one of those pretty bits of English rural scenery that we in vain seek for in any other country. Amongst the trees that enfold the village there is a plain old English country-house, standing back a little from the high road, and this is Brooke Lodge, the residence of Mr. Holmes. His garden is at the rear of it, and by no means large; the only florists' flowers that he cultivates are Dahlias and Roses. Of the former he does not at present grow more than thirty plants, and yet from them he has taken first prizes at the Crystal Palace, showing how well they must be done; the number, however, is too small to venture to exhibit from, and I believe Mr. H. will not again attempt it. I should say that he does not grow fancies, though, by one of those strange freaks which all seedling growers have often noticed, Flirt appeared in his seedling bed. Amongst the flowers which have had a trial this year, and which will be let out in the spring, are two very fine self-coloured ones, Scout and Bravo. The former is a crimson flower, two or three shades lighter than the Lord Palmerston of the same grower, medium size, with a fine high centre, and being of very dwarf habit and an extremely free bloomer, will, doubtless, become very valuable as a bedder, as it is superior in quality to anything in that class. The latter is a dark crimson purple (somewhat of the colour of Lord Bath), well up in the centre, and likely to be a constant flower. The seedling bed had been gradually weeded of all inferior flowers, and only half a dozen left for further trial. These will, next year, pass not only through the second ordeal of Mr. H.'s critical eye, but will be grown at Slough and there proved also, and by these means a tolerable amount of certainty as to the goodness of Mr. H.'s flowers is obtained, though even then it is impossible to be certain, some flowers will grow well in one situation and not in another, even a few miles off; *e.g.*, Fanny Keynes, which few can do well, blooms most beautifully at Shottisham, while Mr. H. cannot get it to succeed with him, although he has obtained plants from

the Shottisham roots, thinking perhaps there was something in the strain ; while one sees in Roses, Dahlias, Chrysanthemums, and indeed all florists' flowers, one particular sort which in some years will not do well anywhere, but in others succeeds everywhere.

Mr. Holmes is a believer in summer Roses, and I take it to be a refreshing thing now and then to meet with a man who will not run with the crowd, even though you differ from him. He is so because, he says, the finest Roses are to be found amongst them, as Coupe d'Hébé, Kean, Boule de Nanteuil, &c., and because he thinks the title of Hybrid Perpetual all stuff. "You get," is his contemptuous way of putting it, "a few Roses in the autumn, but they are all so much alike that you cannot distinguish the sorts, as they are all so out of character." It must be confessed that very often the prospect of an autumn bloom is very disappointing, but one does get a *second* bloom in August, when all the summer Roses are done, and if the year be fine, a third bloom from some sorts in September and October; while the summer-flowering varieties only give you their *one* bloom, fine though it be. Believing this, he takes care that his Roses are very fine, and certainly there is this advantage in them, that one obtains much finer plants and a larger quantity of bloom at once. Nothing can be more gorgeous while it lasts than a large tree of Paul Ricaut; and yet, with all this, I believe Mr. Rivers is right, when he says that summer Roses will, ere long, be amongst the things of the past; certainly, it will be so, as far as small gardens are concerned, and while our exhibitions show they are not discarded, unquestionably nine-tenths of the flowers shown do not belong to them. I saw here, for the first time, a new method of growing Peach trees, which Mr. H. is determined to give a fair trial to. It is of French origin. The growers around Paris say, that the utmost that they can obtain from Peach trees trained in the present fashion is 30 to the square yard, while according to the new plan, they say, they can obtain 50. It is this:—maiden trees are planted against the wall at about 16 to 18 inches apart, and are pruned to one shoot; this is carried straight up the wall, and when it reaches the top the tree is bent at an angle of 45° , and in this position nailed to the wall, all the shoots having been previously cut back to short spurs about 3 or 4 inches long; on these the blossoms appear and the fruit is produced. The advantage of bending them at this angle is, that—1st, a much greater length of stem is obtained than if trained in a straight line; and that, 2nd, it is likely to check a too vigorous growth, and thus promote fruiting. Mr. Holmes kindly informs me, that his knowledge of the plan was obtained from a friend who has resided for the last three or four years in France, and who had taken considerable pains, by visiting the gardens where the system was adopted at different times of the year, to learn all he could about it. Mr. H. slyly says, "It is only *hearsay* evidence, and therefore, perhaps, not worth much." I think it questionable whether, in this climate, these spurs will sufficiently ripen, or whether the fruit so produced will equal that grown under the old system; some of our most eminent fruit-growers, including Mr. Rivers, are decidedly against the plan, but it will be a matter of some satisfaction to know that it will be tried under the hand and eye of so experienced a floriculturist as Mr. Holmes.

All around Norwich there are many amateurs who devote a considerable portion of their time to the cultivation of flowers, and this is one of the advantages of having a good local flower-show ; it stimulates persons in the neighbourhood, they try accordingly to outvie one another, and thus the cause of floriculture is prospered ; and so a little village, which but for it would never have been heard of in the floricultural world, becomes celebrated as the home of an able and accomplished florist.

Deal, November.

D.

CULTURE OF THE GARDENIA OR CAPE JASMINE.

THERE is scarcely a flower so universally in demand as what used to be called the Cape Jasmine, but now named popularly in Covent Garden Market as Floridas, or, botanically speaking, *Gardenia florida*. Not only are its blooms of the purest white, but they are also most deliciously fragrant, and just the right size and form to make up into bouquets ; so that whether as a pot plant laden with its sweet scented flowers, or for cutting, either for glasses or bouquets, it is a general favourite ; add to this, when in good health and well grown, its dark glossy foliage is no mean accompaniment to its snow-white blossoms. But the plant, though by no means difficult to grow when once its treatment is understood, is but rarely seen in health or well bloomed.

To attempt to grow either *Gardenia florida*, *radicans*, *amœna*, or *Fortuni* as ordinary stove plants will end in failure ; they require, and must have, special treatment to do them well. This special treatment consists of a strong moist heat whilst they are growing and producing blooms, which, if accompanied with bottom heat for their roots, and plenty of ammoniacal vapour with the top heat, will grow them vigorously. To be short with the matter, *Gardenias* prefer a dung pit or pit with dung linings to an ordinary stove, and such being the case I shall now describe my own practice in cultivating them.

My pit is a common brick one, with a hot-water pipe running along the back ; a dung lining heats the front, the steam from which is admitted through the pigeon-holed walls. The plants are grown in pots, and are potted in three parts peat, and the rest sandy loam. The plants are plunged in a bed well filled with tree leaves, which afford them warmth during the growing season. Supposing the plants to have made their growth during the preceding season, and to have been kept comparatively cool and dry through the winter, we begin forcing in February by applying a lining of hot dung to the front, and allow the pipes to get warm behind them ; this soon excites them into growth, and causes the embryo buds which terminate each shoot to swell and develop themselves, and by April or May the blossoms commence opening, and continue for three or four months to produce a regular succession. The earliest formed shoots, which generally proceed from the axils of those leaves below the terminal buds, will have formed flower buds, which will open in July, and by these means

a succession of flowers is produced lasting from April till August or September. During this period I keep the night temperature of the pit at about 65° , and, as the plants are syringed and shut down early, while the sun has any power, the temperature in the afternoon of sunny days frequently rises to 90° . The dung lining is kept constantly worked and renewed, so as to throw its steam into the pit. The *Gardenia* appears to flourish best when supplied with dung steam, and I have never found the strongest dung vapour hurt the plants; on the contrary, the leaves become almost black with health, and the blooms produced are much larger when assisted by dung heat. Manure water is supplied regularly to the plants whilst blooming, and the black fly, when troublesome, is destroyed by fumigation. I now and then syringe the plants with diluted tobacco water, and when brown scale appears it is washed off with the same, with the addition of common brown soap-suds. About September I stop firing; the plants by this time being pretty well exhausted, I now take them all out of the pit, cut off the roots which have run through the holes of the pots, and, supposing the plants already in full-sized pots—15 or 18-inch—the old soil is shaken from the roots, which are reduced a little, and then potted afresh. The pit is next emptied and filled again with fresh leaves, and the plants plunged, placing them on bricks to prevent the roots again getting through. I now keep them close for a fortnight, until the roots have got hold again, when the dry treatment is commenced, the night temperature 60° and day 80° , with no more syringing or vapour than will suffice to keep the plants free from red spider. By these means the summer wood becomes matured and firm, new growths are arrested, and each shoot terminates in a flower bud, which only requires the application of heat in the spring to bring them out.

The winter treatment consists in keeping them rather dry, comparatively cool— 55° to 70° —with air on all occasions; and, as detailed above, when forcing commences, the bottom heat is turned up, and the pots set entirely in the leaves, without bricks, for the summer's growth. I allow them to root into the leaves as much as they please during the summer, as it helps them to produce blooms in abundance. By this plan hundreds of dozens of blooms are produced through the season, for which the largest plants are best adapted, and the blossoms as a matter of course are all cut. If the plants are intended to be used in bloom, much smaller plants will be required: from 6 or 8 to 10-inch pots are best, which will furnish nice sized plants. The treatment will be the same as detailed above, but as the blooms expand the plants should be removed from the pit to a damp stove for a few days, and then into an intermediate house, to gradually harden them before placing them in the conservatory or drawing room. As the blooms soon decay in a dry heat, a good succession should be kept up, that the plants may be frequently changed, as they only open a few flowers at a time. For rooms, however, *Gardenia radicans* and *amœna* are best suited, as they produce a good show of blossoms at one time, and as such are more valuable for pot plants, but very inferior to *florida* for cutting. Their treatment is precisely similar to what has been given for *G. florida*.

DELTA.

NOTES ON GRAPES FOR THE POMOLOGICAL SOCIETY.

I SEE a discussion has taken place among members of this society, as to an original St. Peter's Grape, the Black Prince being considered the old St. Peter's by many. I beg to say I fully remember the old St. Peter's Grape; it had round, or nearly round, berries, a very thin skin, and was of an intense blue black colour. The bunches set badly, and the berries were very liable to crack, which may have led to its being given up by growers; indeed, the present St. Peter's is a much more valuable Grape, and was very probably obtained from it. The Black Morocco is a coarse Grape, with immense berries, and requires artificial setting. Its synonyms are Wortley Hall Seedling and Le Cœur. Has anyone seen the true Black Tripoli, as described by Speechly? This was grown in Leicestershire thirty years back: berries of a dull black, very firm and sweet, and used to be the latest Grape to hang, keeping till March; the leaves were deeply cut, and the wood peculiar. The present Black Tripoli is a mere variety of the Black Hamburgh, with coarser flesh. Where, too, is the Flame-coloured Lombardy, with bunches of immense size; the Black Aleppo, with curiously striped berries, and the Poonah, and several other old kinds not generally known? The Society should look these up, if they are going to re-classify Grapes. The Damascus and Mogul are occasionally seen, but I have not seen the others for years. Where are Mr. Duncan's late Black Grapes, of which much was expected?

B.

AMERICAN STRAWBERRIES.

ARE American Strawberries worth growing? is a question often asked of us, and doubtless it is a question likely to interest many of our readers, more especially now that the Strawberry is a fruit of especial notice, which is manifest by the number of seedlings continually coming before the public.

There are now a great many varieties of American origin, and we may suppose that nine-tenths are worthless, judging from those we have grown, such as Hovey's Seedling, Ross's Phoenix, &c., which are considered by all American pomologists to be among the best in their collections. Now, those varieties are quite inferior to our class of Pine Strawberries, and Mr. Rivers, who is a good authority on the subject, having imported and proved a great many varieties of American fruit, says of the Strawberries, that they "do not seem to be adapted to our climate," and "the best of them is Hovey's Seedling, which grows most vigorously, but is a shy bearer, and of a brisk agreeable flavour, but not at all rich." And Downing, in a work on American fruit, says, "that Hovey's Seedling is undoubtedly the finest of all varieties for this country, and is well known throughout all the States, and has everywhere proved superior for all general purposes to any other large fruited kind." Although we have not grown or heard of an extraordinary American Strawberry finding its way across the Atlantic, it

is no reason why a good one should not some day come forth, that is when they have passed through many stages of improvement like our own, for, in all probability, our original stock, from whence all our present excellent varieties sprang, were natives of America, viz., the Old Scarlet and Carolina.

The Americans admit that some of the European varieties are superior to their own in size and flavour; still they say, "it is impossible to cultivate them with success, and that every recommendation of these foreign hermaphrodites, as productive and valuable for market purposes, is a *gross imposition*." They are also termed *fancy* varieties, and Dr. Bayne, who is said to be a "highly intelligent cultivator," says, "All English varieties have proved with me *worthless trash*." Now, I think, we may return the compliment with a good grace; the only difference is, that we could grow the American varieties in this country perhaps better than they can themselves, only for this simple reason, that they are not worth growing in comparison with our own kinds.

It seems evident that the climate of the States is not well suited to the successful cultivation of the Strawberry, and that none of our fine European varieties thrive so well as their own inferior strain of seedlings, which are mostly of the Old Scarlet class, and which nearly every grower in this country has ceased to cultivate, to give place to other kinds of superior merit.

Lately, we have received a descriptive catalogue of American Strawberries grown by W. R. Prince & Co., of Long Island, N.Y., which enumerates 153 varieties, among which number, 63 named kinds, and said to be *splendid*, are their own seedlings, and sent out by themselves; now if all are as good as they are represented, we may suppose them to be the most successful raisers of Strawberries in the world; and in all, their catalogue contains 109 varieties of American origin, and mostly all the European kinds are rejected, among which are all *Myatt's seedlings*; and, when we find that Nicholson's May Queen is described as of fine flavour, Omar Pacha very large and beautiful, and Sir C. Napier as a late kind, we cannot place much confidence in their display of judgment, or the correctness of the description of other kinds.

We have also before us a circular respecting a new Strawberry, named Downer's Prolific Seedling, from J. S. Downer, a nurseryman near Elkton, Todd County, K.Y. This wonderful Strawberry is reported to be "ten times as productive as any of the 100 varieties cultivated in that vicinity, averaging 123 berries to each single plant, and of course, in size and flavour, equal to any other variety in cultivation, and not to be sent out till 25,000 plants are ordered;" so Mr. Downer intends, if possible, to be on the safe side, as it is coming out at a very high price, accompanied with a deal of *puff*; and all who may think fit to favour Mr. Downer with an order will have to pay about £7 for 100 plants.

We must leave our readers to judge for themselves whether it is all gospel that our American friends set forth; as for ourselves, we think no American variety would improve our present collection.

J. P.

ROSA DEVONIENSIS.

FROM the remarks that have appeared in recent numbers of the *Florist*, respecting the above named Rose, and feeling very much interested in the same, I am induced to give you a genuine account of its history.

It was raised from seed by George Foster, Esq., of Outland House, about a mile distant from the towns of Devonport and Plymouth. It flowered for the first time in the summer of 1837, and was sold to Messrs. Lucombe, Pince, & Co., in 1840. It was a seedling from the Yellow China. Your Deal correspondent asserts that it was raised in France, and is not an English Rose; as has already been stated, I can only say that the assertion is untrue and unfounded. I may here remark that the raiser of this Rose was a gentleman well known to Mr. Pontey, the proprietor of the Plymouth Nursery, and also to Mr. Rendle, Plymouth, and it was Mr. Rendle who was in the habit of purchasing seedlings of the gentleman I have named. The Glory of Plymouth Dahlia was raised the same year as the Rose in question, and by the same gentleman.

In Rivers' "Rose Guide," at page 118, 5th edition, are the following remarks:—"Devoniensis, the only Tea-scented Rose ever raised in England, is still unrivalled." I should have thought that such an authority as Mr. Rivers would have been sufficient to have satisfied any one as to its being an English Rose, unless they have strong proof to the contrary.

JOHN CONNING,
Gardener, Royston, Herts.

ROSE RECOLLECTIONS.

IF your readers have not already heard sufficient about Roses and their management, perhaps it may interest some of them to know how this pet of flowers will succeed under more than ordinary difficulties of cultivation. I may premise that, three years ago, having commenced the formation of a new garden, I laid in a stock of Briars for budding in the following season, with the intention of removing the worked plants to their permanent places in the autumn of last year. Circumstances, however, supervened to prevent that intention being carried into effect, for, having to add several acres to the pleasure-ground, it became impossible to plant the Roses until such time as the final arrangements as to the shrubbery borders were complete. Now the order to "go ahead" in the addition to the pleasure-ground was not given until the 10th of March, at which time Rose-growers will say the Roses ought to have been planted and growing. I will grant that much, but at the same time endeavour to show that success is not incompatible with planting at a much later season; or, if you like, planting and transplanting several times in the course of a few weeks, and that at the worst end of the season for deciduous plants.

In anticipation of not being able to plant until very late, the Roses

were taken up in February, had their roots trimmed and the branches shortened one-third, and were laid in again. Towards the end of March they were growing freely, and hence a similar process had to be gone through, cutting off the growing part of the branches, and returning the roots to their temporary quarters. This, as was intended, was a second severe check, and a third had to be inflicted upon them at the end of April, at which time they were planted out for good. At this transplanting the Roses had formed a considerable quantity of young fibre; hence, as they were lifted, each plant had its roots placed in water, and so remained until the station was ready for it to be planted. In planting, the roots of each plant were washed in; that is, sufficient water was given to form a puddle, and so soon as the puddle had dried a little the soil was made firm and an inch or two of loose dry soil was placed around each plant, to prevent evaporation. Thus managed, but few of the plants sustained any material check at the final planting, and a large majority of them never received a second watering.

Now this experiment was not confined to a few plants—or a few dozens or hundreds—but extended to considerably over a thousand plants, and in that quantity I can safely say I did not lose a dozen, although the varieties comprised most of the finest Perpetuals in cultivation, and also Moss, Provence, and Hybrid Chinas. Of course the plants were late coming into bloom, but the autumn bloom has been very fine; the flowers, both in size, colour, and substance, being much finer than those exhibited by some of our crack west-country growers.

Few people, I think, transplant Roses, even in November, with greater success, most of the plants having made fine heads, and some of them—as Paxton, Madame de Trotter, Louise Peyronney, Chénédolé, &c.—having made shoots four to five feet long, and proportionately strong. Now the rationale of this system of management may be comprised in the following propositions:—

1.—A husbanding of the resources of the plant by gradual checks, which had the effect of preventing growth at the top, yet at the same time encouraged the formation of fibre.

2.—A prevention of the loss of the juices of the plant by depriving it of all the young shoots that could possibly be spared, and reducing the evaporating surface of those retained to the lower leaf only, all above that being cut away.

3.—Planting so as to prevent the roots being injured, and at a time when the soil was so warm that the fibres struck into it almost instantly.

I submit this as a system of planting which may be practised in certain emergencies, and in studying which the young gardener may find some facts that may aid him in subsequent experiments.

Orchardleigh Park, Frome.

W. P. A.

CHRYSANTHEMUMS.

EXHIBITIONS of these have been numerous this autumn. In short Chrysanthemums have now become so popular, both among amateur and gardeners, that few persons fond of flowers care to be without them

They possess so many interesting qualities, both as plants for decoration and as florist's flowers; and are, withal, so cheap to purchase and so easy of cultivation, that it is not to be wondered at that they have become favourites; and with care they will last for years. They may be made to produce blooms from the size of the wild Daisy to that of the largest Dahlia. They can be grown in 8-inch pots on one stem, in circles 5 feet across, and with from 2000 to 3000 well-shaped blooms, all out at one time; or in thumb pots, 6 inches in height, for windows; or they may be trained up on one stem, like standard Roses, pegged down in borders like Verbenas, or trained to stakes from 1 foot to 8 feet high. If the weather is mild, they will furnish the borders with blooms from October to Christmas. They make an exhibition of themselves with which few other flowers can compete. There is scarcely a town of any importance in England that has not had its exhibition of them this year, although this has been the most unfavourable autumn for them these forty years. They will grow in the most smoky and confined localities, where scarcely any other plant will exist; consequently they are, of all plants, deserving of notice. Having had some experience in cultivating them, and being an admirer of the plant from its usefulness for town gardens, I have taken the liberty of giving you my practical experience, together with that of many other successful cultivators, on the mode of growing them. So fond are the London amateurs of this flower, when they grow them for exhibition, that they make temporary frames to put them in, to keep them from the frost and cold, and get a quantity of rushlights and stick up all over the frames to burn all night, to keep out frost, as a substitute for fire in severe weather; others get inch zinc pipes to construct a small boiler, and put underneath it an oil lamp, to heat their little quart boiler; in fact, they try all kinds of cheap contrivances to prepare their little productions for the show table, and in all cases succeed; so much so, that they take the public by surprise when their plants are exhibited.

For cut blooms, the most successful growers cultivate in 12-inch pots. They take the old root, and, shaking off the mould, and selecting three or four of the strongest suckers, put them in 5-inch pots in silver sand and loam. In February they are placed in a cold frame till well rooted; they then give them another shift to a larger pot, with compost consisting of forest loam and turf chopped up small but not sifted, well decomposed cow-dung, and a little sand, with good drainage. When the weather becomes mild they are placed in a sheltered sunny spot, and each shoot secured to sticks, watered moderately, and when the plants are well rooted they are repotted into the blooming pot, not over watered through the summer, as they try to ripen the wood as soon as they can. They select the strongest branch to take the flower bud from, never selecting the first bud, but trust to the third where the plant is very strong, which shows itself in August. All side shoots are taken off after they are an inch long, except the two or three leaders that are kept to take the flower buds from. When the bud is taken all other laterals are removed, and a rough turfy top dressing is given to keep the roots from being exposed to sun and air. Liquid manures

are then supplied freely and often, but not strong; cow, sheep, horse, rabbits', or fowls' dung are the principal manures. In October the plants are taken into houses or placed under canvas to keep the cold winds and wet off them. As the blooms begin to expand, they use tweezers to take out any deformed petals, and extract all florets between each petal; if the bloom is too crowded the short petals are removed by the tweezers to allow the others to strengthen and grow much longer. If seediness shows in the centre it is eased by carefully taking out the florets a little from the inside of the inner petals, but not touching the centre, as that would be detected and called "taking out the eye." When the blooms are nearly expanded they are turned down and the wet kept from them; this preserves the outer petals, and keeps them incurved, otherwise they would reflex with their own weight and length. They are then cut and drawn tight into various sized wooden tubes and placed on the show board, with a slight dressing of such petals as are out of their places.

The varieties that are mostly grown for this purpose are the following, viz., Themis, Nonpareil, Vesta, Anaxo, Beauty, Plutus, Yellow Perfection, Novelty, Arthur Wortley, Dupont de l'Eure, Golden Queen of England, Queen of England, Alfred Salter, *Stellaris globosa*, Marshal Duroc, Christopher Colomb, Goliath, Leon Leguay, Madame Audry, White and Yellow Formosum, Cassy, Albin, Rosa mystica, Etoile Polaire, Hermione, Aimée Ferriere, and Phidias.

Large specimens in 11-inch pots grown on one stem are started as soon as possible; they are put in 48-sized pots, and the leader taken out when six inches high, to get six or seven breaks or laterals; they are kept in cold frames, repotted, tied out, and stopped up to the middle of July; liquid manure is used three times a week through the summer, and the shoots regularly tied out. The buds when formed are thinned out to obtain well-formed blooms, the foliage kept well sprinkled in hot weather with water, and the soil watered occasionally with a little soot mixed in the water to keep a fine dark leaf. They are housed the first week in October or put under canvas.

The varieties grown are Annie Salter, Chevalier Domage, Queen of England, Mount Etna, Hermione, Plutus, Pilot, General Havelock, Vesta, Defiance, Dr. Maclean, Madame Camerson, Progne, Alfred Salter, Christine, Auguste Mie, and Golden Clustered Yellow.

Pompones are grown in the same manner, and started immediately suckers can be got long enough for potting. The only difference is, many growers peg down instead of tying out; they stop them three times, and in general repot at the same time; they leave off stopping the first week in August, and put them under cover the first week in October, and carefully tie out and place every shoot in its blooming place a month before exhibition. The centre bloom is usually taken out to allow the later ones to come out altogether, as the centre bloom often comes a week earlier than the later ones, and takes the strength from the others. Great care should be exercised in using liquid manure, as they often go off by employing it too strong when forming flower buds, this being the critical time.

The best sorts are Cedo Nulli, Golden Cedo Nulli, Mustapha, Saint Thais, Bob, Brilliant, Helene, Borealis, Bijou de l'Horticulture, General Canrobert, Drin Drin, Madame Rousselon, Durufflet, Requiqui, La Vogue, Graziella, Solomon, and Adonis.

Temple Gardens.

SAMUEL BROOME.

CALENDAR FOR THE MONTH.

Auriculas.—These should be quiet at this season. Give them sufficient water to keep them alive only, but keep them clear of all dead foliage and aphides, and give plenty of air.

Azaleas and Camellias.—Both these, where not wanted to bloom early, should be kept cool, with a rather dry atmosphere; those which are to bloom next month will require very slight artificial heat to bring them on, the Camellias particularly. Azaleas will stand more heat, and should be syringed daily in bright weather, keeping the plants of Azalea near the glass.

Carnations and Picotees.—These will now require going over to clear them of all dead foliage, and slightly stir the surface of the soil; give scarcely any water, but keep the lights off during fine weather, and tilted at the back on all occasions, if the weather is at all open, when the lights cannot be entirely removed.

Cinerarias.—Little can be done with these other than as advised last month. All specimen plants should now have had their final shift. Great care must be taken in watering and ventilating; water early in the morning, that the foliage may get dry before nightfall, or mildew may follow; where such has made its appearance, a slight dressing of sulphur is necessary to eradicate it. Peg out the leaves of specimen plants, so as to let them have the full action of light and air. Remove all small suckers and superfluous leaves, and be cautious not to allow any frosty draughts, which will cause the foliage to curl. Keep as near the glass as possible.

Conservatory.—The plants named in our last will mostly be over, and their places will have to be filled with other stove plants and forced things. *Eranthemum pulchellum*, *Justicias*, *Luculia gratissima*, stove *Jasmines*, *Euphorbia splendens*, *Epiphyllums*, and other plants which have been brought forward for the purpose, will now lend their assistance. Forced *Camellias* and *Orange trees* will come in by the end of the month, as well as early *Tulips*, *Narcissus*, and *Hyacinths*. If the roof is occupied by climbers let them now be well thinned out, to admit as much light to the interior as possible; look to our last directions as to firing and cleaning.

Dahlias.—Seed may be cleaned during this dull time, and wintered in a tolerably dry place; damp or very dry situations will be alike injurious. Seed should be cleaned and stored in a dry, but not too dry a place.

Flower Garden and Shrubbery.—Alterations in this department, including earth work and turfing, may be proceeded with when the weather suits. Deciduous trees and shrubs may also be planted, but

unless with the very hardiest evergreens (which may be planted almost any time), we should defer the others till the spring. Where the border soil of shrubberies is exhausted, a good dressing of dung should be added ; now is a good time to thin out and prune deciduous shrubs. Rose borders should be well dressed with manure and forked in, or soaked with manure water. Keep the Grass free from leaves and frequently rolled.

Forcing Ground.—The severe frosts of late will render forced vegetables more necessary, for which reason French Beans, Seakale, Asparagus, and Rhubarb will be in demand, and their production should be attended to regularly, so as to keep up a succession. If our previous advice was taken, to plant a pit or two of dwarf Beans when there was the means of heating, they will now prove invaluable. Fill a few lights with Asparagus every two or three weeks, to keep up a succession during mid-winter ; a hot-water pit is the best place for this useful root. Parsley, Endive, and Lettuce, in frames, should have an abundance of air daily, and the same rule applies to small Cauliflowers and Lettuce for the spring. A slight hotbed should now be got ready for a sowing of Horn Carrot and frame Radish, and a few early Potatoes may be put in heat to sprout.

Hard-wooded Plants.—These will require free admission of air on all opportunities. Do not light the fires to any extent, beyond occasionally drying the house and to keep out frost. On this point, we prefer covering the glass in severe weather with some protective material to making strong fires. Let the plants be kept clean, and free from dust.

Hardy Fruit.—Where wall fruit trees have been much infested with insects, it is a good plan to unnaïl them at this season, pick off the shreds, and to boil those that will come into use again, to destroy the eggs of insects ; the best of the nails, too, after being heated in a shovel over a hot fire, and well shaken to remove the dirt from them, should be dropped into linseed oil ; the walls may then be washed over with a wash composed of cement and Spanish red (for colouring), adding a little sulphur vivum. Where walls are old and the trees much infested with insects during the summer, we have found the above plan assist materially to keep the trees clean afterwards. Pears and Plums infested with scale should be dressed over with the Gishurst compound, using from three to four ounces per gallon ; and the same composition may be applied to any trees on which insects have been troublesome the past season. Continue the pruning and training of hardy fruit trees as the weather permits, and protect Figs by tying the branches together and wrapping haybands round them, or thatching the trees with Fern or straw. Look to the fruit-room, and remove anything decaying before it infects those adjoining, keeping the air and temperature uniform, as advised in our last.

Kitchen Garden.—The frosts of October and November have committed sad havoc among vegetables, and, to judge of its severity by the results, it has been the most destructive frost we have had for years. Great care should be taken with all spring plants, as Cauliflowers, Lettuce, Spinach, Cabbage, &c., as vegetables will be very scarce in

the spring, as indeed they are now. If a sowing of the Sangster's No. 1 Pea was not made last month, no time should now be lost, planting them on a dry warm soil, not over-rich, but where they can be protected from the cutting blasts of March. Look to them after sowing, for mice, which very frequently spoil the crop unobserved. A small crop of Mazagan Beans may also be planted.

Peach-house.—It will not be desirable to apply fire-heat by night, unless the house falls below 40° , until the buds are well swollen and ready to open; but a little fire-heat may be given by day in dull cold weather, so that it does not exceed 55° . When a sunny day occurs, take advantage of it by closing the house early; in other respects air should be admitted daily, that the buds may break strong and produce bold perfect blooms, when there will be no fear about their setting; if any part of the borders is outside the house, it should be protected from wet and frost by a covering of leaves, and thatched. Dress and train the next house, for bringing forward by the middle of the month.

Pelargoniums.—Any plants which require shifting should be done at once. Keep them close for a few weeks, until they have struck root into the new soil. Avoid keeping much fire at this season; a moderately dry heat, just excluding frost, will be sufficient; however, the fancy varieties do best in an intermediate house. Water in the morning for the house to become dry by the middle of the day. Look over frequently and pick off any decayed foliage. Stand the plants as thin as your room will allow, and also keep the shoots tied out frequently, so that they may get a free circulation of air through them. Spare no labour to keep the plants in a healthy vigorous state.

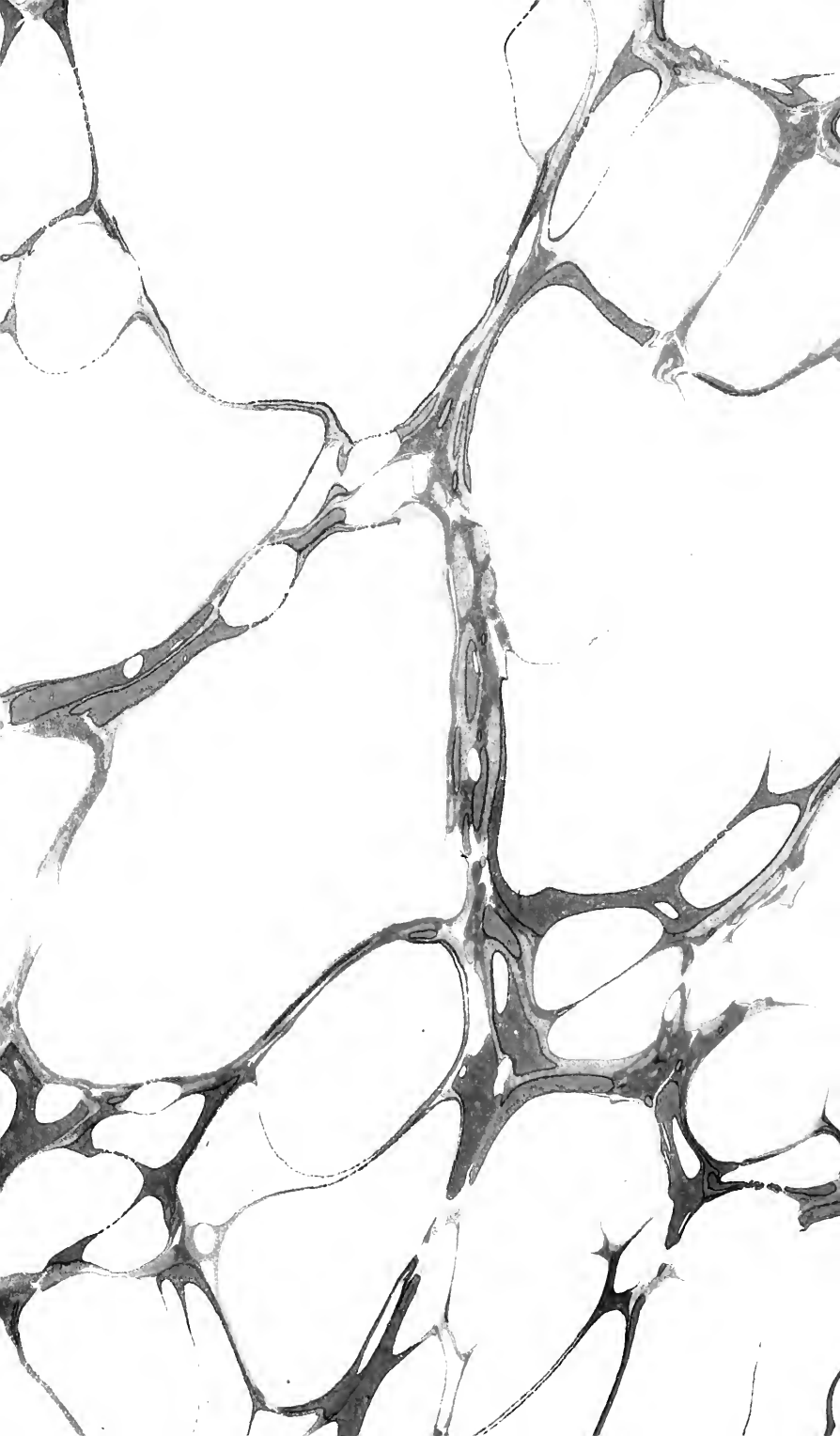
Pinery.—Where fruit is required to ripen in May, those plants which have been longest rested should now have additional heat to induce them to throw up; the bottom heat, too, should be increased, either by turning up the bed, or replunging the pots; or, if heated by hot-water pipes, putting on more heat. When the plants are well supplied with bottom and top heat water should be given to the roots; this excitement to grow will most probably result in the greater part of them showing; the top heat should be as dry as is practicable. We know a good grower who always at this season puts his plants in a *flued* pit to get them up, and it certainly produces the effect more quickly than pipes. For other Pines, consult our last directions. The stock of fruiting plants intended for summer should now be kept quiet at about 60° night, 75° day.

Vinery.—The Vines started last month will now soon break. Thin out the buds as soon as the fruit is discernible, and stop these shoots one joint above the fruit, when grown sufficiently long. The night temperature may be raised by degrees to 60° night, increasing this to 65° and 68° by the time the Vines get into bloom. To this may be added 10° extra for the day temperature when the weather is bright, but during dull weather work more slowly, that a sufficient amount of light may accompany the growth of the young wood. The second house should be dressed, trained, and the heating apparatus got ready for starting the Vines, so as to keep up the required succession.

GENERAL INDEX.

- Achimenes, culture of, 154, 368
- Amaryllis, culture of, 278
- Amateur's Guide, Sutton's, 27
 - „ hints to lady, 49
- American garden, plan of, 347
- Anemone, culture of, 156
- Auriculas, 161
 - „ wintering, 341
 - „ classes of, 265, 291
 - „ Headley's, 244
 - „ list of, 182
- Auricula shows, 119
- Baskets, hanging, 135
- Bedding plants, 24
- Begonia splendida, 122
- Blenheim, 24
- British Pomological Society, 51, 89, 147, 221, 244, 279, 317
- Brighton exhibition, 311
- Broccoli, list of, 219, 230
 - „ wintering, 281
- Brugmansia suaveolens, 323
- Cadlands, 309
- Calendar for January, 28
 - „ February, 61
 - „ March, 93
 - „ April, 125
 - „ May, 157
 - „ June, 190
 - „ July, 222
 - „ August, 254
 - „ September, 285
 - „ October, 318
 - „ November, 349
 - „ December, 376
- Camellias, 110
 - „ select, 116, 130, 199
 - „ Valtevarado, 129
 - „ Countess of Derby, 321
 - „ culture of, 327
- Carnations, winter, 123
 - „ Headley's, 244
- Carnation Society, National, 271, 274
- Chiswick Garden, 114
- Chrysanthemums, 65, 373
- Chrysanthemum Society, 76
 - „ shows, 120
- Climate and fruit growing, 143
- Cobham Hall, 282
- Critchill, 130
- Crom Castle, 269
- Crystal Palace exhibitions, 163, 194, 305
- Currants, 152
- Dahlia show, National, 58, 84, 296
- Farnham Castle, 178
- Fern classification, 37, 100, 211
- Ferns, Francis' British, 75
- Fern drying, 348
- Florist, homes of the, 242, 365
- Forsythia viridissima, 122
- Frogmore Gardens, 298
- Frost, spring, 130
- Fruit culture, 18, 152
 - „ trees, economical culture of, 260, 294
 - „ „ replanting, 82
 - „ show, St. James's Hall, 59
 - „ growing and climate, 143
- Fuchsias, new, 33
 - „ culture of, 33
 - „ from seed, 149
- Garden, chronicles of a small, 5
 - „ laying-out, 261
- Gardening, landscape, 23, 75
- Gardeners' Assistant, 171
- Gardenias, 368
- Garrya elliptica, 124
- Geraniums, variegated, 111
- Gladiolus, 97
 - „ select, 99
 - „ autumn, 293
- Grapes, various, 51, 370
 - „ Golden Hamburg, 248
 - „ shanking, 267

- Hanoverian Band Floral Fête, 210
 Headly, Mr., 242
 Horticultural Society, 36, 85
 " " Exhibition, St.
 James's Hall, 176
 " " new garden,
 239, 262, 364
 Hyacinths, Cutbush's, 117
 " culture of, 303
 " in Moss and sand, 285
 Jasminum nudiflorum, 99
 Lachenalia quadricolor, 13
 Lælia Schilleriana, 193
 Leasowes, account of, 324
 Lonicera fragrantissima, 17
 Mildew, cure for, 230
 Month, notes on, 91, 249, 343, 360
 Mushroom bed, 342
 National Floricultural Society, 118
 Notes and Queries, 214
 Orange, the, 344
 Orchids, select, 193
 Palace of the People, 49, 247
 Pansies, 132
 " select, 134
 Pansy Society, Scottish, 201
 Peaches and Nectarines, 315, 361
 Pears, Beurré Aguste Benoist, 71
 " Fladberg, 72
 " stewed, 70
 Pelargoniums, 353
 Pelargonium showing, 140
 Perennials, list of, 208
 Picotees, 289
 " select, 290
 Plants, new, of 1858, 8, 45
 " bedding, 24
 Planting and plantations, 301, 332
 Phloxes, 257
 " list of, 259
 Plocostemma lasianthum, 1
 Plum, new, 1
 Pruning, 44
 Pteris argyræa, 301
 Raby Castle, 107
 Raspberries, 35, 150, 172, 230
 Rhododendrons, Sikkim, &c., 20, 264
 Roses, remarks on, 2
 " new, 138
 " old and new, 348
 " Duchess of Norfolk, 181
 " Cloth of Gold, 203, 230
 " Isabella Gray, 203
 " yellow, 68
 " Eugene Appert, 225, 250
 " Rev. Mr. Radclyffe's, 237
 " Devoniensis, 303, 329, 362, 372
 " analysis of, 262
 " select, 331
 " planting standard, 250
 " Dorset wall, 357
 " recollections, 372
 Rose Show, National, 166, 214
 Roses, showing cut, 146
 Royal Botanic Society, 141, 188, 205,
 231
 Salvia gesneræflora, 291
 Sea-side Plantations, 284
 Seed Sowing, 135
 Spergula pihifera, 80, 165
 Strawberries, 14, 18, 228
 " French, 77
 " Alpine, 151
 " perpetual, 272
 " American, 370
 " various, 322
 Tiffany, uses of, 354
 Transplanting, philosophy of, 252
 Tulips, national exhibition of, 137, 180
 Tunbridge Wells exhibition, 230
 Veitch's (Mr.) Nursery, 27
 Verbenas, 87
 Verbena pot, 170
 Vines, budding, 229
 " to graft, 86
 " pruning and training, 335
 Violets, 184
 " Neapolitan, 155
 Yam, Chinese, 332
 Zoological Society, Bristol, 205





3 5185 00292 4619

