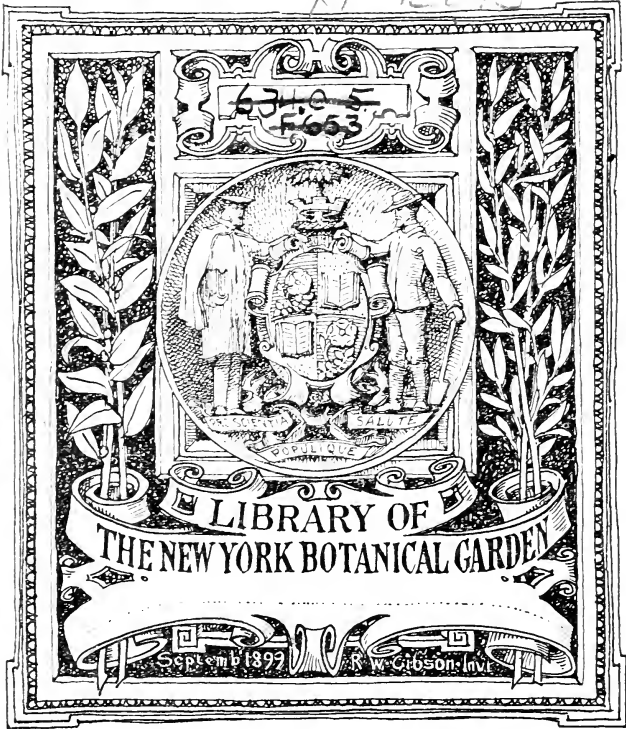
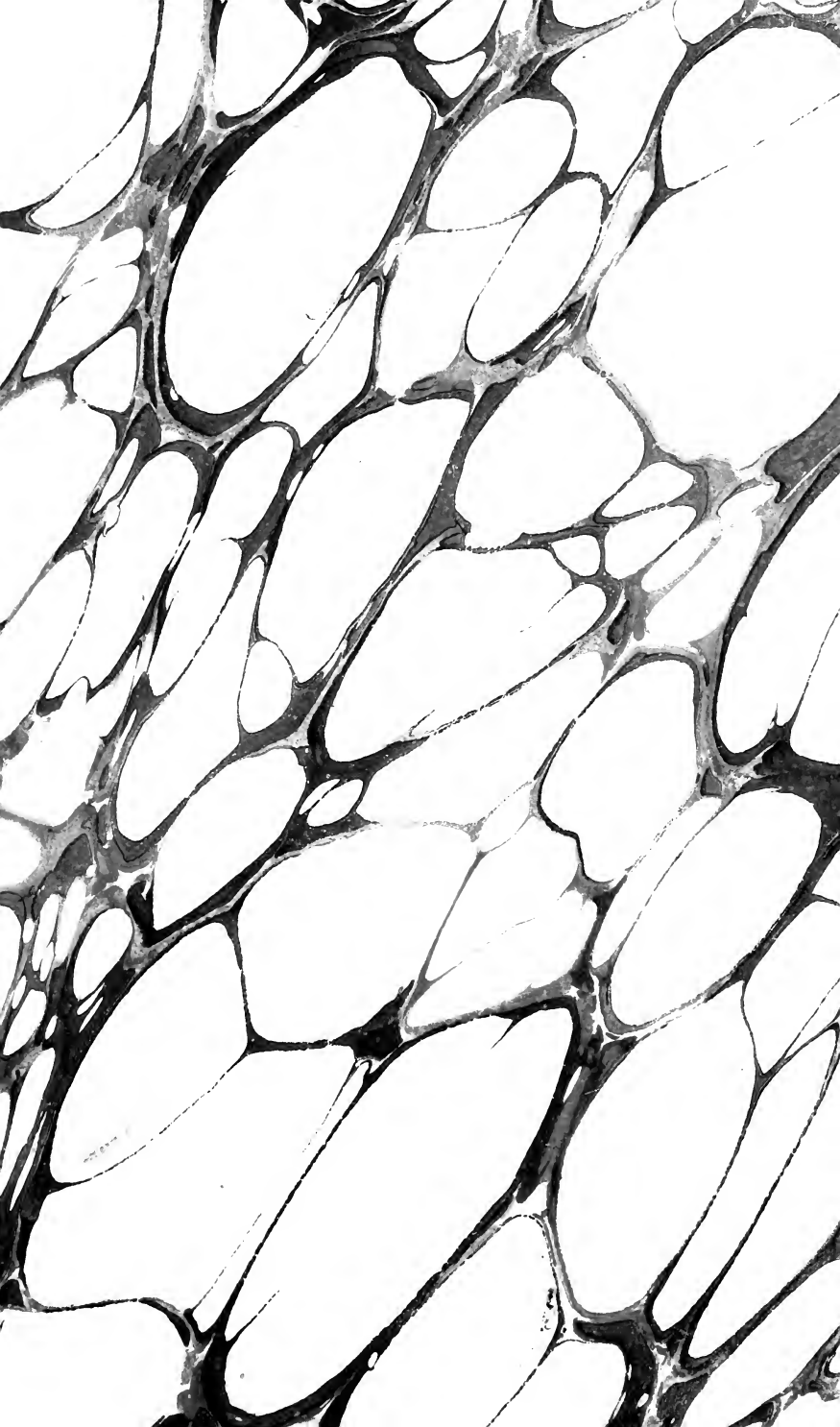




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NEW YORK
BOTANICAL GARDEN.

THE
FLORIST, FRUITIST,

AND

GARDEN MISCELLANY.

1854.



LONDON:
CHAPMAN AND HALL, 193, PICCADILLY.

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1854

LONDON:
PRINTED BY S. WHITWELL, NORTHUMBERLAND TERRACE,
BAGNIGGE WELLS ROAD,

INDEX TO COLOURED PLATES.

- | | |
|---|--|
| <p>Cineraria, Lady Mary Labouchere, 129
 „ Optima, 129
 „ Mrs. Truelove, 129
 „ Sir Charles Napier, 129
 Clematis lanuginosa, 225
 Cyclamen Atkinsi, 161
 „ rubrum, 161
 „ punctatum, 161
 „ roseum, 168
 „ ibericum, 161
 Dahlia Rachel Rawlings, 33
 „ Fanny Keynes, 33
 „ Beauty of Slough, 97</p> | <p>Dipladenia magnifica, 321
 Impatiens Jerdoniæ, 1
 Pelargonium Lydia, 257
 „ Conqueror, 257
 „ Laura, 257
 „ Phaeton, 257
 „ Wonderful, 257
 Philesia buxifolia, 65
 Phlox, Countess of Home, 353
 Rose, Duchess of Norfolk, 289
 „ pruned and unpruned, 77
 „ misrepresentations, 112, 113
 Tulip George Hayward, 193</p> |
|---|--|

INDEX TO WOODCUTS.

- | | |
|---|---|
| <p>Abies Douglasi, 49
 „ canadensis, 73
 „ nobilis, 106
 „ Deodara, 139
 „ pinsapo, 341
 Araucaria imbricata, 23
 Azalea, conical, 101
 Chrysanthemum, Pompone, 3
 Cineraria, specimen, 131
 Cryptomeria japonica, 201
 Cunninghamia sinensis, 169
 Erica Cavendishi, 247
 Exhibition building, Cheltenham, 215
 Flower-gardens, plans of, 185, 207, 331
 „ at Cooper's Hill, 119
 „ at Bowood, 156
 „ at Regent's Park, 315
 „ at Drummond Castle, 363
 Kalosanthes coccinea, 85</p> | <p>Label, numbered, 8
 Orchard houses, 55
 Pear, Reine d'Hiver, 151
 „ Jalousie de Fontenay Vendée, 152
 „ Colmar d'Arenberg, 153
 „ Baronne de Mello, 237
 Pinus monticola, 233
 „ insignis, 297
 Plum, Huling's Superb, 28
 „ Coe's fine Late Red, 28
 „ Jefferson, 58
 „ Ickworth Imperatrice, 59
 Rose, specimen, 44
 Strawberry, Omer Pacha, 276
 „ Prince Alfred, 276
 „ Filbert, 277
 „ Scarlet Nonpareil, 278
 Taxodium sempervirens, 265
 Walls, glass front for, 83</p> |
|---|---|



THE
FLORIST, FRUITIST, AND GARDEN

Miscellany.



IMPATIENS JERDONIÆ.*

(MRS. JERDON'S BALSAM.)

[Plate 82.]

WE have much pleasure in introducing to our readers, in this our first Number for the present year, a faithful representation, in the accompanying plate, of the Messrs. Veitch's remarkable new Balsam, *Impatiens Jerdoniæ*. Within these last few years several species of Balsams have reached English gardens from British India; but whether we regard the fine dwarf habit of this variety, the ease with which it may be cultivated, or the singular beauty of its flowers, which in colour are a brilliant brick-red contrasted with yellow and green, and which possess, in addition, the excellent property of remaining in perfection for a considerable length of time, we think our present subject must be considered a very great acquisition.

The plant grows about one foot in height, with fleshy, somewhat jointed stems of a deep purple colour, which occasionally throw out roots, and are covered with numerous ovate deep-green leaves, from the axils of which spring short peduncles, each bearing three or four slender pedicels, longer than the peduncles, and terminated by carrying a solitary flower, of which our plate conveys a correct representation.

The public are indebted for this valuable addition to our gardens to Mr. M'Ivor, who sent plants of it, from the Neilgherry hills, in British India, to Messrs. Veitch and Son of Exeter and the King's Road, Chelsea, in whose greenhouses it has been blooming beautifully during the last autumn; and who kindly gave Mr. Andrews permission to make a drawing

* An error has inadvertently occurred in the spelling of this name in our plate.

Mr. Robinson's directions are as follows :

" Having paid particular attention for the last two years to this interesting autumnal flower, I will briefly give the result of my experience for the benefit of your readers. The little Chusan Daisy, introduced through the Horticultural Society some years ago by Mr. Fortune, and distributed by it amongst its Fellows, was the parent of the numerous and beautiful varieties we now possess. We are, however, principally indebted to the continental growers for the great improvements effected on the original by judicious hybridising, for they do not seed freely in this country. Mr. Salter, of Hammer-smith, was, I believe, one of the first in this country to bring this flower prominently before the public, by annually importing, as he does, all the best new varieties. This is also done by Messrs. Henderson and Son, of the Wellington-road Nursery, St. John's Wood, Mr. Ivery of Peckham, and Mr. Turner of Slough, who grow all the leading sorts at present known. I am of opinion that the Pompones are the best autumnal plants for pot culture we have had introduced into this country for some years past.

" The soil most suitable for them is one-half rich turfy loam, one-fourth horse and cow manure in equal parts well decomposed, and a small portion of silver-sand. The Pompones are easily propagated; about the second week in April is a very good time to perform this operation. Having obtained as many thumb-pots as you require, fill them with rich light soil. Commence the work by taking off strong healthy cuttings, placing each cutting singly in the pot. The pots should be plunged into a brisk bottom-heat, either in a propagating-house or frame, keeping them close, and frequently sprinkling them overhead with a fine-rosed watering-pot; by no means allow them to droop. As soon as rooted, admit air on all occasions when the weather is favourable, increasing it as the plants become established. When sufficiently rooted re-pot them into 4-inch pots, and place them again in a slight bottom-heat, keeping them rather close for a week or ten days; this will promote their growth very materially; after which admit air plentifully to strengthen the plants. When well rooted they should be shifted into 5-inch pots.

They may now have the full benefit of both sun and air. When well rooted round the pots, stop them close down within three inches of the soil; by this plan you will make short, bushy plants. After they have broken, shift them into 6-inch pots, in which they will make fine specimens; but if you require them very large, you may give them another shift into 8-inch ones, or they may be put into these pots at once instead of 6-inch.

After they have received their final shift and are well established, you may give them a little weak manure-water twice a-week, and plunge them about half way down the pots in the ground in the open air, where they may remain until the buds are well set and have begun to show colour, when they should be removed to the greenhouse or conservatory. In the absence of either of these conveniences a pit will answer very well. Fumigate with tobacco at least twice at this stage of their growth. If these instructions are

carried out, you will find them open their blooms clean, vigorous, and in first-rate character.

Plants, when well grown, make fine objects during the latter end of October and November; and some varieties will continue in bloom until the end of December.

The following list of 30 varieties are the best out; and, with the exception of one, I have grown and proved them all:

Argentine. White, free bloomer; very good; early variety.

Autumnum. Orange-brown, distinct; very showy; early.

Adonis. Lower part of petals white, upper fine rosy-purple; good in habit, and a free bloomer.

Atropos. Bright reddish crimson centre, Anemone flowered; habit good, and very distinct.

Asmodee. Guard-petals orange; centre bright orange: very good.

Atala. Blush, rosy lilac centre; large and compact; rather tall grower.

Arames. Rosy purple, compact; rather tall grower.

Bijou d'Orticulture. Fine creamy white; good habit; fine form; full bloomer.

Criterion. Orange-buff, changing to yellow in the centre; very distinct, and fine form.

Cedo Nulli. Beautiful blush-white; large free bloomer; very distinct and showy: the best of its class.

Daphne. Rosy crimson, partly Anemone flower; habit good; free bloomer; very showy.

Drine Drine. Beautiful soft yellow; fine form; very dwarf: one of the best.

Fenella. Bright yellow; small and compact; profuse bloomer.

Graziella. Blush, or lilac; large well-formed flower; good habit; one of the finest.

La Gitana. Delicate blush-white; centre yellow; fine form; free bloomer; habit good.

Madame Hector Jaquin. Large white; good form; late.

Mignonette. Lower part of petals yellow, upper amber; very pretty; dwarf; good form.

Model. Blush-white; very fine form; perfectly round; dwarf habit: one of the best.

Minon. White, tipped blush; dwarf habit; free bloomer.

Nelly. Sulphur-white; very large; showy; free flower; late; one of the finest.

Poulidetto. White ground flower, deep edging of lilac; beautiful foliage; free bloomer: good.

Hendersoni. Yellow; profuse bloomer: the earliest grown.

President Decaisne. Very large double flower; showy, and very distinct: good.

Princess Mathilda. Straw with white centre; free bloomer; good habit; rather late.

Louise Pitou. Blush-white; very free; dwarf habit: good.

La Pactole. Lemon colour; compact free bloomer; dwarf habit: fine.

La Vogue. Bright yellow, large; fine form: best yellow out.

Surprise. White ground tipped with blush-rose; dwarf and free.

Solfaterre. Pale yellow; free bloomer, and early.

Sacramento. Orange, yellow centre; Anemone flowered; early.

Pimlico.

J. ROBINSON."

FRAME-GARDENING.

NO. I. JAPAN LILIES.

I NEED not ask, Who are not fond of flowers? the question is answered every day, either by inquiry or recommendation: those who are unfortunate enough not to possess them, admire them none the less on that account; and those who have such enjoyable companions, I find, are at all times anxious to widen their circle of acquaintance, and to increase those means of enjoyment which flowers bring within their reach.

But in addressing your readers, I must remember that they constitute a varied class, with means for cultivating the objects of their choice as varied as their position or occupation, and for this reason I beg them, through your pages, now and then to permit me to suggest a hint or two, for the object of showing how the gratification of those whose garden accommodation does not include a regular greenhouse may be increased by a little contriving, so as to bring a variety of plants within their means of culture hitherto confined exclusively to the proprietors of glass houses of more pretensions than a glazed pit or common garden-frame.

With the above short preface, I will commence by pointing out how far the latter-named structures may be employed for the growth of various ornamental plants; among which, the present paper will be devoted to the frame-management of that beautiful section of Liliaceous plants, introduced principally within the last twenty years from the Japan Islands, and known popularly as "Japan Lilies," and botanically as

<i>Lilium lancifolium album.</i>	<i>Lilium Browni.</i>
" " punctatum.	" japonicum.
" " rubrum, or speciosum.	" eximium.
" atrosanguineum.	" longiflorum.

The above include the principal species, but many seedling varieties of *Lancifolium* and *Atrosanguineum* are met with in the nurseries.

If a part only of the above can be accommodated, select the first four on the list and the two latter. Good flowering bulbs of the above may be easily obtained of any respectable nursery or seedsman; and if their culture is decided on, no time should be lost in obtaining the bulbs, and potting them before they begin to form new roots. For potting, select equal parts of turfy loam and fibrous

peat, with about an eighth part of silver-sand, to which add a small quantity of well decomposed leaf-soil, or very rotten cow-dung, free from worms. Let all the ingredients be dry and well mixed together, without making it too fine; the pots must be clean and dry: drain them well by placing (according to their size) two or three inches in depth of broken crocks and small pieces of charcoal; over which place a handful of dry moss; one, three, or five bulbs may be placed in suitable sized pots: a 12-inch pot will grow five moderate-sized roots of the *Lancifolium* section, and seven of *Eximium* or *Longiflorum*; next fill the pots about three parts full with the roughest of the compost, and on this place the roots, filling up with soil to the level of their crowns. The soil must not be pressed hard in the pots, but left to settle down by degrees; after potting, a blow or two on the bench will be sufficient; the crown of the roots should be about an inch below the rim of the pot when finished. They should next be taken to the pit or frame, and placed on a dry, porous, bottom, which will carry off wet and exclude worms; fill up the space between the pots with ashes or sawdust, covering the surface of the pots an inch or two with the same material. The sashes may now be put on, or, in their absence, boards or felt may be substituted; the bulbs only want protection from frost and wet till the shoots make their appearance, when glass will be necessary. This will be the case towards April, when the ashes, &c., should be cleared away. As active growth has now commenced, water in moderate quantities must be given, increasing it as the plants advance; at this time the pots will require to be filled up to the rim with similar compost to what they are growing in. This will encourage the growth of the new roots which are annually formed at the base of the young shoots, and will materially help their subsequent growth. It is now essential to keep the plants near the glass for the shoots to obtain strength, to assist which, air must be given by tilting up the sashes daily; by the middle of April these may be drawn entirely off on sunny days, and air left on the pit by night. As the shoots of the *Lancifolium* section advance, they will require staking and tying out (where more than one are grown in a pot), in a symmetrical manner; by the middle of May they will bear entire exposure, and should have a sheltered situation open to the east or south; manure water in a clear state may now be given once or twice a week. *Eximium* and *Longiflorum* will show for bloom in July; and a few pots of these, as well as the others, may be placed against a south wall or building, if wanted to flower a little earlier than the general stock; and at the same time a few may be placed in the shade, for the purpose of retarding them, and thus prolonging the blooming season.

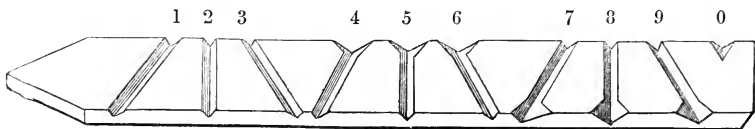
When placing the stakes in the pots, keep them away from the bulbs, which they might otherwise injure, and leave them long enough to support the shoots throughout their growth; for this they will require to be from 3 to 4 feet long for the taller kinds. When the flower-buds are formed, give them their final tying, as after the flowers open they should be disturbed as little as possible, and the bloom protected from wet, which soon spoils the beauty of the

Lancifolium section. The plants have now reached a stage in their growth when their beauty will increase, as their blooms are successively unfolded. During the time they are in bloom they may occupy various situations: an entrance-hall or lobby; the drawing-room, or under the protection of a veranda; in each situation they will not fail to be universally admired, for the display of glowing crimson (in various tints) contrasted with the purest white in the same flower, or with white alone in others; while their graceful habit and the elegance of their lance-shaped leaves, combine in forming a plant of surpassing loveliness. *Lilium eximium*, and its ally, *longiflorum*, are plants of humbler growth, and of less pretensions than the others; but the snowy whiteness and delicate fragrance of their flowers render them no less attractive in their way. When the flowers decay the plants should be removed to the foot of a south wall, or some situation fully exposed to the sun, to assist the ripening of the shoots; water must now be given sparingly, and as the shoots and leaves become yellow, the pots may be laid on their sides; or if the pit or frame in which they are to winter is at liberty, place them in it, fully exposing them to light, and merely protecting them from wet. When the ripening process is fully complete (known by the shoots dying down to the soil), the bulbs may be repotted when there is time; but the sooner this is done after they are fully ripe, the stronger will they bloom the following year. In potting the second year, proceed as before, except that any live roots should be preserved, and more pot room allowed as the bulbs increase in size. Where very large specimens are wanted, from seven to twelve bulbs may be planted in sixteen or eighteen inch pots; the small offsets should be removed when repotting the bulbs, and planted in small pots for growing on.

In concluding this paper, allow me to hope some of your numerous readers will form an acquaintance with the subjects of our chapter; and when once they have seen them in bloom, I feel sure they will not soon relinquish their cultivation. S.

NEW METHOD OF NUMBERING.

To such of your readers as keep their flowers under number, I beg to recommend a plan of marking which I have used for some years with great advantage. The characters are easily made with a knife, are of the most simple form, and easy to be remembered; the accom-



panying sketch exhibits a tally with all the numbers. A straight cut and a notch are really the only figures used: 1, 2, 3, a straight

cut across the tally; 1, leaning from the point (the left hand); 2, square across; 3, leaning from the right hand; then a notch upon the upper end of either of these increases their value by 3, making 1 into 4, 2 into 5, and 3 into 6; then a notch on the lower end (without any on the upper end) increases the value by 6, making 1 into 7, 2 into 8, and 3 into 9, the notch alone standing for 0. This plan is also applicable to tallies of zinc, the straight figures being made by a small blunt chisel, and a small punch for the notches. The numbers should be cut and read from the point of the tally; or, in the case of its being tied to a plant, the end attached to the plant must be held in the left hand to cut and read the numbers.

INDICATOR.

ARAUCARIA IMBRICATA AND LAPAGERIA ROSEA.

At this season of the year, when nature is taking her annual repose, and there is little to report of horticultural transactions, it may interest your readers to see the account given of the *Araucaria* and *Lapageria* by that distinguished German botanist, Dr. Poeppig, as he saw them in their native habitats in South Chili.

After having spent the summer in Northern Chili, chiefly in the neighbourhood of Valparaiso, where the soil is for the most part dry and rocky, he sailed in the autumn for the southern and cooler division of that country, and landed at Talcahuano, in the Bay of Concepcion, where he first met with the *Lapageria*. As his notice of this plant is but short, I shall transcribe his description of the general aspect of the scenery around Talcahuano.

“The neighbourhood of Talcahuano presents much that is highly interesting to the botanist, even in autumn. It does the eye good, after being so long unaccustomed to it, to see once more a country whose hills are clothed with green forests. Even those heights which are destitute of trees never entirely lose their verdure; and the autumnal season, though less abundant in this respect than North America, is marked by the flowering of many plants. We are reminded of the northern hemisphere by an *Aster* and a *Solidago*, which, as yet, seem to be the only representatives in Chili of these widely-extended genera. The *Proustia*, with its violet-coloured pappus, overruns the higher trees, on whose bark handsome *Loranthi* have fixed themselves. Small *Oxalides* and various *Grasses*, the *Mollugo*, *Salsola*, &c. grow mingled together along the course of the river Biobio. Following the shores of the bay, you meet with many difficulties from fragments of rock and other obstructions; but the trouble is well repaid. Many sea-weeds—*Ulvæ*, *Confervæ*, and *Tangle*—are left by the retiring tide among the stones, and invite the industrious collector; while the steep precipice on the left hand presents many before unseen, and occasionally very beautiful plants. The *Tetragonix* commence at the bottom, followed by *Eupatoriæ*. Under the overhanging rock the *Chilian Alsophila* spreads its blue-grey foliage, amidst which blooms the nearly stemless *Bromelia* of

this coast, very similar to that found near Valparaiso. The *Francoa* hangs down its bunches of pale red flowers; and where the soil is driest, an *Orchid*, of no great show, it is true, like our northern ones, but enriched with a fragrance like that of the *Orange-flower*, blooms in the depth of winter. It is used by the natives medicinally, as is also a small *Anagallis*, which, at first sight, appears perfectly similar to that of Europe. In many places the steep wall of rocks which borders the shore is broken by gulleys, through which clear streamlets trickle; and here a new harvest awaits the collector. The common *Fuchsia* grows here in company with another kind, the branches of which, in spring, before the leaves come out, are covered all over with short-stemmed pink flowers. Between these grow *Arbutuses*, the berries of which are used by dishonest wine-sellers to impart a strongly intoxicating quality to their liquors, much to the detriment of their simple customers, who are thrown into a violent delirium by it. The *Weismannia* displays its finely feathered leaves close by the evergreen *Coriaria*; and the beautiful *Myrtle* family, found all over Chili, from the shores of the sea to the snows of the Andes, appears here under new and peculiar forms. When, after much difficulty, and probably with many a tumble, you have at length reached the top of the mountain which forms the peninsula, you find yourself in a verdant wood of lofty trees, the stems of which are, in many instances, thickly covered with moss. The Flora which crowns this height, even after such an introduction, is indeed enchanting. The *Guevina*, whose nuts surpass those of Europe in flavour, but which can only be enjoyed while fresh, when the bitter skin which covers the kernel, and which soon dries fast on, can be rubbed off, reminds one of the New Holland Flora, the parasite Ferns, and various climbers, of that of the tropics; and he that has the vegetation of Northern Chili fresh in his recollection will rather suppose that he has wandered in that direction from Valparaiso, than that he has approached the cooler regions of the south. The *Lapageria* sends out its fine entangled shoots from bush to bush, and while its dark-green shining foliage undergoes no change from the varying seasons, adorns itself with its bright-red Lily-like blossoms just at that time of the year when all the surrounding vegetation is at a stand from the near approach of the rainy season. From this peculiarity and the splendour of its blossoms, the natives are in the habit of forming those beautiful garlands, with which, after the old fashion of their original country, they decorate the crosses in the streets and churches during the congenial month of the Chilian May. From February to July, through all the storms of winter, does it adorn the sleeping woods; and it is with regret that I hear that all attempts to transplant it to Europe have hitherto been unsuccessful.* The wooded

* This is no longer the case: Messrs. Low and others have plants of it, and your intelligent correspondent, Mr. Houlston, informs me that it is doing well in the Royal Gardens at Kew, on the back wall of a greenhouse with a north aspect. Flowering during the rainy season of Chili, when the sky is almost constantly overcast, though the temperature is mild, it will neither bear exposure to our summer sun nor to our winter cold.

regions of these hills are of distinguished beauty, though the Chilian Palm is no longer seen in a flourishing state so far to the south, and the far-famed Araucaria, the loftiest tree of extra-tropical South America, finds the climate too warm to thrive in. A couple of cultivated specimens of it near Talcahuano, and another near St. Thomas, give, however, some idea of what this majestic tree must be in its native mountain locality, and raise one's anticipations of the vegetation of those unexplored regions to a high degree. When, having made your way through dense thickets of the Puya, which here grows to an unusual size, you at length reach the highest point of the peninsula, which, from having been a signal station, bears the name of La Sentinela, a prospect opens upon you possessing every requisite of a rich and varied landscape. Shrubs of low growth, which at no time of the year are destitute of foliage, —and, in truth, two or three kinds of trees only are properly deciduous here, after the manner of the northern world—rise around the place where you are standing, without, however, intercepting the view of the distance. Near the foot of the mountain are seen the two bays and the wooded hills by which they are partly inclosed. Farther on stretches the plain of Concepcion, with its scattered clumps of trees and herds of cattle feeding, and behind the city bare rocky heights show themselves; while the Biobio, of majestic breadth, flows between its picturesque banks to the sea; and on a clear day the snowy summits of the Andes, though not to any great extent, are visible; while behind you the eye loses itself in the blue distance of the boundless ocean.”—POEPPIG, *Reise in Chile, &c.*, vol. i. pp. 315 *et seq.*

The account of the Doctor's excursion to the Araucaria forests, on the lower ranges of the Andes, near the village of Antuco, would extend this article to a greater length than might perhaps be convenient to you; but if I find, from your insertion of this, that you are desirous of it, I will send it in time for the next Number.

MEDITERRANEUS.

ROSES FROM SEED.

ONE of the floricultural problems for which a solution seems most difficult to be found is the all but entire neglect with which amateurs have so long treated this interesting branch of gardening. Growers can hardly be included in the charge; for the time and attention necessary to carry it out with any hope of success are more than they can devote to it. To the amateur, therefore, have we for years looked, in the expectation of being ere this relieved from the odium of the French lady's remark to us, “You have no good English Rose—they are all from France;” and except for *Devoniensis*, then in perfection (in August), coming to our rescue, how entirely should we have been without a substantial reply! Although we have raised few good seedlings, however, we cannot entertain the

idea that the cultivation of our national emblem is on the wane; for independent of other strong evidence, we must, when we see our beloved Sovereign preferring bouquets "entirely of Roses," and the *Gardeners' Chronicle* (see p. 776), recommending a list of some of our finest varieties for cultivation in "Cottagers' gardens," come to the conclusion that it is rather gaining than losing admirers. No apology can, therefore, be needed for our introducing—we might say urging—this subject on the notice of your readers, or for echoing what has already been written so much more ably with regard to the promotion of the same object.

This apathy, as respects raising seedlings, may have arisen from the barren results that have hitherto followed the mere gathering and sowing the hips which warm summers generally ripen; and it is by illustrating the hopelessness of such a practice, and the great probability of success when the necessary assiduity and care are bestowed on hybridising, that I venture to second the clear practical directions given by Mr. Rivers in his *Rose Amateur's Guide*, and the elaborate instructions on the same subject given by Mr. W. Paul in his beautiful work, the *Rose-Garden*.

To those of your Rose-loving readers who have not proved how futile is the time bestowed on mere chance Rose-seed sowing, the following extract from the *Beauties of the Rose* may not prove an inapt illustration:

"English cultivators are under a great disadvantage compared with their brethren in France, as it is only in very fine seasons that our best Roses bear seed, and even then, owing to its being imperfectly ripened, but a small portion grows; our chance of raising fine Roses from seed is therefore very slender, as I can illustrate by facts; in 1846 I had a bushel of Rose-hips gathered from all our fine hybrid perpetual and Bourbon Roses. Some of the seed grew in 1847, the remainder in 1848, and all the plants, amounting to some hundreds, blossomed in 1849; but of these, one only is really a fine Rose."

To provide against the disadvantage spoken of above, and to insure by fertilisation the vegetative powers of the seed, must be the aim of the amateur, whose devotion, it is trusted, will be more readily secured to this pursuit by the following account of the parentage, &c. of that universal favourite *Devoniensis*.

"This fine variety (*Devoniensis*) was raised by George Foster, Esq., of Oatland, near Devonport (a genuine lover of horticulture and a true florist), who believes that it was produced from the yellow China, fertilised by the yellow Noisette, as he was in the constant habit of impregnating the former with the latter. It flowered the first year from the seed-bed, but was small and weak; on being budded, however, on a strong stock, it proved a very fine variety."

Thus it is shown that without diligence no profitable results can be expected; but that, on the other hand, gratifying rewards may be anticipated from skilful cross-breeding; and we trust this will prove a sufficient incentive to induce amateurs to take up a pursuit which may be expected one day to give us an opportunity of pur-

chasing some desirable novelties at home, without being compelled to rely on the Continent for the whole of our new Roses.

From the uncertainty of seed ripening in open borders, it is best to plant against or within the shelter of a wall having a south or south-western exposure good seed-bearing varieties having sterling qualities, but which may be improved; such as William Jesse, Duchess of Sutherland, Comte de Montalivet, Madame Laffay, Cornet, Géant des Batailles, Safranot, Yellow China, the new very bright but semidouble yellow Canari, Bouquet de Flore, Comice de Seine et Marne, Madame Nerard, and any other varieties which may have been found to be free seed-bearers, having properties which it is desirable to perpetuate and improve. These may be hybridised by any other good sorts which mature their pollen, or with each other, with the hope of improving shape, colour, &c., as taste may dictate.

To ascertain when the pollen is ripe, close watching, and, in some varieties, opening the petals, will be necessary. On touching the anthers with a camel-hair brush, should the pollen or farina adhere, convey it carefully to the flower you wish to improve, and apply it to the style. Then either nail the blossom to the wall and hang a grape-glass over it, or if the plant is not sufficiently close to the wall, a small board perforated for the foot-stalk of the impregnated blossom to pass through (as in shading Dahlias for exhibition), should be supported under the flower, and over it place a carnation or a small propagating glass as a protector from wind, rain, or insects. This covering should remain till the pod is formed, and it will also hasten and often insure the ripening of the seed.

The heps should remain on the stems till November, then gathered and placed in dry sand till March; the seeds must then be rubbed from the husk, and if from tea-scented varieties, sown in deep seed-pans in a rich compost, and covered about half an inch in depth. The produce of hybrid perpetuals and Bourbons germinate better, and the plants come stronger, if sown in the open ground. They are best sown in drills, covering with light soil, gently patting it with the back of a *clean* spade. On the appearance of the second pair of rough leaves, transplant into good soil, removing the plants carefully with the blade of a knife, putting weakly ones into pots; but mildew must be especially guarded against as one of their most fatal enemies; the seeds must also be protected from mice, which appear to have an especial liking for them.

As some of the seed may not germinate for two or three years, or if Moss-Roses are experimented on, for five or six years, it is desirable not to disturb it when removing the plants; and as many of the latter may show no inclination to flower, the blooming of those which may be thought promising may be hastened by budding, but those not budded be sure to leave unpruned.

A further instance of an amateur's success just comes to my recollection. I saw at a Dahlia show at the Eagle Tavern, some years ago, a fine seedling Rose exhibited by Mr. Mitchell, of Pilt-down near Maresfield, called Lady Shelly; it is a seedling from William Jesse, and a decided improvement, being much darker in

colour and more double: it was, I understand, raised by an amateur in Sussex, and is now being sent out.

Should these few directions, which I have already acknowledged to being but an echo of what has been already so much more ably advocated, be the means of winning devotees to so pleasing a pursuit, all shall be repaid.

Western Rose Nursery, Ealing.

C. G. WILKINSON.

THE DAHLIA. No. II.

IN resuming this subject, it is necessary to state, that we are describing those flowers only which are suitable for exhibition, and which are of the most perfect form; our remarks are therefore intended for the benefit of the exhibitor. A list of sorts best adapted for decorative purposes will be given in our next Number.

The following comprise the best of those sent out last spring:

Sir J. Franklin (Turner). Shaded buff. This is rather a small flower, yet of the most perfect form of any we have: it can, however, be grown to a good average size, in good rich soil, by thinning and disbudding it early. 4 feet high.

Plantagenet (Turner). This variety produces part of its flowers self, of a rosy-purple shade of colour; the majority, however, are beautifully shaded with lilac. It is a noble full flower, with high centre; a good bloom, possessing more petals than any other variety at present grown for competition, yet without confusion. It should be grown from pot-roots when they can be obtained, or very strong plants put out early: it should not be thinned in any way until coming into bloom, and then but sparingly.

If this flower is treated in the manner recommended for Sir J. Franklin, it will completely change its character, and render it useless. 4 feet.

Amazon (G. Holmes). White, deeply tipped with crimson-lake. This, the most beautiful white-ground variety we have, is also made coarse and valueless as a show-flower, if managed as the majority require to bring them into a state of perfection. Free bloomer as it is, the two buds next to the leading one only should be removed, and none of the young shoots taken away till late in the season. Flowers of this variety are best when young; it becomes a little starry as it ages. It is, however, by far the best light Dahlia we have. From four plants we were never without a good bloom; and could often cut half a dozen at one time fit for the best stand that could be shown. 3 to 4 feet.

Bob (Drummond). Bright scarlet. This flower has proved to be much finer than many had anticipated, being the best bright scarlet. It requires to be planted out early and strong, and treated similar to *Plantagenet* and *Amazon*. The first blooms are too large, and inclined to flatness on the face; after which it will be very

useful. The petals are small and smooth, with an abundance of them, which, being well arranged, with its intense brightness, makes it a very attractive flower. 4 feet.

Lilac King (Rawlings). Lilac, a very fine model; the unbloomed centre is occasionally too large for the size of the flower; early, it is very fine; late, it is liable to come thin; average amount of thinning; dwarf habit. 2 to 3 feet.

Miss Caroline (Brittle). White, with a pale delicate tip of rose. The early blooms of this variety are fine, and much the best; late it loses its tip, and is not so attractive. It is also a little uncertain; but when caught leaves nothing to be desired. Should be grown strong, and allowed to carry more than the average amount of blooms. 4 to 5 feet.

Exquisite (Rawlings). Blush; if shaded closely with a pot, it can be produced quite white. This flower is but little known, but is a useful variety, it is uncertain; but, like *Lilac King* of the same raiser, of very fine form in its best state. The petal is stout and smooth; requires good growth, with average amount of disbudding. $2\frac{1}{2}$ feet to 3 feet.

M. Dugn  (Lecocq). A variety from the Continent; dark violet purple; blunt smooth petal, and fine form; a little uncertain in the centre, but a fine flower for exhibition; and a colour much wanted. To be grown freely. 3 to 4 feet.

Robert Bruce (Drummond). Dull Orange; a full-sized deep flower; and will be found very useful, being constant and easily grown. It is not first-class in quality; a bloom of the Duke when caught is superior to it, but has the advantage in constancy over what is evidently its parent. 3 feet.

Bishop of Hereford (Union). Dark maroon. This flower is in but few hands, and consequently but little known. It is a very useful flower, of a class that we are at present very deficient in; medium size, with stout, smooth petals. Strong stiff soil will grow it best. 3 to 4 feet.

Queen Victoria (Wheeler). Yellow, tipped with carmine; a novel flower of fine form, but very uncertain in the centre. It requires strong quick growth: in 1852 it was as constant as it has been inconstant in 1853. Another season may suit it better. It is of fine habit, throwing its blooms high above the foliage, on strong foot-stalks. 4 feet.

Comte de Chambord (Lecocq). Large lilac, full, and of good form. The defect is, being uncertain in the centre; the shade of colour is new, with an uncommon stout petal. 4 feet.

British Queen (Drummond). White, tipped with rosy-purple. Occasionally a fair bloom may be caught; but its general character is to be flat, open, and very starry; yet from being so short of light-ground Dahlias, a few plants may be grown for the chance of a bloom. 3 to 4 feet.

Grand Duke (Turner). Purple lilac; large; requires planting very early, and not to be thinned or disbudded until it is pretty well in bloom, and then but sparingly; good habit. 4 feet.

Transcendant. Buff; a variety from the Continent; good shape; but often has a green hard centre. In some situations it will be a very useful flower.

Beauty of the Grove (Burgess). Buff, veined with pink, and tipped with purple. It is much too quilly; but by allowing it to carry all its blooms, very good ones are often caught, and which are very attractive. 3 feet.

Angelina (Tassart). White, heavily mottled, and tipped with purple. The style of Queen of England. Petals are a trifle too long; but from its novelty a couple of plants may be grown. 3 feet.

Rose of England (Rawlings). A novel and beautiful shade of rose. It is not perfect in form, the centre being a little low; but no flower was more admired during the past season; it is deep, and has the advantage of being constant; should be grown well, and disbudded freely. 3 feet.

The two latter were partially sent out in 1852, and were but little known. The remainder of the flowers sent out in 1853, and proved by us, we have discarded, and are not therefore worth describing. It will be some advantage to know which they are; we subjoin their names: Agnes, Sarah Proctor, Brilliant, Lord Nelson, Miquet, Lady Folkestone, Miss Whale, Queen of Yellows, Annie Neville, Miss Wentworth, Comtesse de Chambord, Stella Napoleonis, Spohr, M. Souchet, Madame Portier, Evangeline, M. Mache noir, M. Duglère, Rival Duke: this latter is by no means a bad flower; but is not dissimilar to the Duke of Wellington. It is not distinguishable in colour, shape, or height from the old variety, and we attribute its being sent out to some mistake.

GREENHOUSE FERNS.

FERNS may unquestionably be considered as one of the most beautifully developed families throughout the whole vegetable kingdom, their light, elegant, feathery foliage being so peculiarly graceful and attractive. When viewed in connection with other plants, they will be found to be not less beautiful than useful, as they flourish in localities where the higher orders of vegetation, or most other things, would barely exist, filling up odd nooks and corners both of hot-houses and gardens; covering dead walls, stumps of trees, rugged rocks, &c., and imparting a verdant and lively appearance to otherwise unsightly or inanimate objects. It is only very recently that Ferns have elicited from horticulturists that share of attention which they so well deserve; simply because the generality of cultivators possessed but a very slight knowledge of them, and their attention had not been directed to so beautiful and interesting a family. In the present improving age, Ferns, like many other particular kinds of plants, are coming very much into "fashion;" every succeeding year they are becoming more and more popular, and we may expect

ere long to find a Fernery in almost every garden of any note throughout the kingdom, as they are easily cultivated at a trifling outlay.

The distribution of cultivated Ferns, with regard to their habitation in the garden, is obviously into three parts, viz. hardy, half-hardy or greenhouse, and hothouse species; although many that are hardy in one part of Britain are not able to withstand the vicissitudes of the climate in another with impunity, as they invariably dwindle away in a short time without some kind of protection. The purport of the present paper is only instrumental, as pointing out a suitable structure intended for their growth, with an enumeration of the half-hardy, or greenhouse kinds, which are within the scope of most cultivators. For this purpose, a house with a north aspect is one of the best situations that could be chosen, and one that can be easily erected at the back of any other plant-stove facing the south. There is one so constructed at Kew, which answers the purpose admirably, and which is likewise found useful during summer to place a few flowering plants in (here and there one), to prolong their duration of flowering; and, at the same time, if tastefully arranged, they are very effective. This house is 90 feet long and 15 feet wide; the glass in both ends and part of the roof is painted, so as to prevent the sun from burning the plants during summer. In the interior of the house is formed a bank of common soil, brick rubble, clinkers, and large burrs to the height of five or six feet against the back-wall, sloping to the front, along which is a shelf covered with the same kind of material. It is heated by two hot-water pipes running along under the shelf; but being only for those Ferns which are from temperate climes, fires are only required from about the latter end of November to the beginning of March, to keep out the frost or to expel any superabundance of damp. The arrangement inside is, as much as possible, an imitation of nature; the plants are mostly all planted out, and grow with the greatest luxuriance. The annexed list contains all the greenhouse species at present cultivated here, with their height, native country, &c., which is of a paramount importance to those whose object is a selection only.

Name.	Height in feet.	Ever-green or Deciduous.	Native Country.
Polypodium :			
incanum	$\frac{3}{4}$	e.	Mexico.
drepanum	$1\frac{1}{2}$	e.	Madeira.
trichodes	5	e.	East Indies.
hexagonopterum	$1\frac{1}{2}$	d.	North America.
rugulosum	3	e.	New Holland.
Nothochlaena :			
tenera	$\frac{1}{2}$	e.	Chili.
alba	$\frac{1}{2}$	e.	Mexico, Peru, &c.
lævis	1	e.	Mexico.
rufa	1	e.	South America.

Name.	Height in feet.	Ever- green or Decidu- ous.	Native Country.
<i>Notholaena (cont.):</i>			
<i>sinuata</i>	1	e.	Mexico.
<i>squamata</i>	$\frac{1}{2}$	e.	"
<i>lanuginosa</i>	$\frac{1}{3}$	e.	South of Europe.
<i>vestita</i>	$\frac{1}{2}$	e.	North America.
<i>distans</i>	$\frac{1}{2}$	e.	New Holland.
<i>Marantæ</i>	$\frac{1}{2}$	e.	South of Europe.
<i>tomentosa</i>	1	e.	Mexico.
<i>Eckloniana</i>	1	e.	Cape of Good Hope.
<i>Gymnogramme:</i>			
<i>leptophylla</i>	$\frac{1}{3}$	d.	Madeira.
<i>calomelanos</i>	$1\frac{1}{2}$	e.	Jamaica.
<i>Loweii</i>	1	e.	Madeira.
<i>Goniopteris:</i>			
<i>Forsteri</i>	1	e.	New Zealand.
<i>Niphobolus:</i>			
<i>rupestris</i>	$\frac{1}{4}$	e.	New Holland.
<i>pertusus</i>	$\frac{1}{3}$	e.	China, New Holland, &c.
<i>linguus</i>	$\frac{1}{2}$	e.	China and Japan.
<i>Drynaria:</i>			
<i>irioides</i>	2	e.	New Holland.
<i>pustulata</i>	$\frac{3}{4}$	e.	New Zealand.
<i>Billardieri</i>	1	e.	New Holland.
<i>Dictyme:</i>			
<i>attenuata</i>	1	e.	" "
<i>Platyterium:</i>			
<i>alcorne</i>	$1\frac{1}{2}$	e.	" "
<i>Adiantum:</i>			
<i>reniforme</i>	$\frac{1}{2}$	e.	Madeira.
<i>capillus-veneris</i>	$\frac{1}{2}$	e.	Britain.
<i>Cunninghami</i>	1	e.	New Zealand.
<i>affine</i>	$\frac{3}{4}$	e.	Norfolk Island.
<i>tenellum</i>	$\frac{1}{3}$	e.	New Holland.
<i>pubescens</i>	1	e.	" "
<i>pedatum</i>	1	d.	North America.
<i>assimile</i>	1	e.	New Holland.
<i>formosum</i>	$1\frac{1}{2}$	e.	" "
<i>cuneatum</i>	1	e.	Brazil.
<i>Cheilanthes:</i>			
<i>micropteris</i>	$\frac{1}{3}$	e.	Quito.
<i>odora</i>	$\frac{1}{2}$	e.	South of Europe.
<i>micromera</i>	1	e.	Mexico.
<i>rufescens</i>	$\frac{1}{3}$	e.	"
<i>tenuis</i>	$\frac{1}{3}$	e.	"
<i>lendigera</i>	1	e.	"
<i>viscosa</i>	1	e.	"
<i>cuneata</i>	$\frac{1}{2}$	e.	"
<i>hirta</i>	$\frac{3}{4}$	e.	Cape of Good Hope.
<i>spectabilis</i>	2	e.	Brazil.
<i>tenuifolia</i>	$\frac{1}{4}$	e.	New Holland.
<i>farinosa</i>	$\frac{3}{4}$	e.	Nepal.
<i>Hypolepis:</i>			
<i>repens</i>	5	e.	West Indies.

Name.	Height in feet.	Ever- green or Decidu- ous.	Native Country.
Platyloma :			
rotundifolia	1	e.	New Zealand.
falcata	1½	e.	New Holland.
calomelanos	½	e.	Cape of Good Hope.
atropurpurea	½	e.	North America.
cordata	1½	d.	Mexico.
flexuosa	3	e.	Peru.
Litobrochia :			
vespertilionis . . .	5	e.	New Holland.
Pteris :			
longifolia	4	e.	Nepal, Jamaica, &c.
semipinnata	2	e.	China.
cretica	1	e.	Mexico.
serrulata	1	e.	China.
crenata	1	e.	"
umbrosa	3	e.	New South Wales.
Kingiana	3	e.	Norfolk Island.
arguta	3	e.	Madeira.
tremula	3	e.	New Holland.
hastata	1½	e.	Mexico.
inframarginalis . .	¾	e.	"
Onychium :			
lucidum	1	e.	Nepal.
Lomaria :			
Patersoni	¾	e.	Van Diemen's Land.
lanceolata	½	e.	New Zealand.
alpina	¼	e.	Cape Horn.
nuda	2	e.	Van Diemen's Land.
procera	1½	e.	" " "
auriculata	1	e.	Cape of Good Hope.
capensis	3	e.	" " "
alta	2	e.	New Zealand.
gilliesi	1½	e.	Brazil.
Blechnum :			
triangulare	1	e.	Mexico.
hastatum	1	e.	Chili.
occidentale	1	e.	Jamaica.
serrulatum	1½	e.	Mauritius.
Doodia :			
caudata	½	e.	New South Wales.
media	1	e.	New Holland.
aspera	¾	e.	New South Wales.
blechnoides	1	e.	" "
Woodwardia :			
radicans	5	e.	Madeira.
Scolopendrium :			
Kribsii	1	e.	Australia.
Diplazium :			
sylvaticum	2	e.	Ceylon.
decussatum	1	e.	Mauritius.
arborescens	1	e.	St. Helena.

Name.	Height in feet.	Ever- green or Decidu- ous.	Native Country.
Asplenium :			
palmatum	$\frac{1}{2}$	<i>e.</i>	South of Europe.
lucidum	2	<i>e.</i>	New Zealand.
compressum	1	<i>e.</i>	St. Helena.
obtusatum	$\frac{3}{4}$	<i>e.</i>	Van Diemen's Land.
marinum	1	<i>e.</i>	Britain.
angustifolium	$1\frac{1}{2}$	<i>d.</i>	North America
flabellifolium	1	<i>e.</i>	New Holland.
monanthemum	1	<i>e.</i>	Mexico.
ebeneum	$\frac{3}{4}$	<i>e.</i>	
reclinatum	1	<i>e.</i>	St. Helena.
flaccidum	2	<i>e.</i>	New Zealand.
bulbiferum	3	<i>e.</i>	
appendiculatum	$1\frac{1}{2}$	<i>e.</i>	Van Diemen's Land.
diversifolium	$1\frac{1}{2}$	<i>e.</i>	Norfolk Island.
furcatum	1	<i>e.</i>	New Holland.
præmorsum	$2\frac{1}{2}$	<i>e.</i>	Canary Islands.
polyodon	1	<i>e.</i>	New Zealand.
acutum	$\frac{1}{2}$	<i>e.</i>	Madeira.
decurtatum	2	<i>e.</i>	
Browni	4	<i>e.</i>	Van Diemen's Land.
axillaris	4	<i>e.</i>	Madeira.
umbrosum	5	<i>e.</i>	Mexico.
Neottopteris :			
vulgaris	$2\frac{1}{2}$	<i>e.</i>	New Holland.
Antigramma :			
rhizophylla	$\frac{1}{2}$	<i>e.</i>	North America.
Cytomium :			
falcatum	2	<i>e.</i>	Japan.
Nephrodium :			
unitum	2	<i>e.</i>	New Holland.
molle	2	<i>e.</i>	Tropics.
Woodsia :			
mollis	1	<i>d.</i>	Mexico.
obtusa	$\frac{3}{4}$	<i>d.</i>	North America.
Cistopteris :			
bulbifera	1	<i>d.</i>	" "
tenuis	1	<i>d.</i>	" "
Lastrea :			
decurrens	1	<i>d.</i>	China.
contermina	1	<i>e.</i>	Tropical America.
eburnea	2	<i>e.</i>	Nepal.
acuminata	1	<i>e.</i>	
elongata	$1\frac{1}{2}$	<i>e.</i>	Madeira.
feneseci	$1\frac{1}{2}$	<i>e.</i>	
glabella	1	<i>e.</i>	New Zealand.
pubescens	1	<i>e.</i>	Jamaica.
decomposita	2	<i>e.</i>	New Holland.
hispida	1	<i>e.</i>	New Zealand.
patens	3	<i>e.</i>	West Indies.
Polystichum :			
falcinellum	2	<i>e.</i>	Madeira.

Name.	Height in feet.	Ever- green or Decidu- ous.	Native Country.
<i>Polystichum (cont.)</i> :			
æmulum	3	e.	Madeira.
pungens	1½	e.	Cape of Good Hope.
vestitum	1	e.	New Zealand.
aristatum	1	e.	" "
proliferum	2	e.	Van Diemen's Land.
capense	3	e.	Cape of Good Hope.
<i>Didymochlaena</i> :			
truncatula	2	e.	Philippine Islands.
<i>Leucostegia</i> :			
immersa	1½	d.	East Indies.
<i>Davallia</i> :			
pyxidata	3	d.	New Holland.
<i>Trichomanes</i> :			
venosum	¼	e.	New Zealand.
radicans	½	e.	Britain.
<i>Hymenophyllum</i> :			
Tunbridgense	¼	e.	"
unilaterale	¼	e.	"
<i>Sitolobium</i> :			
davallioides	3	e.	New Holland.
<i>Balantium</i> :			
culcita	4	e.	Madeira.
<i>Dicksonia</i> :			
arborescens . . . . .	..	e.	St. Helena.
antarctica . . . . .	..	e.	New Holland.
squarrosa . . . . .	..	e.	New Zealand.
<i>Cibotium</i> :			
Barometz	6	e.	China.
<i>Cyathea</i> :			
dealbata . . . . .	..	e.	New Zealand.
<i>Alsophila</i> :			
capensis . . . . .	..	e.	Cape of Good Hope.
australis . . . . .	..	e.	Van Diemen's Land.
<i>Gleichenia</i> :			
dicarpa	¾	e.	Australia.
<i>Mertensia</i> :			
flabellata	1½	e.	"
<i>Lygodium</i> :			
palmatum	2	e.	North America.
articulatum	3	e.	New Zealand.
scandens	4	e.	China.
<i>Mohria</i> :			
thurifraga	1	e.	Cape of Good Hope.
<i>Todea</i> :			
Africana	5	e.	" "

Royal Botanic Gardens, Kew.

J. HOULSTON.

TRIFLES TO BE REMEMBERED.

Now is the time for the amateur, particularly if he is an exhibitor, to look around him and see what is required; which will be, in fact, a general taking of stock.

The Carnation grower will find propagating-glasses that require painting and repairing, stakes painting and pointing, pins straightened, cards cut, and exhibition-boxes painted and varnished. These things are never done so well if deferred until they are wanted, when probably a hinge will be found broken, and some of the tubes leaking.

Shades, such as are used for Pinks, Pansies, and Dahlias, should be painted white. Flower-sticks, particularly the small willows used by the Geranium grower, should be trimmed and tied into straight bundles, and placed in a dry part of the shed near the stoke-hole. Some place them on the flue of the greenhouse; numbers of these are required in May and June, besides those required from time to time in tying the plants out when growing. There is no time for this when the day arrives for preparing your plants for the show. They are also straightened and made lighter by getting them ready now as described.

Old wooden labels should be faced and painted. If new ones are required in large numbers, they can be purchased cheaper than they can be made of Mr. Richard Hill, 51 Richmond Street, Edgeware Road, London, who supplies them of various sizes.

Old pots should be washed, particularly those for blooming Carnations and Picotees in. Glass, whether pits, frames, or houses, should be kept clean.

Blinds or shades should be examined, and set in order; mending those that are worth it, making new ones where required. Hall's garden-netting, manufactured at Manchester, will be found an excellent temporary shading. There are several qualities of this excellent material; it is light, yet durable.

Another trifle, not to be forgotten to insure success, is, look over the stock of plants, and see what is deficient; disappointment often follows delay, as some varieties are soon disposed of. The exhibitor should have a stock of two things—choice plants to be successful, and good temper to be available in case he is beaten.

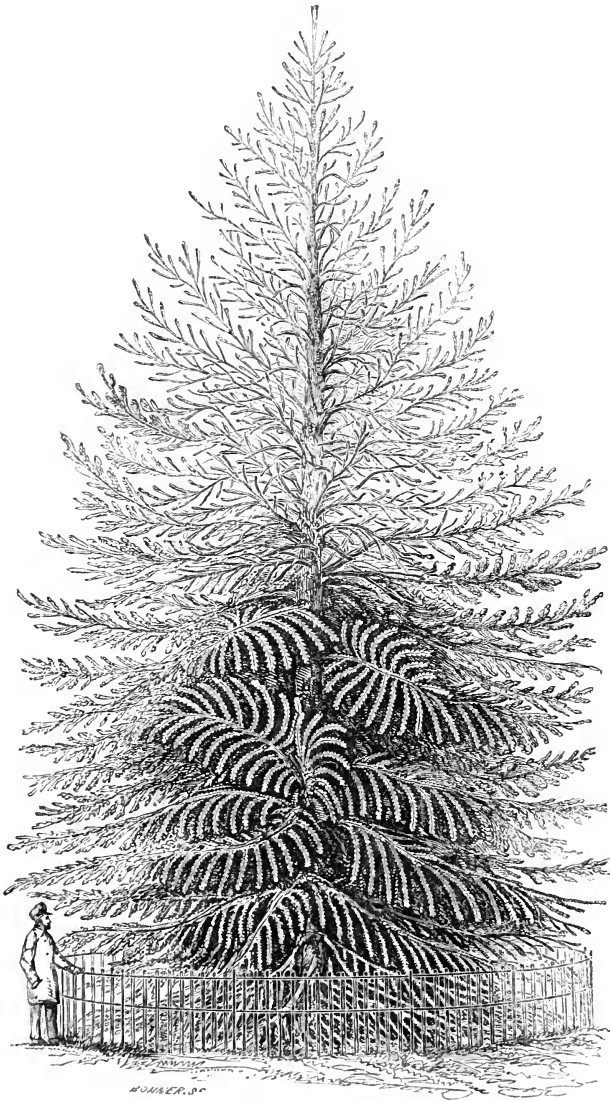
AN OLD HAND.

DESCRIPTIVE LIST OF HARDY CONIFERS.

NO. I. ARAUCARIA IMBRICATA. THE CHILI PINE.

AGREEABLY with the promise made in our last Number to describe and illustrate some of the more popular and interesting kinds of hardy coniferous plants, we now present our readers with a wood-engraving of *Araucaria imbricata*, which, through the kindness of Mr. Frost of Dropmore, our artist has been enabled to take, for our

present illustration, from a tree now growing in the Pinetum at that place, and which is supposed to be the finest specimen in Europe.



The genus *Araucaria*, to which our subject belongs, includes five other species: four of them natives of the Australian group of islands,

and one of Brazil; and consequently all too tender to stand the climate of Britain without protection. *A. imbricata* was first discovered by Pavon on the Cordilleras of Chili; and according to Humboldt, is found principally, if not entirely, on the western slopes of the Andes between 35° and 50° S. lat. Molina describes it as not growing lower than 1500 or 2000 feet from the snow-line, up to which it frequently reaches; but towards its southern limits, large forests are found at a much lower elevation.

From the above description, our readers will gather that the Chili *Araucaria* grows in a wild state on the elevated slopes of mountains, forming immense forests on soil composed principally of *débris* washed from higher elevations, and by the decomposition of underlying rocks. On such soils, however, though presenting but a thin stratum for the roots of trees to penetrate, coniferous plants flourish best, owing, no doubt, in a great measure to the melting of the snow above them during the summer affording a uniform supply of moisture to the roots, without exposing them to the evil which stagnant water produces on the Pine tribe when their roots are for any length of time exposed to its effects.

Of the subject to which our plate refers, Mr. Frost, in a letter to us, says, "This remarkably fine *Araucaria* was, I believe, procured from the Horticultural Society in 1829, and planted out, either in that or the following year, on a raised mound of soil formed on the site of what had previously been a deep gravel-pit; this gives the tree a chance for the roots to extend to a great depth, if inclined to do so. I have no authentic account of the height of this tree when planted, but suppose it was about 3 feet; at the present time it is nearly 40 feet in height, with a trunk measuring 3 feet $7\frac{1}{2}$ inches in circumference at 3 feet from the ground." As will be seen from our woodcut, "the plant is furnished regularly with branches down to the ground, and is altogether a perfect specimen for its age. It is worthy of remark, that Mr. Pince, of the Exeter Nursery, lost a splendid plant of *Araucaria*, from its being deluged through a thunder-storm; the plant being in a very low situation became quite inundated, and perished in less than a month; I am therefore convinced that the *Araucaria* prefers a high situation, perfectly drained, and a soil free from manure. The cold will never injure it, as the tree now described has endured 37 degrees of frost without sustaining any injury."

The above hint affords a valuable suggestion, and as it coincides entirely with our own opinions, the fact should not be lost sight of by those about planting the *Araucaria*. By all means wet or clayey bottoms should be drained thoroughly, so as to carry off not only underground water, but rain-water as well. The plant is not particular as to soil, so that it be porous; but on soils made rich by vegetable manure, decayed leaves, &c., it grows the fastest: we have many proofs that it luxuriates on dry soils, or raised mounds. Water should be freely given during the summer; but our remarks on its native habitat will put our readers in possession of what the plant requires.

The Araucaria is "diœcious," the male and female organs being produced on different plants. According to Pavon, the female tree attains the height of 150 feet on its native soil; while Humboldt* states that it reaches the immense height of 260 English feet, thus rivalling the giant Coniferæ of California and Mexico. The trunk of the tree is stated to be straight, free from knots, and covered with a rough cork-like bark of great thickness, producing a wood of considerable beauty and utility. The male tree is comparatively insignificant, seldom exceeding 50 or 60 feet in height.

From Mr. Frost's description of the Dropmore Araucaria, and our own knowledge of its growth in Britain, we may suppose the average annual growth to be from 18 to 22 inches, when once the plant is fairly established. Mr. Barron states, in his notice of the Chili Pine in the *Winter Garden*, that a plant at Elvaston grew 26 inches in one year.

We cannot conclude our remarks on the Araucaria without noticing the manner in which this tree has been employed in ornamenting garden scenery, particularly as an avenue plant, for which purpose, according to our ideas, few are more inappropriate; the formal appearance the tree will present as it grows up, with its stiff, rigid foliage and candelabra-like branches, issuing from a perfectly straight trunk, will have, we imagine, a singular rather than a pleasing appearance; and as such, we question how far the above character will harmonise with flat surfaces or the general features of park scenery. On the contrary, the peculiar and striking character of the tree especially adapt it for rocky situations and broken-up ground; on steep head-lands jutting into water, or the precipitous banks of rivers; or on elevated spots, where its singular outline can be seen against the sky, are situations, to our mind, better calculated to show the Araucaria to advantage than when planted in long continuous lines on flat surfaces. We, however, by no means object to seeing it planted as single specimens on the lawn or pleasure-ground, nor yet as an architectural tree in some situations near buildings, for which its formal growth would in some cases be appropriate. The plant is now to be procured so cheap that we hope to see much of our woodland scenery enriched by the addition of this strikingly grand tree, as well as its more general use as a lawn-plant.

GOSSIP.

THE decision to which the council of the Horticultural Society came to some months back, to award medals during the autumn and winter months, at their meetings in Regent Street, to meritorious collections of hardy fruits and vegetables, both forced and from the open ground, in addition to a fresh class of plants and flowers, is already effecting much good. The collections of vegetables last spring

* *Aspects of Nature*, Sabine's Translation, p. 167.

having not only consisted of a large number of varieties, but the quality was excellent likewise. Our readers are, no doubt, aware, that, in these classes, foreign productions compete with those of English growth; and the result was, with one or two exceptions, favourable to our own produce. At a recent meeting of the society, when Pears were the subject for competition, the finest fruit from English gardens was pronounced quite equal to French produce, with the advantages of their superior climate, thanks to Messrs. Snow and Ingram for their proving our ability in this department of gardening. The resolve to admit foreign productions was a most wise and liberal one on the part of the society; and a friendly rivalry will do much to foster and encourage improvements in horticulture, and to elicit the best methods of culture, whether English or continental.

We should like to see an Anglo-French Horticultural Society established for the above purpose.

SELECT LIST OF PLANTS BLOOMING AT THIS SEASON.

STOVE.	GREENHOUSE.
<i>Aphelandra cristata.</i>	Camellias, of sorts.
" <i>aurantiaca.</i>	<i>Erica hyemalis.</i>
<i>Æschynanthus pulcher.</i>	" <i>caffra.</i>
<i>Æchmea fulgens.</i>	" <i>colorans.</i>
<i>Begonia nitida.</i>	" <i>Boweana.</i>
" <i>spathulata.</i>	" <i>autumnalis gracilis.</i>
" <i>albo coccinea.</i>	" <i>vernix coccinea.</i>
" <i>Prestoniensis.</i>	<i>Epacris nivalis.</i>
" <i>fuschioides.</i>	" <i>miniata.</i>
" <i>incarnata.</i>	" <i>Attleana.</i>
<i>Clenodendron splendens.</i>	" <i>delicata.</i>
<i>Eranthemum pulchellum.</i>	" <i>hyacinthiflora.</i>
<i>Euphorbia fulgens.</i>	" <i>Wilmoreaana.</i>
" <i>splendens.</i>	" <i>purpurea.</i>
<i>Epiphyllum truncatum.</i>	" <i>imprensa.</i>
" <i>violaceum.</i>	" " <i>alba.</i>
<i>Franciscea Hopeana.</i>	" <i>limata.</i>
<i>Goldfussia anisophylla.</i>	" <i>splendida.</i>
<i>Gesneria picta.</i>	<i>Brugmansia bicolor.</i>
" <i>zebrina.</i>	<i>Coronilla glauca.</i>
<i>Ixora coccinea.</i>	<i>Chorozema Lawrencianum.</i>
" <i>crocata.</i>	<i>Cytissus racemosus.</i>
" <i>rosea.</i>	<i>Cyclamen persicum.</i>
<i>Justicia carnea.</i>	" " <i>rubrum.</i>
" <i>speciosa.</i>	" " <i>coum.</i>
<i>Manettia bicolor.</i>	<i>Daphne indica rubra.</i>
<i>Poinsettia pulcherima.</i>	" " <i>alba.</i>
" <i>alba.</i>	<i>Fuschia seratifolia.</i>
<i>Rondoletia speciosa.</i>	<i>Primulas (of sorts).</i>
<i>Jasminum sambac.</i>	<i>Mignonette.</i>
" " <i>pleno.</i>	<i>Neapolitan and Tree Violets.</i>
" <i>grandiflora.</i>	<i>Styphelia tubiflora.</i>
<i>Stripocarpus Rexi.</i>	

FORCED MISCELLANEOUS.

Amaryllis, of sorts.
 Azalea triumphans.
 „ delecta.
 „ indica alba.
 „ Smithi coccinea.
 Calla aethiopica.
 Tahatian Orange.

Common Orange.
 Deutzia scabra.
 Rhododendrons of sorts.
 Lily of the Valley.
 Narcissus of sorts.
 Van Thol Tulips, ditto.

HARDY PLANTS.

Heleborus nigricans.

Jasminum nudiflorum.

DESCRIPTIVE LIST OF FRUITS.

PLUMS.

(Continued from page 278, last vol.)

14. *Green Gage*.

Synonyms: Isleworth Green Gage, Wilmot's Green Gage, Brugnion Gage, Wilmot's New Green Gage, Wilmot's Late Green Gage, of English Gardens.

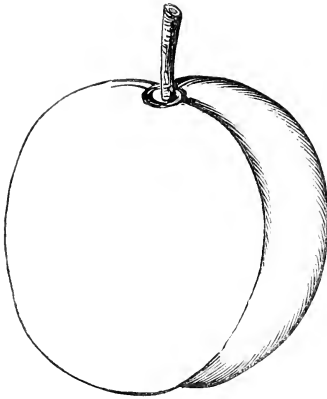
This old favourite, which is every where held in high repute, and universally admitted to be the richest of all Plums, is too well known to need much description here; but at the same time it is requisite that it should be noticed, owing to the existence of some varieties of less merit bearing a close resemblance to the original, except that their fruit is of a more yellow cast (especially the flesh), and not so rich as that of the true sort, which is of a dull yellowish green, with a shade of brown on the exposed side, mottled with dingy red. The habit of the trees is similar; but the true kind has dark-green glossy foliage, and less crimped than that of its varieties.

The Green Gage originally came from France, where it is called *Reine Claude*; it was brought to this country during the last century by a family of the name of Gage, hence its name.

15. *Lucombe's Nonsuch*.

Fruit above the middle size, of a roundish oval figure, and usually compressed on one side. Skin yellowish green, with a few orange streaks on the sunny side, and spread with a thin pale bloom. Stalk short, stout, and set in a deep cavity. Flesh greenish yellow, a little firm, and adheres considerably to the stone: if thoroughly ripened it is very juicy, saccharine, and rich, with an agreeable acid flavour. Ripens the end of August and early part of September. It is a very good table fruit, and makes a rich preserve.

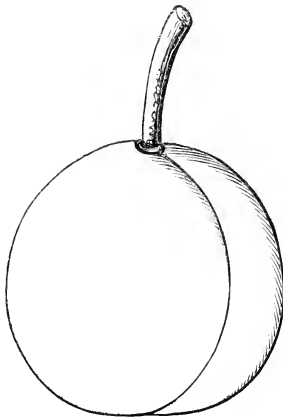
The trees produce good crops as standards, provided the soil is dry and not over rich, otherwise they grow too vigorously, which should always be avoided, if possible, in the cultivation of the Plum, and are liable to drop their fruit during the process of *stoning*. This Plum was raised a few years ago by Mr. Lucombe, of the Exeter Nursery, and proves a very good variety, worthy a place in any moderate-sized garden.

16. *Huling's Superb.*

Synonyms : Gloire de New York, Keyser's Plum.

This is a new Plum from America, raised by Mr. Keyser of Pennsylvania, and was first brought into notice by Mr. Huling of the same state. The fruit is large, and of excellent quality; and the tree has the reputation of being very productive. Fruit of the first size, round, a little inclining to oval, with a distinct suture. Skin of a dingy greenish yellow. Stalk about three quarters of an inch long, set in a small even shallow cavity. Flesh greenish yellow, resembling

that of the Green Gage, but more firm in texture; very rich, with an agreeable sprightly flavour, and separates clean from the stone. A dessert Plum, ripening the beginning of September.

17. *Coe's Fine Late Red.*

Synonyms : Coe's Late Red, St. Martin, St. Martin Rouge.

Fruit about the middle size, globular, narrowing slightly near the stalk. The suture is very shallow, but distinct, and extends from the base to the apex. Stalk three-fourths of an inch long, and set without depression. Skin purplish-red on the exposed side; the other portion of a lighter colour, studded with small obscure specks, and covered with a blue bloom. Flesh dull yellow, a little firm but juicy; very rich, and has a strong vinous flavour; parts clean from the stone, which is small and oval. The trees are hardy and prolific;

but as it is a late autumn kind, it should occupy a place on an east or west wall, where the fruit will keep sound till the end of November, or even later, should the weather be dry.

This Plum deserves to be more extensively cultivated than it hitherto has been, as it is the latest of all kinds, and is very productive and good in quality.

Frogmore.

J. POWELL.

CALENDAR FOR THE MONTH.

Auriculas. These plants will remain quiet another month. The directions given in our last should be attended to. If the frames are in an exposed situation, more covering will be required during severe weather. The following varieties were the best that came under our notice last season: *Green-edged*, Beeston's Apollo, Dickson's Duke of Wellington, Matilda, Headley's King James, Heath's Emerald, Lightbody's Lord Lynedoch, Oliver's Lovely Ann, Page's Champion. *Grey-edged*, Buckley's Surprise, Chapman's Sophia, Cheetham's Lancashire Hero, Fletcher's Ne-plus-ultra Grime's Privateer, Headley's Stapleford Hero, Kenyon's Ringleader, Syke's Complete, Waterhouse's Conqueror of Europe. *White-edged*, Cheetham's Countess of Wilton, Clegg's Crucifix, Heap's Smiling Beauty, Hepworth's True Briton, Summerscale's Catherina, Taylor's Glory. *Selfs*, Berry's Lord Primate, Dickson's Apollo, Maltby's Oxonian, Netherwood's Othello, Redman's Metropolitan, Smith's Mrs. Smith.

Azaleas. Water must be sparingly given, and only when the plants are dry. Give air daily, according to the state of the weather; remove decayed leaves, and any plants infected with thrips should be cleaned at once, by fumigating them with tobacco three or four times, with intervals of a day or two between.

Bedding Plants. Damp is the principal thing to guard against at this season; place delicate plants likely to suffer most in the driest situations; give air liberally in mild weather—removing the sashes entirely on sunny days (except in frosty weather)—to dry the surface of the pots. Should mildew appear, dust the infested plants with sulphur. Water will scarcely be wanted, except in cases of extreme dryness, or unless the plants are in airy houses. Protect from frost by covering with mats, &c. by night.

Cinerarias. Plants for exhibition should receive their final shift into 8-inch pots—the size required by the principal societies. During this month give the plants plenty of room, and keep them near the glass. The side-shoots must be tied out as the plant progresses; this keeps them from drawing, and, if done properly, forms dwarf, handsome plants.

Carnations and Picotees. Keep the frames open on all occasions when the weather will permit; water only when absolutely necessary. A good fumigating during this month is very beneficial towards keeping aphides under. It gives the plants a yellow appearance for a time, but they soon recover, and are none the worse for it. The compost for these plants should be well turned and frosted during the winter, keeping snow from it.

Cold Frames. Read our remarks above on bedding-plants, as they apply equally here. The bottom of cold-frames, for wintering plants, should be coated over with asphalt or coal-tar, and laid with sufficient dip, to enable waste water to pass off quickly, by which the surface soon becomes dry; whereas, when it is absorbed by a porous material, it is again given off slowly, and causes a damp, unhealthy medium for plants to winter in.

Dahlias. Choice new varieties, if a large increase is desired, may now be put to work in a steady heat. Roots of others, if not keeping well, or rotting down the stem, may also be started; for once fairly started they are safe; and if but a few plants are required from them, they may be placed in a cooler house. Pot-roots are the most easily wintered; these should remain under the stage of the greenhouse till March, when they should be started. If not already done, trench the ground intended for Dahlias next season, which should remain thrown up rough till May.

Ericas. Clean glass. Good ventilation in mild weather, without exposing the plants to direct currents of cold air, and moderate waterings when requisite, embrace the principal points of treatment for the present month. Avoid much fire-heat; as a substitute for which keep up the temperature of the house by some protecting material. A canvas, or even a calico screen, placed over the roof, will do much in this respect; and a temperature three or four degrees above the freezing-point is sufficiently high, if accompanied with dryness.

Flower Garden. Keep the turf, edgings, and gravel-walks clean; well roll the latter after frost or rain, to keep them firm; let the borders and beds, if not planted up, be kept neat by raking over the surface. Protect half-hardy plants from frost with Fern or branches of Evergreens stuck round them, and cover the roots of such plants with sawdust or old tan for the like purpose.

Fruit, hardy. Apples, Pears, Plums, and Cherries should be pruned in mild weather, and those against walls or espaliers afterwards nailed or tied in. Cut away the old wood from Raspberry stools, selecting from three to five of the strongest canes for bearing; these may be tied up to stakes or rods, but not shortened back till the spring. Defer pruning Gooseberry and Currant bushes till spring, as many of their buds are often destroyed in hard weather by sparrows and other hard-billed birds. All kinds of hardy fruit-trees may be planted in open weather, if their roots are covered directly afterwards with half-decayed dung or litter, to protect them from frost.

Fruit, forced. Those who want ripe Grapes in the end of May or early in June must commence forcing at once. If the border is outside, it will assist the roots to cover it with warm dung, to which additions should be made, so as to maintain a mild heat on the surface; protect this covering from rain and snow by thatching or throwing a tarpaulin over it in bad weather. For forcing thus early the Vines should have been pruned for some time; and now they will require dressing and training. Start with a temperature of 45° by night, increasing it a degree per week. Damp the Vines daily, and keep the atmosphere of the house moderately moist; give air each fine day, and let the thermometer range 10° to 12° higher by day than by night, with a slight addition during sunshine. Prune, dress, and train; succession vineries and Peach-houses to be in readiness when required. To obtain early Strawberries, plunge some of the earliest potted plants in a mild bottom-heat under glass; this will bring them forward gently, and towards the end of the month they should

be removed to a situation with a moderate temperature, and fully exposed to light, which will assist them to throw up strong trusses of bloom. Sow Cucumbers and Melons for the first spring crops in a good bottom-heat; when the plants are up, keep them near the glass, in order to encourage a stocky growth.

Forcing Flowers. Where Roses, Lilacs, Ductzias, American plants, &c. are forced for decorating the greenhouse or sitting-room, well-established plants of the above should be plunged in a very mild bottom-heat, to forward them; a deep frame or low pit answers well for them. As the buds develop themselves remove them to a warmer house; keep them near the glass, and frequently damp their foliage. Hyacinths, Narcissus, Tulips, &c., with Lily of the Valley and *Dielytra spectabilis*, may have the same treatment.

Fuchsias. These, after cutting them in and re-potting them in fresh soil, may now be placed in a gentle moist heat to start them. Young cuttings strike very readily at this season, and will make good plants for June and July. The Fuchsia is easily grown, but succeeds best in a rich soil. Seed should be sown this month.

Greenhouse. Look at our remarks on Ericas; where soft-wooded plants are principally grown a night temperature of 40° to 45° , with increase of 10° by day, will be requisite. Camellias, as they swell their flower-buds, may be encouraged by weak manure-water. Train climbing plants as they advance to their respective supports, and guard against damp and mildew by proper aeration and the application of sulphur.

Hollyhocks. Cuttings will require careful watching this month, to prevent their damping off. Go over them daily, and strip them of decayed leaves, and dry them when the weather will admit of its being done without injury to the cuttings. The old stools and established plants will remain nearly dormant for another month, and will take no harm if wintered in a suitable pit or frame; a cold, damp situation should be avoided. They winter well in the front of a greenhouse; but this cannot often be spared for the Hollyhock, which is any thing but an interesting subject in the winter months.

Kitchen Garden. Should frost occur, wheel dung and compost to the vegetable ground, and rough-dig or trench vacant ground. A crop of early Peas and broad Beans may be sown in a warm situation. Sow likewise a few early frame or short-top Radishes and Horn Carrot for an early outdoor crop; cover the beds with straw or litter till the plants appear. Give the autumn-planted Cabbages a dressing of soot on a moist day. Protect Parsley, young Lettuce, and Cauliflower plants in frosty weather, and give air to those under glass whenever the days are mild, to keep them from drawing.

Orchids. These will be mostly in a state of rest, and merely want a comparatively cool and dry atmosphere till they commence their new growth. As soon, however, as they show indications of starting, let them be potted or re-dressed at once, or the newly-formed roots, if allowed to grow any length, would probably get injured afterwards. Those kinds which grow, more or less, at all seasons will require a night temperature of 60° , with an increase of

10° by day. Syringe the blocks, baskets, &c. each sunny day, and keep the internal air moderately humid by damping the pipes as occasion requires.

Pansies. The soil for blooming these in pots—which should have been prepared in summer—must be well-turned and kept tolerably dry, in readiness for use the first week in February, when they require their final repotting, pegging out the shoots at regular distances. The plants should be raised near the glass, and grown as hardy as possible. The frames should only be closed during very bad weather.

Pinks, after severe weather, such as we have experienced in December, should be gone over on a fine day, pressing firmly in the soil such as may have been loosened by frost. Very choice varieties should be protected from cutting winds, by placing small propagating-glasses over them during their continuance, removing the glasses as often as it is fine.

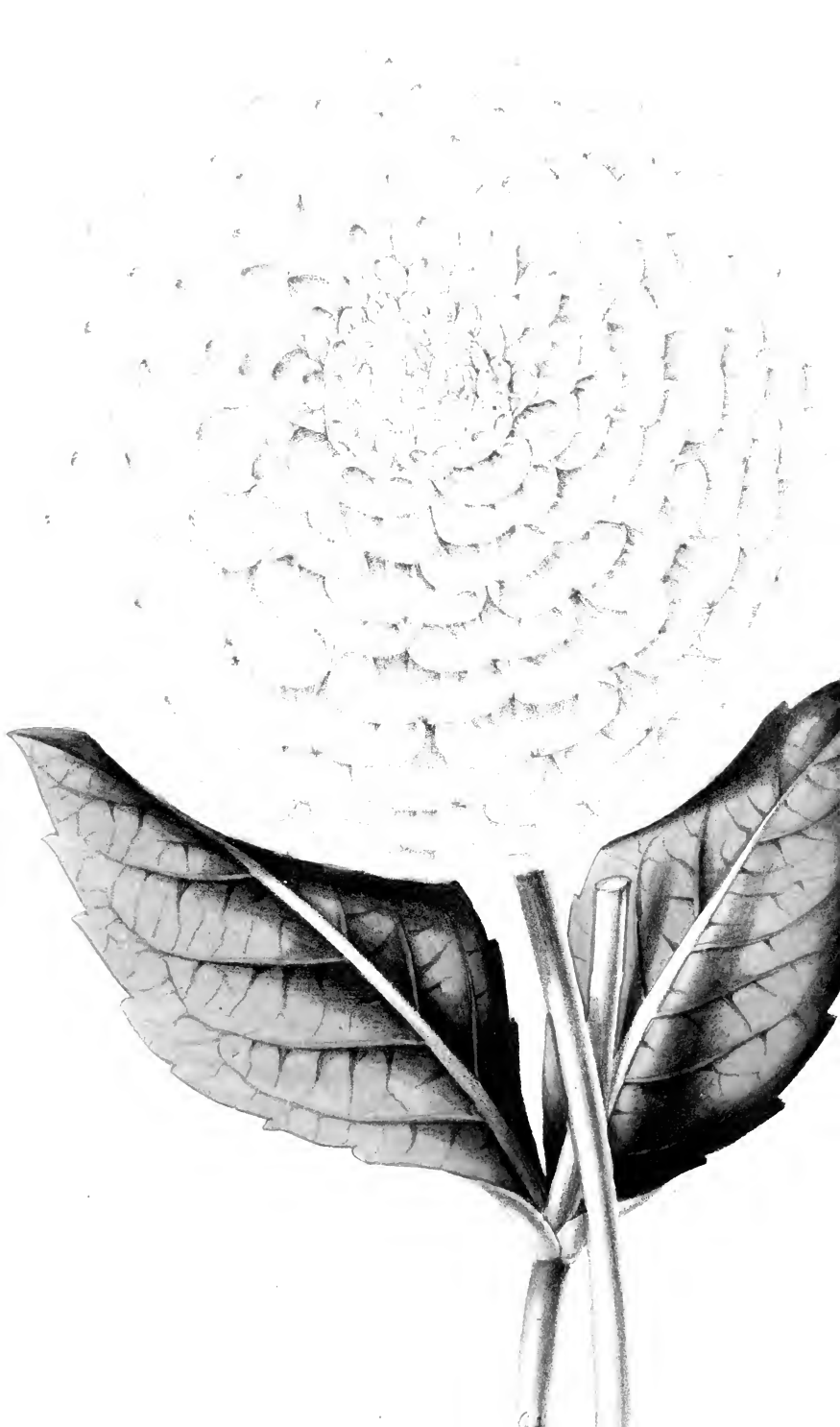
Pelargoniums. This is a convenient as well as proper time to tie out the shoots of plants intended for specimens. The method of doing this has often been described in the *Florist*. Keep the soil in a good state for repotting the July plants, which should be done towards the end of the month. Watch narrowly for green-fly, and fumigate the moment it is observed. All dead foliage should be removed as it appears. Fancy varieties require similar treatment; they do not draw, however, if the house is kept a little closer than is desirable for other kinds of Pelargonium. *Seedlings:* Give these plenty of room, and water them but sparingly, destroying those that are “blind,” or cankered with disease.

Roses. Beds of Tea-scented or China on their own roots should be covered with three or four inches of ashes or old tan, or with five or six inches of moss. Worked plants of Tea-scented, if in an exposed situation, had better be taken up and placed under a south wall, covering the heads with litter; or if not removed, tie Fern or cuttings of Evergreens on their heads, or cover them with a cap of calico painted and strained over a dome made of split Hazel. These will last for years. Lose no time in planting as soon as the frost is out of the ground.

Stove. No attempt should be made to excite a premature growth at this season by keeping a high temperature. From 55° by night to 63° by day should be the highest limits. At the same time the atmospheric moisture should be reduced considerably; water with great caution. *Ixoras, Allamandas, &c.,* if wanted to bloom early, may be plunged in bottom-heat towards the end of the month.

Tulips. These not having yet made their appearance above ground, will only require the ordinary treatment of covering during rain or snow. The frost must be severe indeed to injure them before they make their appearance, particularly if the beds have been kept dry, as directed.





THE DAHLIA.

[Plates 83 and 84.]

THE Dahlia has already been so often noticed in our pages, and its history and culture so minutely detailed, that all we have to do on the present occasion is merely to record the merits of the two varieties which embellish our present Number.

These, Fanny Keynes and Rachel Rawlings, are flowers of great merit, and have been selected by the raiser, Mr. J. Keynes of Salisbury, from among sixteen thousand seedlings. Fanny Keynes was raised from Triumphant, and partakes of the fine erect habit of that variety; but it is not, however, so tall, the height being about 4 feet. The flowers are large, uniform, and stand out nobly from the foliage on strong footstalks. The colours, so truly and beautifully delineated by Mr. Andrews, are of the most delicate shade. The flowers being of full size, it requires but little disbudding or thinning of the shoots.

Rachel Rawlings may be termed a chance flower, its parentage not being known. Like the above, it is quite new in colour, and of the most perfect form; indeed, in this respect very few flowers come near it; but it is not so certain as the tipped variety, which is one of the most constant flowers with which we are acquainted. Both should be in the possession of every grower of this noble flower, which, and we are pleased to say it, stands as high now in the estimation of the public as ever it did at any previous period of time. No one who witnessed the demonstrations at the Brighton and London Exhibitions could for a moment doubt this fact. The success of the two flowers under notice at the National Floricultural Society, and at all the other great meetings, has fully established their merit; and we congratulate Mr. Keynes, who is one of our oldest and most successful cultivators of the Dahlia, on the possession of two such beautiful flowers.

FRAME-GARDENING.

NO. II. GLADIOLUSES, IXIAS, ETC.

CONTINUING our subject, we intend in the present Number treating on the above class of plants, as they are well adapted for growing in a cold pit, requiring but little trouble in management, further than protecting them from frost, and exposing them to the full influence of light and air while in a growing state.

The above plants came, in the first place, from the Cape of Good Hope; and we class them together, as they require much the same treatment. Along with Nerines, Vallotas, and others, they are usually termed Cape bulbs; their dissimilar habits may be accounted for by the diverse situations in which they are found growing in a wild state, but still under the bright sun of Southern Africa; yet notwithstanding this, it is remarkable how soon plants, when under cultivation, adapt themselves to the altered conditions imposed on them, by assuming a character differing in many respects from their normal one, and conformable to the climate and mode of culture to which they are subjected.

The plants contained in our list, with few exceptions, have been obtained by hybridising the original species and their progeny; and thus a race of plants has been produced, surpassing the originals both in the size and brilliancy of their flowers, and vigour of habit. Gladioli, Sparaxis, and Ixias have been operated upon, with what results the more recent hybrids of the above can easily testify; and we see no reason why Nerines, Vallotas, Tritonias, &c. should not receive the same attention at the hands of those very indefatigable cultivators, whose labours in this department have added so many splendid plants to our collections. Much may yet be done in this line, with a class of flowers becoming, through their industry, more popular every day.

We shall confine ourselves to enumerating a few only of each. Many nurserymen have catalogues naming the more striking hybrids, and to those making selections, we refer them with confidence, as they are got up with care, and the descriptions are true. The following will serve as a guide for purchasing :

Gladiolus cardinalis.	Sparaxis tricolor.
" Colvilli major.	" " grandiflora.
" insignis.	" variabilis.
" ramosus.	" versicolor.
" Queen Victoria.	" alba, &c.
Hybrids from Cardinalis.	Ixia aulica.
" " Ramosus.	" conica.
" " Gandavensis.	" amethystina, &c. (or crocos-
(These bloom in succession from June	mia).
to October, as they are placed.)	Tritonia aurea.
Sparaxis bicolor.	" crocata grandiflora.
" bulbifera.	Anisanthus splendens, &c.
" nigricans.	Antholyza æthiopica, &c.

We are no advocates for complicated composts; pure turfy loam of a sandy nature, and silver-sand, will suit most of them; a little peat may be added for *Sparaxis* and *Ixias*, and a small proportion of well rotted cow-manure.

The best time for potting will be directly the leaves die down. This, however, is not important with many (except with *G. cardinalis*, and hybrids from it, and *Tritonias*); and a few may be potted at intervals of two or three weeks from August to October, to insure a succession of bloom; while, however, the bulbs are at rest, keep them in the pots in which they grew, merely keeping them dry, to prevent exciting them. The number of bulbs planted will depend on their size and the pots in which they are grown; three, five, seven, or more may be placed in proportionate-sized pots. Fill the pots (which should be well drained) with the rougher parts of the compost to nearly the rim, on which insert the bulbs, and cover with finer soil. For *Sparaxis*, &c., a little more sand should be used. When potted, place them in a frame on a dry bottom, and cover an inch or two with ashes, or saw-dust. As the plants appear, remove this from the surface of the pots, and raise the pots, so as to be near the glass; keep the glass clean, and protect by a mat in frosty weather; water will now be occasionally required, and air daily in mild weather. As the days lengthen remove the sashes entirely each fine day, and permit air to remain on by night. This will keep the foliage strong enough to support the flower-spikes of the taller growing sorts, without staking. Water must now be given freely, exposing them at times to warm rain. The earliest potted *Sparaxis*, &c. will commence opening their flowers towards the end of April, and may then be removed to the windows of a sitting-room, or any situation tolerably light, protected from rain, when they will continue to produce a succession of flowers of the richest hue for some time. By the middle of May, the plants having been freely exposed to the weather for some time, should be removed to a spot sheltered from high winds, but fully exposed to the morning or mid-day sun, plunging the pots in some dry material; water will be required daily, occasionally giving weak manure-water. If a proper selection of *Gladioli* has been made, some part will commence opening their flowers early in June, when they become available for decorating rooms, verandahs, balconies, &c., and form most effective plants for baskets, vases, tazzas; whether indoors or out, their sword-like leaves, and rich-coloured flowers, are never more effectively brought out than in the above way, particularly when edged with some trailing plant to hang over the edge. When their blooms fade, cut the flower-stems away, and place the pots in the full sun; reduce the quantity of water as the leaves ripen, and finally lay the pots on their sides, with the plants to the south, to complete the ripening of the bulbs, when the pots may be stored away out of the reach of wet, till wanted for potting.

We must, in concluding, remind our readers that nearly all the plants treated on will succeed in the open border when properly prepared; but our object in treating them as pot-plants is to create

a source of interest in their behalf with parties whose gardens are limited, but who nevertheless can cultivate these, so as to decorate and add a charm to situations otherwise uninteresting, while even among the gayest flowers of summer, these plants possess a beauty peculiarly their own. S.

CELERY.

THIS most useful winter esculent is not at all times met with in the best possible condition, nor can it be while so many varieties having a tendency to become hollow or pithy are cultivated. Certain soils and localities may favour this defect; but when we meet with a variety naturally solid under any circumstances or mode of culture, we are led to believe that the fault just complained of lays more in the variety grown than in the kind of treatment it may receive.

The few remarks I have to make on this subject, therefore, are not made with a view to describe any particular mode of culture, but rather to direct attention to particular varieties now in cultivation. There are at the present time a great many kinds of Celery grown, and all have their patrons, or some of them would soon become extinct; and if each cultivator, after a careful trial of the comparative merits of each variety, has retained the best and most useful for his purposes, he is quite right in doing so, and may assist others by giving the public the benefit of his experience; which I shall now proceed to do, trusting that others in different parts of the country may be induced to do the same.

First, then, it is an indispensable quality in celery that it should be solid; second, that it should be sweet and crisp; and third, that it should remain long in perfection. The only varieties which I have found to possess these qualities anything like constant is one known in this neighbourhood under the name of "Dwarf, late White Celery." Unfortunately it has never been made known by the trade; at least, if it has, it has been so but very partially. It is of a dwarf, robust, compact habit, and can be had good ten months out of the twelve; the space between the rows may also be eighteen inches less than that for any other variety. I should advise all who have not grown it to give it a trial; and I am certain of its giving them satisfaction. It can only be had true from a few establishments at present. Those who have a stock of it should, therefore, make it known; for of all others it is certainly the Celery best calculated to meet the extensive demand of a gentleman's establishment, and to give entire satisfaction as regards flavour.

Stoke Park, near Slough.

A. BOUSIE.

[We can confirm Mr. Bousie's opinion from our own experience. We find that those who have once grown it care but little for any other variety. It is most desirable that it should have some distinctive name; and we suggest that in future it be called "Incomparable." The raiser of this very useful variety is unknown.—ED.]

THE ARAUCARIA IMBRICATA ON THE ANDES OF SOUTH CHILI.

AGREEABLY to promise, I send you a translation of Dr. Poeppig's account of his excursion to the native forests of this noble tree from the village of Antuco, situated in lat. 37° S., at a considerable elevation on the western declivity of the chain of the Andes which separates southern Chili from the country of the Pehuenches and other tribes of Indians of a wild, nomadic, and lawless character. Your readers will find that it confirms the observations made upon the soil and situations best suited to it in your article upon this prince of the Conifers at p. 22.

“The Araucaria, a tree which supplies the Indians of the Patagonian Andes with a great part of their subsistence, does not grow in the low country, and observes a distinctly defined limit in its extension northwards. Sickly specimens are, indeed, to be seen in various parts of the province of Concepcion, which have been planted by hand, but even there it is extremely difficult to rear; and out of a number of seeds sown at Talcahuano only two vegetated, and these soon died. Mountain air, a ruder climate than that of the lower regions, and more especially a rocky soil, appear to be what it most requires. Not a single one grows in the immediate neighbourhood of Antuco; and to gratify my anxious desire of seeing a forest of these majestic trees, a laborious expedition was necessary.

“Between Antuco and the fort of Tvun-Leuvu opens a short, narrow, thickly-wooded valley, of rapid ascent, which might be regarded as a continuation of the ravine through which the Rucue flows, were they not separated by a broad ridge. A brook called Quillay-Leuvu (the Quillay stream) runs at the bottom, and gives it its name. Accompanied by a countryman, who had acquired some acquaintance with the mountains in better times, when the Antucans were possessed of large herds of cattle, I set out, on a path now totally disused, and known but to few. It was impossible to penetrate the dense vegetation of the valley on horseback, and we therefore went on foot, taking with us only a woollen covering each and some provisions. Similar obstructions every where present themselves to the stranger who, led by curiosity or scientific interest, abandons the few roads which connect the scattered settlements of the Andes. The American collector acquires not his treasures with the same facility as in Europe; and the possession of many insignificant plants is only to be won by perils and exertions not required in our part of the world. Around the little village or solitary hut where the wanderer has taken up his temporary abode extends the uninhabited wilderness, intersected perhaps by paths traceable only by an eye accustomed to such localities, or destitute of any thing to guide him but his own conjectures. The natives, whose occupations seldom lead them far from the immediate neighbourhood of their own village, and whom curiosity never leads to explore the unfrequented recesses of the forests and mountains, are for the most part

totally unacquainted with them, and can seldom aid your inquiry even by description. The adventurer rarely finds any one willing to accompany him; or if he does, is often left, through their timidity and haste to be at home again, to pursue his way alone. If, however, he has acquired the hardihood derived from experience, and is well acquainted with the peculiarities of the country, he may pursue his course without fear; and when he has triumphed by his own unassisted energy over danger and difficulty, will find, in the feeling of independence and confidence in his own powers, an ample compensation for any unpleasantness which may at first seem to arise from his solitary position. The thought that he may perish by the lingering death of hunger, should any accident befall him to prevent his return, in places where no one would ever seek for him, or if seeking, would hardly find him, deters him not; nor, indeed, does it often enter his mind, when, after much danger, he has reached the top of some lofty cliff, or dived to the bottom of some deep, dark dell, which the foot of man has never entered, and finds his exertions rewarded by a harvest of new and beautiful acquisitions.

“At the lower end of the valley a fire had been raging, which had left the bare trunks of the trees standing destitute of their bark, and in many instances half charred. In this state the wood is much altered in grain and colour, and is improved for working purposes, but becomes unserviceable as fuel, and is known by the name of Pellin. In the uninhabited forests of the Andes, fires often break out from causes altogether unknown, and consume every thing above them, till they reach the low and impenetrable thickets which border the limits of the perpetual snow. After these conflagrations no lofty trees ever grow again; but a dense underwood springs up around the few scattered trees that have escaped. The change which takes place in the vegetation after these catastrophes, in all parts of America, is very remarkable. In Pennsylvania, the few remnants of the original forest which the axe has spared present the appearance of a park clear of underwood. But should a portion be destroyed by fire, Rhododendrons spring up, especially in the mountains, making a beautiful appearance when in flower, but forming an impenetrable thicket. Where the trees have been entirely destroyed by the raging element, the Scrub Oak makes its appearance, an annoyance to the sportsman, and the farmer's worst enemy; for its roots run so deep, and are so productive of shoots, that it is with the greatest difficulty that they can be extirpated. Still more striking are these changes in the warmer countries of this part of the world. In Cuba, a fearfully stinging arborescent Nettle (*Urtica baccifera*), the odious Psychotria, the Pepper-plant, and other unsightly weeds, take possession of the ground wherever a wood is burned; and, unless overcome by careful culture, an entangled and impervious growth of thorny Smilaces, Ipomæas, and other trailing plants, establishes itself. The transmigrations which take place in the Andes of Peru and the virgin-forests of Maynas, from a similar cause, will be described elsewhere. In Chili, the powerfully-stinging Loasæ, with upright or creeping stems, are the first to make their appearance after a con-

flagration, and are soon followed by shrubs with prickly seeds that stick to every thing—by *Acænæ*, *Unciniæ*, and many others. Next comes the Colligue, an arborescent gramineous plant, as peculiarly remarkable in many parts of Chili as the Bamboo in the warm regions of Asia, or the endless thickets of the climbing *Scleriæ* of tropical America. The stems shoot in numbers from a creeping root, and in rich soil rise to the height of 12 to 18 feet, covered through their whole length with bunches of sappy, green leaves, and a hard, polished, yellow rind that resists the knife. They are very elastic, and recoil with a smart stroke if carelessly pressed down. The Colligue is found almost every where from the sea to the highest Andes; but dwindles near the snow-line into a low bush, through which it is difficult to make one's way without falling, as the smooth stems stretching along the ground are extremely slippery to tread upon. To the Chilian this plant is in some respects as useful as the Bamboo to the Asiatic; and his dwelling is often made entirely of it. But it does him harm in a still greater degree when it makes its appearance in his newly-ploughed field, where perhaps some pieces of the root have remained after the clearing away of the forest. Its shoots come up amongst the young corn in spring, and are a great hindrance to the harvest in autumn; and the extirpation of them is almost impossible, as the smallest portion of root will grow and produce a fresh succession.*

“The great number of fallen trees obliged us to make a long circuit along the steep and difficult side of the mountain, which was, however, repaid by the acquisition of many beautiful plants. The handsomest *Tropœolum* (*T. speciosum*) which Peru or Chili produces spreads itself in abundance over the shady bushes, and delights the eye from a distance with its purple-red flowers. It was evening ere we reached the summit of the tolerably high ridge which shuts in the back-ground of the valley; and the sun went down as we reached the first *Araucarias*, whose dark crowns had for some time been distinctly visible, and inspired us with new strength, by showing us that we had nearly reached the goal of our expedition. We had, however, a little time left to look about us. On the rocky ground, nearly bare of soil, stretched, like gigantic serpents, roots from two to three feet in thickness, covered with bark like the columnar stems, which rose to the height of 50 to 100 feet. The crown, a broad, flattened cone, does not begin till the last quarter of the whole height. The lower branches, to the number of eight to twelve, stand in a circle round the trunk; the upper ones grow in fours and sixes, so that the form is perfectly regular. They all spread horizontally, the ends only being slightly turned upwards, and are covered through their whole length with scaly leaves, an inch in breadth, sharp at the point, and of so ligneous a texture that it requires a sharp cut

* The same remarkable change in the vegetation takes place in Brazil where the original forest is destroyed. It never reappears, but is succeeded by trees of lower growth and entirely different kinds. These secondary woods are known in the country by the name of *capoeiras*, as distinct from the primitive forests, *mato virgem*.

to sever them. The whole appearance of the tree is enchanting, though it bears a distant but unmistakable resemblance to our Firs. The fruit grows at the extremity of the branches, in a perfectly round ball the size of a man's head. It is formed of scales laid regularly one over the other, and covering the seeds which give its first and most peculiar importance to this, in itself, fine tree. The Araucaria is the Palm of the Indians who live in the neighbourhood of the Chilian Andes from the 37th to the 48th degree of S. lat. It yields to these nomade tribes a supply of vegetable food, which, to such of them as are far removed from all traffic with the whites, by which corn may be procured, forms almost exclusively the only diet of that kind which they possess. The vast extent of the *Pinares* or Araucaria forests, and the astonishing quantity of nutritive seeds which are produced by a single tree, might nearly secure the Indians from all danger of famine, if their mutual animosities did not prevent them from gathering them in peace. A single *cubeza* or fruit contains from two to three hundred kernels; and twenty or thirty of these fruits may often be counted on one tree. Now an Indian, if not altogether destitute of animal food, cannot, even if he has a stout appetite, eat more than two hundred of these kernels in a day; so that it follows, that eighteen trees at the most would be required to support him a whole year. The kernel is shaped like an almond, but is twice the size, and is covered with a leathery skin easily rubbed off. It is very agreeable to the taste, but not easy of digestion; and is apt to disorder the stomachs of persons unaccustomed to it, as it contains a great quantity of gum, with very little oleaginous matter, and becomes as hard as a stone in a very short time. A sweet exudation, which seems to have its source in the embryo, comes out of the seeds, if not over-ripe, when dried in the sun. The Indians eat them in all states, fresh, boiled, or roasted. In the last state they taste like the edible chestnut, except a certain bitter flavour. For winter use they are steeped in warm water, and then dried; and the women know how to make them into a kind of flour, and even pastry. The collecting of them would be a work of no small difficulty were it necessary to climb the trees for this purpose. But towards the end of March, when the fruits ripen, they fall of themselves, shedding their scales and contents on the ground, to be picked up without trouble by the small parrots and finches, who alone divide the spoil with the Indians.* They lie in such quantities in the forests of this tree which border the country of the Pehuenches and Huilliches, and which it requires a long day's journey to pass through, that only a very small part is made use of. In former times a large quantity was brought to the cities of Concepcion and Valdivia through the traffic with the Indians, and found

* The large triangular kernels sold in the shops as Brazil nuts are obtained in the same way. They are enclosed in a round ligneous capsule, larger and thicker than the cocoa-nut, without the covering in which that is enveloped. They fall when ripe from the lofty trees on which they grow, and split open; and the monkeys, squirrels, and other wild animals, regale themselves on their contents.

their way to Valparaiso and Lima; but they are now seldom to be met with in the districts on the coast, and when they are, have lost their flavour through age.

“The wood of the *Araucaria* turns red when acted upon by the heat of a forest conflagration; but is white in its natural state, with a deep yellow tinge at the centre. It yields to none in hardness and solidity; and might hereafter be found of much value, were not the places of its growth almost inaccessible. It is thought to be fit for ship-building, but is much too heavy for masts. If a branch be broken, or a scale of the unripe fruit pulled off, a thick milky sap comes out, which soon changes into a yellowish resin, of a pleasant smell, which is used medically by the Chilians for the cure of violent rheumatic pains in the head, by applying it externally to the part affected.

“The *Araucaria* forest of Antuco is the most northerly known in Chili; and it may be assumed that the 36th degree of S. lat. is the boundary in that direction, beyond which this prince of all extra-tropical American trees will not flourish. The southern limit to which these forests extend is not sufficiently known, though it probably does not exceed the 46th degree. The want of information on this point is scarcely to be wondered at, when so many more important matters relating to western Patagonia remain unknown. Between Antuco and Valdivia it grows only within the Andes; and, as the Indians report, only on their western sides, and never lower than 1500 to 2000 feet below the snow-line, to which it seems in many places to ascend. Farther south it descends lower, and is found on hills of no great elevation, not far from the sea, in the country of the Cuncos and in the vicinity of Osorno. The Corcobado, a mountain-range opposite the island of Chiloe, is said to be covered with groups of these fine trees from the snow to the very bottom.

“The *Araucaria* forests are nearly as bare of every thing else as our Fir woods, and afford little to gratify the botanist in smaller plants. Their usual localities are steep rocky ridges destitute of water. We were obliged to fetch ours from a considerable distance from the place of our bivouac, though our cookery required, indeed, no great quantity; and after a very frugal supper we stretched ourselves to sleep on the bare rock, lulled by the music of the nightly tempest, which played in various tones among the lofty summits; but which would not have much disturbed us, accustomed as we were to such lodgings, had not so thick a mist descended upon us about midnight as nearly to extinguish our fire. Matters became more serious when the storm of thunder and hail which followed seemed to remind us that even an *Araucaria* forest was no shelter from the wrath of the Cordillera.* It set us all shivering—my companions chiefly from

* The Indians believe that the Cordillera, or great chain of the Andes, is the abode of certain evil spirits, or gnomes, who watch over the treasures of gold and silver which it contains, and manifest their anger when mortals invade their secret recesses by the terrific storms which often arise there without any previous warning.

superstitious fear; though the temperature, which had fallen to 38°, was low enough of itself to make thinly-clad people's teeth chatter. The wished-for morning brought a clear sky, and the opportunity of lighting a good fire; and a young man who had joined us the day before, swinging his *lasso* over the lowest bough of one of the trees, got up into it, and several branches, with their colossal fruit, gathered that morning on the mountain of Quillay-Leuvu, have fortunately found their way to Germany."

The reader will bear in mind, that the date of this excursion of Dr. Poeppig's is 1828, at which time Chili was in a very unsettled state, and the southern province much annoyed by predatory incursions of the Indians. He was far from foreseeing the abundance in which the *Araucaria* would be propagated in England; but mentions, as the reason why the first seeds brought from Valparaiso did not grow, that they had been bought in the market, and had been *roasted*. The Doctor did not extend his journey farther southward, but visited Peru, and crossing the Andes, descended the rivers Huallaga and Marañon, and returned to Europe from Para.

MEDITERRANEUS.

In my communication respecting *Lapageria rosea*, "*ungenial*" is misprinted "*congenial*." May in Chili is the beginning of winter, answering to our November.

THE AUTOBIOGRAPHY OF A POT-ROSE.

CHAP. V. AND LAST.

I AM WASHED AND DRESSED FOR THE SHOW—JOURNEY TO CHISWICK—ARRIVAL AND INCIDENTS THEREON—RESULTS OF THE SHOW—COMPANY—MY RETURN—MORE COMPANY AT HOME—THE PHILOSOPHER—STUDY OF MANKIND, AND BUTTERFLIES—CONCLUSION.

EARLY on the morning preceding the show, John and Jacob came in and selected ten of us: I need hardly say that he chose such as were in fullest and finest bloom; and it was highly gratifying to me to find myself one of the first fixed upon. I was carried into the shed to be washed, dressed, and packed; my leaves were sponged, my shoots carefully tied up, and I was then packed in a covered van with my companions, who had been similarly treated, and delivered over to the charge of Jacob, who John told ten times over to let old Dobbin walk gently, that he might not shake us. Notwithstanding this precaution on the part of John, I found myself, as usual, none the better off for being transferred from his care; Jacob, though clever and attentive, was young, and so elated was he with this his first journey to Chiswick, and the auspicious circumstances attending it, that, unknown to John, he took his cornopæan with him; and

no sooner was he clear off than he began to play his favourite village airs. Old Dobbin, who had been a trooper in early life, was soon on his mettle, and *would* prance and caper, despite of Jacob's earnest efforts to restrain him. Fortunately the cessation of the war-notes and a little coaxing brought him to a stand; not, however, till my buds and blossoms had been shaken within a hair's-breadth of snapping. Jacob, pale with fright and hair on end, looked into the van, and pushed his horn under the sawdust in which we stood, apparently thankful that matters were no worse, and the rest of the journey was pursued in ease and safety. On reaching Chiswick, we were carried from the van to the tent on hand-barrows; but, alas! when we arrived there the tables were covered with plants, and we were set on the grass inside the tent. Here we remained about an hour, buffeted by every passer-by: first, a coat-tail swung round and knocked off one of my buds (Jacob remarking sorrowfully, that exhibitors in tail-coats should pull them off before walking among exhibition plants); then a leg brushed me, bruising both leaves and flowers, and I sustained more injury in that short period than during the whole journey from Cheerup to Chiswick. Indeed I never spent so unhappy an hour in my whole life; for, apart from the unpleasantness of my situation, I saw John's long-sustained labour ruthlessly wasted. It seemed there was a dispute about the benches. One of John's competitors had arrived at the show first; and finding John's roses finer than his own, had spread his over a larger surface than usual in order to squeeze John's tight into a corner. But Jacob was not to be out-manceuvred so: he argued, grew angry, and, less wily than his antagonist, visited him with the expressive but disrespectful and impolite term of 'dodger;' and was preparing to back his arguments by physical force when John opportunely arrived, and, as usual, brought peace and satisfaction in his train. On understanding the question, he appealed to the fairness of his competitor; but meeting with no response, he went direct to the authorities. The result was, John's argument was pronounced sound and fair, and each had allotted to him his rightful space. But the movement had been artfully contrived, for it left John but half an hour to prepare for the Judges; and had the plants been of nearly equal merit, the loss of time might have been fatal to him. As it was, John won the prize, and the disturber was seen no more that day. I could relate many wise and important things which the Judges said when settling the awards; but as they were said "under the rose," I forbear, sad as the loss may be to the floricultural community. The company in general admired us very much; and the Prince of gardeners said of me, that I was the finest specimen of a Pot-Rose that he had ever seen. I am again indebted to my friend the drawing-master (who seemed to take an increasing delight in me,) for the annexed portrait of me as I appeared at the great Chiswick show.

Yes, reader, this is as I stood in the presence of Royalty, which had quitted its gorgeous palaces and courtly throng to behold the forms and tints of nature's choicest flowers, at once pleasing the eye with their soft and brilliant hues, and delighting the senses with their

balmy perfumes. As the day advanced thousands of happy faces passed us by, their attention often diverted by the bands of music stationed in various parts of the garden. The day wore proudly on,



the sun was sinking in the horizon, the music ceased, the company retired, and we prepared to return to our own quiet home. This we reached in safety, though somewhat dusty, thirsty, and fatigued; and long shall we remember that eventful day. Although somewhat

bruised with the journey, more company than ever came to see us, as our fame had risen with our success. Among others, the young philosopher made his appearance. I thought he had grown much older within the last two years, and he seemed much humbler and more deferential than formerly. He conversed with my master about me with evident interest, and appeared to have gathered some knowledge of my habits and nature. I heard John say, after he had gone, that he had written a book on philosophy, which the world had laughed at; and he had therefore given up the "study of mankind," saying, "they could not understand him," and taken to the study of butterflies! John further remarked, that, judging by himself, he was incomprehensible to *man*, but he doubted whether *butterflies* would understand him better.

I might fill volumes were I to set down all who came to see me and all they said; but I fear that I have already told too long a tale, seeing that it is all about myself. Let me, in conclusion, say a word about my master. His garden was open to the humblest as well as the grandest; and I believe he found one of his chief sources of pleasure in the delight which he thus imparted to his fellow-men. Although the villagers thronged his walks at certain hours, no flower was plucked, no border trampled on, for reproof from all would quickly have visited him who should injure the property or do violence to the feelings of the good squire. His presence was always hailed with delight, whether in urging on the young to engage in rural and athletic sports, in encouraging the advanced to sustain the toils and difficulties of business, or in imparting aid and consolation where age and want had rendered such services necessary. Indeed his every act was prompted by benevolence and high-mindedness; and his influence was even more remarkable for its kind than for its extent.

John received the gold medal from the London Horticultural Society, and did not forget Jacob's efforts in the struggle; and preparations were made to maintain the position so sedulously acquired.

Reader, this has been a true autobiography, and not a mere creation of fancy; I still exist as an exhibition-rose, and should you wish to see me, you have only to look for me at Chiswick among the Pot-Roses at the May exhibition of the present year.

Nurseries, Cheshunt, Herts.

WILLIAM PAUL.

ON THE THEORY OF FLORICULTURE. No. I.

IN sitting down to prepare a few brief remarks upon the theory of floriculture, I beg, in the first place, to say distinctly that I make no pretensions of presenting any thing new; neither do I write for the class of readers to whom the subject is familiar as "household words;" but I write for that large and ever-increasing number who, with a sincere love of flowers and of their cultivation, are solely

guided by empiric rules, which, however sound and successful they may be, are neither half so valuable nor half so productive of pleasure, as when accompanied by such an insight into the principles of floral life, as shall furnish (in many, if not in all cases) "a reason why." My desire, then, is to direct the attention of amateurs to the principles of floriculture, by such a compendium as, whilst it may but lift a corner of the veil, may do so sufficiently to stimulate their inquiries in the same direction, a course which will most surely yield them increased success and pleasure. How often has the question, "Why do you do so?" been answered to the following effect: "Oh, they always do so at Mr. Toddlekins; and he gained the gold medal at the last horticultural show at Chiswick." But to proceed with our subject: As plants spring for the most part from seeds, the nature of seeds may properly engage our first attention. What, then, is a seed? A ripe seed is a body produced by and separated from its parent (a vegetable egg), endowed with a vital principle, and capable, under certain conditions, of growing into a plant of the same species as its parent, with such occasional peculiarities and varieties as Florists delight to see in their favourites. It is not common for seeds to reproduce the *peculiarities* of their parents, and their sports and variations are confined within narrow limits. It may be doubted whether any true mules have resulted from the many attempts that have been made to obtain them; but when plants have been under cultivation for a long time, and the varieties crossed with each other, their progeny is greatly more liable to sport and produce variations, either in foliage, habit, or growth, or size and colour of flowers, than such as have not been so crossed.

I am not aware that any very certain light has been thrown upon the subject of crossing flowers, the particular properties affected by the different parents. The deductions of some of the most talented experimentalists are at variance on this point; but I think it may be safely affirmed that well-bred and well-cultivated parents are most likely to produce good seed, and this in proportion as the parent-plants have been brought to a high or perfect state of cultivation, and the best flowers should afford the best seed. How have the improvements in Florists' flowers been effected exclusively? I think by long-continued cultivation and crossing.

A ripe seed is in that condition best suited to its preservation: all unnecessary moisture is withdrawn, and it waits in security those conditions which are needful to excite its vitality. The length of time that any seed will keep, that is, retain its power to grow, varies much in different sorts, and is no doubt modified by the conditions in which it may be placed; it is, however, sometimes possible, by careful management, to excite the languid powers of growth in old seeds, when, under the usually successful plan, every seed would perish; therefore valuable seeds should not be too hastily thrown away because they appear dead. The care required with old seed consists in supplying the needful degree of heat, and just such *small* and *gradual* supplies of moisture as its feeble vitality can decompose.

Seed placed under certain conditions grows: the embryo enlarges and bursts its covering, elevating one point into the air, and pushing the other, the root-point, into the earth: sufficient moisture, and heat, and air are needful to germination. The ripe seed is charged with carbon, which is essential to its preservation; but this is an obstacle to its growth, and is removed by union with the oxygen of the water, which the seed absorbs and decomposes, forming carbonic acid, the hydrogen, the other constituent of water, being fixed in the tissue; this chemical change is favoured by the seed being covered from the light. The moisture also softens and expands the parts of the seed, rendering the pabulous matters soluble and fit for the vital principle to assimilate; but moisture is not the only requisite: a certain amount of heat, according to the nature of each kind of seed, is also needful; and this, in connexion with the moisture, excites the vitality of the seed, and causes it to germinate, pushing its roots into the earth and raising its seed-leaves into the air, where the *light* enables them to perform the processes needful to the growth of the plant, in the formation of additional organs.

The sowing of seeds belongs to the *art* rather than to the theory of floriculture; but we may remark that the soil should be such as suits the growth of the particular plant, and if stiff, should be rendered lighter by the admixture of sand or vegetable mould, or both, to permit the seeds to break the ground more easily: it should not be very rich; and in case of sowing in pots, it is well to use a large quantity of drainage, so that the seed may be kept moist without danger of stagnant water. The depth at which seed should be sown varies greatly, some bearing a good thick covering, and others requiring to be scarcely covered at all. The manner of sowing seeds, that is the position they are laid in the earth, is in general unimportant; and it has been said by Dr. Lindley, in his *Theory of Horticulture* (a work to which I am greatly indebted, and of which I should be glad to see a new edition, with the needful emendations and additions, and especially with a comprehensive *table* and chapter on climate), "that no known power can prevent a seed thrusting its root into the ground, and elevating its leaves into the air;" and yet the seed of the *Pelargonium* appears to be provided in the spiral tail of its capsule, or husk, with an apparatus for the purpose of depositing it in the ground, with its point downwards; and I have often seen *Pelargonium*-seeds, when promiscuously sown, push the radicle, or root-point, upwards into the air; so that I conclude that this seed is in itself deficient in this power, and is dependent upon the form of its capsule for being properly deposited in the earth.

OMICRON.

DESCRIPTIVE LIST OF HARDY CONIFERS. No. II.

I. ABIES DOUGLASI—THE DOUGLAS FIR.

WE present our readers this month with an engraving, taken from a drawing recently made for the *Florist*, of the Douglas Fir in the Dropmore Pinetum, which, like the *Araucaria* figured last month, is supposed to be the finest specimen of the tree in the country.

The specific name "Douglasi" was accorded to this plant in compliment to Mr. D. Douglas, whose name will be for ever associated with coniferous plants, as the introducer of so many fine things from the North-west coast of America, where our present subject occupies immense tracts from 43° to 52° north latitude. *A. Douglasi* was first found by Mr. Menzies, in 1797, at Nootka Sound, and was subsequently seen by Mr. Lewis on the Columbia river; but the merit of introducing the plant to Britain belongs unquestionably to Douglas, seeds having been sent by him to the Horticultural Society in 1826, from which the present and other of the largest plants now in the country were raised; and no higher compliment could have been paid him than by connecting his name with this magnificent tree.

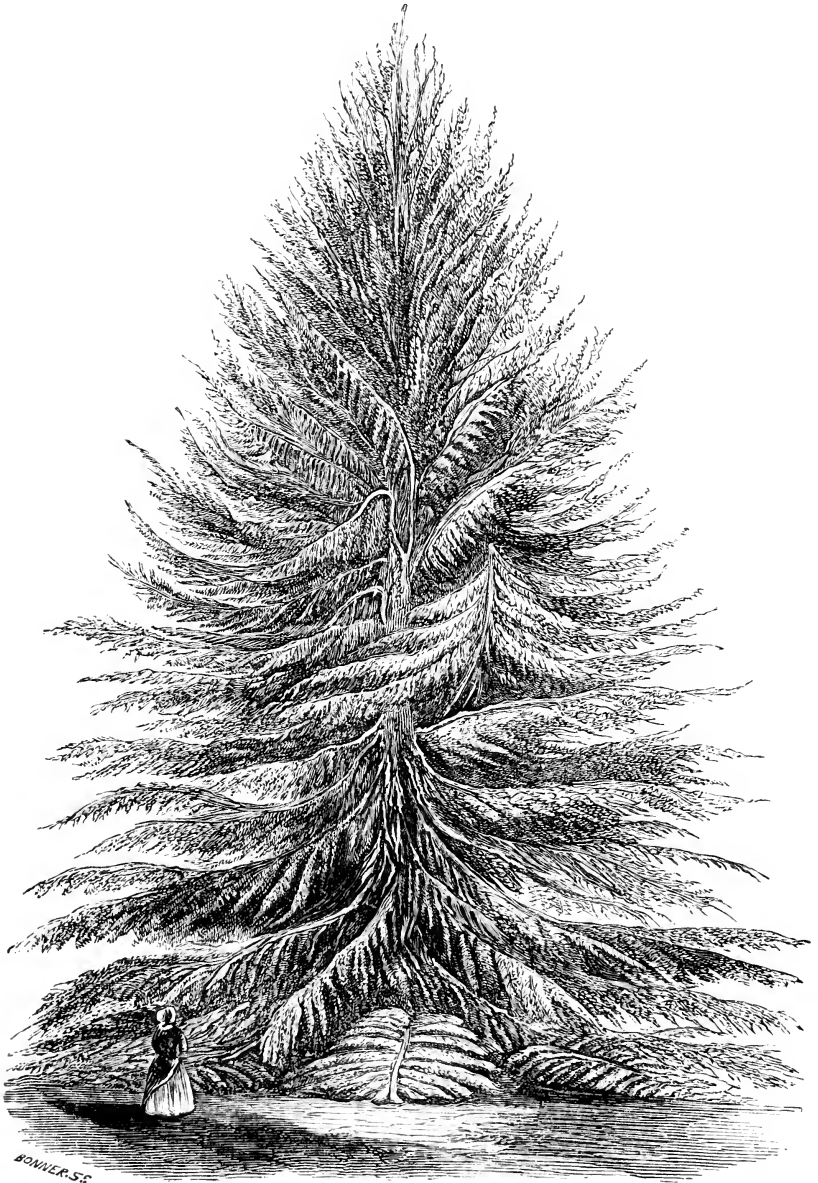
Abies Douglasi belongs to the Spruce Fir section of *Abietinea*, which, in some respects, it resembles; but is a much more graceful and ornamental tree, reaching to the height of 180 feet and upwards on its native soil, with a trunk, in some specimens, of from 12 to 15 feet in diameter.

The tree (see the engraving opposite) assumes an upright conical form, with numerous horizontal branches, from the ground upwards, thickly set with foliage; the leaves are of a pleasing green colour, and remain a long time on the branch, and thus form a dense mass of foliage, which adds much to its value as an ornamental tree; and when the young shoots (which at first are of a bright silvery green) protrude in the spring, the contrast between them and the older shoots from which they proceed forms a mass of light and shade at once beautiful and striking.

In its native habitats, the Douglas Fir produces a timber of a yellow colour, and is said to be firm and heavy, with the advantage of not being liable to warp. The bark of young trees abounds with a clear yellow resin. The above indicates that the timber is of considerable commercial value, combining, as it appears to do, so many valuable properties.

Of the tree now engraved, Mr. Frost informs us that it was raised from seed in the spring of 1828, and planted in the year following: a small hole only was prepared for it, and the tree consequently grows in the common soil of the place. Mr. Frost has, however, occasionally assisted it with top-dressings of decayed vegetable soil, towards the extremities of the roots. One point in managing the tree must be noticed, from the habit it has of forming two or more leaders, which check its upward progress; and as a mat-

ter of course the side-branches extend themselves, so as to destroy



Abies Douglasi (the Douglas Fir). 25 years planted. 70 feet high ; diameter of branches, 58 feet.

the balance and proportion of parts which good specimens possess. This was the case with the present tree; and had not Mr. Frost more than once attended to this, by removing the rival leader, the tree would have been forked from near the base; as it is, it presents a perfectly straight clean trunk 70 feet in height, with a circumference of trunk, at 3 feet from the ground, of 7 feet 2 inches, and 9 feet close to the ground, the diameter of the branches being 58 feet.

The above statistics inform us that the rate of growth must have been more than 2 feet 6 inches yearly; but this is considerably exceeded by other plants, which average 3 feet and upwards in more favoured localities, which we consider equal to the growth of the Spruce or Silver Fir, two of the fastest growing Conifers we have.

Now that the plant is comparatively plentiful, and its hardiness and ornamental character have become established, we have no hesitation in recommending its introduction to either garden, park, or forest scenery; for a tree presenting so many favourable points to the eye of the landscape gardener and planter should be planted on a large scale, especially as it is neither particular as to soil or situation, provided stagnant water be kept from its roots; and it appears to thrive as well in the north of Scotland as it does in the south of Ireland or England.

II. ABIES DOUGLASI, VAR. TAXIFOLIA—THE YEW-LEAVED DOUGLAS FIR.

This is a variety of *Abies Douglasi*, with longer leaves, of a deeper green colour. Loudon, on the authority of Mr. McNab, states the arrangements and growth of the branches in this variety to be more upright than the species: this we have not ourselves observed; and we consider the only difference to consist in the longer and darker coloured leaves of the variety as compared with the common Douglas Fir.

III. ABIES BRACTEATA—LONG-BRACTED SILVER FIR.

This fine tree has only been recently introduced by the Messrs. Veitch, whose collector, Mr. W. Lobb, found it in California. It had previously been discovered by Dr. Coulter and Douglas, neither of whom, nor Hartweg, succeeded in sending it to this country; and it remained to reward the perseverance of Mr. Lobb, who has had the honour of being the first to introduce this fine tree to British gardens, the Messrs. Veitch having recently advertised young plants for sale from seeds forwarded to them by Mr. Lobb from California.

This is described as a slender tree of great beauty, growing to the height of 120 feet; with a perfectly straight trunk, which, when the tree stands singly, is covered with numerous branches, the lower ones decumbent, and reaching the ground; while the upper ones are very numerous, short, and thickly set, forming a long tapered pyramid, or spire, giving the tree a peculiar appearance not seen in any other of the *Pinus* tribe. The above is extracted from Mr. Lobb's description of the tree, first published in the *Gardener's Chronicle*, who further adds: "The cones, too, are quite as singular as the

growth of the tree is beautiful: when fully developed, the scales, as well as the long leaf-like bracts, are covered with globules of thin transparent resin, presenting to the eye a curious and striking object." We may add, that from an examination of a specimen in Mr. Veitch's possession, the above description is certainly rather under than over-stated.

The tree grows in great abundance on the mountainous range of Santa Lucia and other parts of California, clothing the summits and central ridges of the elevated ranges on which it is found, and where no other Pine makes its appearance. This Pine-tree consequently will be quite hardy in the climate of Britain, and is a valuable acquisition to the admirers of Coniferæ.

Plants were advertised for sale by the Messrs. Veitch in the January Number of the *Florist*. S.

G O S S I P.

WE are pleased to see that the different horticultural societies are thus early in announcing their days of exhibition for 1854, as exhibitors cannot too early be made acquainted with what they have to do, and this can only be accomplished by an early issue of the schedule of prizes.

Our Cheltenham friends have taken another step in advance, our advertising pages having already announced that something out of the common way is to take place in June next. An elegant glass structure is in course of erection for the purposes of the "Cheltenham Great Exhibition of 1854, of Horticulture, the Arts and Sciences connected therewith, and designs taken therefrom." From the schedule just issued by the Committee we take the following extract:

"Of all sciences few are more useful and interesting than Horticulture, and of all arts, none more pleasing and beautiful than the *imitative*. How few articles are manufactured where it is not introduced with effect! And when we examine the beautiful representations that proceed from the pencil and the brush, the moulder and the carver, the engraver and the printer, the weaver and the embroiderer; or from the elegant works of drawing-room pastime, as wool and needlework, crochet and netting, &c. &c., and observe, on so turning them over, how many of the most attractive and beautiful are designed from the Vegetable World, and represent the chaste and pleasing productions of Horticulture, we cannot help coming to the conclusion that a collection 'of all such works of art, designed from such objects in nature,' must, in itself, form one of great attraction; and hence the origin and title of the proposed Exhibition. With this object, and that of collecting together specimens of the most improved apparatus, machines, appliances, garden-decorations, &c., the Exhibition will be divided into three sections:

"First section: All kinds of Horticultural Productions.

“Second section: The Arts and Sciences connected with Horticulture.

“Third section: Designs taken from Horticulture.”

Two days are fixed for the exhibition of plants, flowers, and fruits—June 20th and 21st. The prizes are liberal in most instances, although we object to some of their arrangements in this respect. However, we wish the undertaking every success, and intend being present to prepare a detailed report for a future Number.

Nothing can be more satisfactory than the last report of the Royal Oxfordshire Horticultural Society, which states: “The Committee have set apart the sum of 400*l.* as a reserved fund, with directions to invest the same in government securities for the benefit of the Society.”

We observe that 616*l.* was received for the sale of tickets alone in 1853.

CLEANLINESS IN GARDENING.

CLEANLINESS, the proverb tells us, is next to godliness, and one reason why it is placed so high as a moral duty is, because it is essential to health. And it is quite as essential to the health of plants as to that of animals. Passing through the houses of a friend some time since, who considers himself, and I suppose is considered by others, a good gardener, I was much struck to observe that the leaves of his hardwooded plants were entirely covered with the parasite denominated the *soot fungus*, which gives such an unsightly appearance to the Orange-trees in the winter, and which, together with the accumulation of dust and veritable soot from the heating apparatus had so metamorphosed them, that, instead of being green, they were black. And I suppose my readers have not unfrequently seen the same thing. Perhaps it is not too much to say, that it is just possible, if they look into their own frames and greenhouses, they may see it at this moment; for the dull and dark days of January are very likely to bring it about. Well, this arises from a want of cleanliness, and it is also certain that it is very injurious to plants; for the leaves are the lungs of the plants, and if you choke up these vital organs, the plant cannot breathe; and if it does not breathe it cannot live. Just as you cannot live yourself if your lungs are choked up with dust, as they would be if you were a mason, or a bricklayer, or a needle-maker, unless you made use of the remedy just now prescribed in a leading journal for such cases, and wore a moustache. The remedy for plants, to save them from going into consumption, is a free use of soap and water. There is plenty of time during the snow and rain of winter to get such work as this done; and really, if the plants are intended to be healthy, it must be done. When the men are frozen out or washed out, set them to work at cleaning the dirty leaves, only let them take care they are not bruised in the operation.

So much for *personal* cleanliness among plants. But we all know that this is a virtue not to be maintained without cleanliness in our dwellings also, and it is just the same with plants. Under the very best management leaves will become dirty in the winter; but a good deal may be done to prevent it, and here, as well as in other instances, prevention is better than cure. Just glance at the lights in the house in which you find the leaves all black and foul—not very transparent, are they? And here is one reason, no doubt, why the plants are in the state they are. The laps are all filled up with a gelatinous vegetable production, which is sure to make its appearance along with damp and dirt. And the outside surface of the glass is covered with all the various matters which, floating about in the atmosphere, are from time to time deposited upon it. And so light is shut out. Light is life; be that never forgotten. Every body believes it, and yet hardly any body acts upon his belief. The glass of the greenhouse is allowed to get dirty, and to continue dirty; and the plants being shut out from the vivifying and purifying influence of the light, become drooping and diseased. The remedy is at hand,—soap and water still, and not in homœopathic doses either. When the plants are housed in autumn, or before they are housed rather, let every bit of glass, whether in the roof or side-lights, and every inch of the building besides, have a thorough out-and-out cleansing; and if necessary, as it undoubtedly will be, clean the glass again during the winter. It is not the cold that we have to fear. That is easily kept out; and where one plant perishes from cold, a dozen perish from the damp and dirty and mouldy condition they get in through the want of light.

But we must come down a little, and look at the state of the surface-soil in the pots. Why, that is completely covered with a growth of *conferva*, and looks a good deal greener than the leaves; and I should be disposed to say, if a gardener thinks to grow plants this way, he must be *greener* than either. For how can you see whether a plant requires water or not? and of all the causes that render winter cultivation of plants a failure, none is more effective than negligent watering. And then how can the air penetrate to the roots? You have hermetically sealed the soil, and yet you expect the plant to grow. Get all this mass of green scraped off, and throw a little fresh soil on the top: that will be something like; and the improvement in appearance will be fully equalled by the improvement in reality.

In fine, it is impossible to say too much about cleanliness in every thing that relates to the management of plants. Without it, all effort and expense will be thrown away; with it, a great deal which is commonly deemed essential may be dispensed with.

F. W. JOYNES.

ORCHARD-HOUSES AND GLASS-CASES.

THAT our climate of late years has altered, in some respects, every one is aware: our summers have lately been deficient both in light and heat; our autumns, mild in the extreme (often wet as well); producing a climate in which half-hardy plants have kept flowering up to January, which has generally been many degrees warmer than the old standard for mid-winter. The real winter has thus been postponed, or driven forward as it were, and has visited us in March and April, sometimes in May; such seasons as the above, I need scarcely remind my readers, have compelled growers of hardy fruit to make use of various shifts, to compensate in some measure for this untoward state of things; for during late years, not only has a crop of wall-fruit been an uncertainty, but in numerous instances the trees themselves became attacked with gum, canker, or mildew; and have subsequently died through diseases originating from climatic influences.

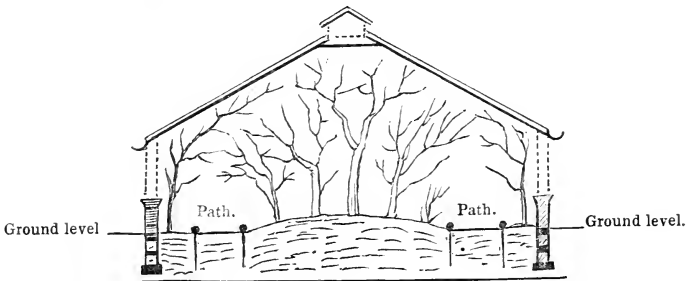
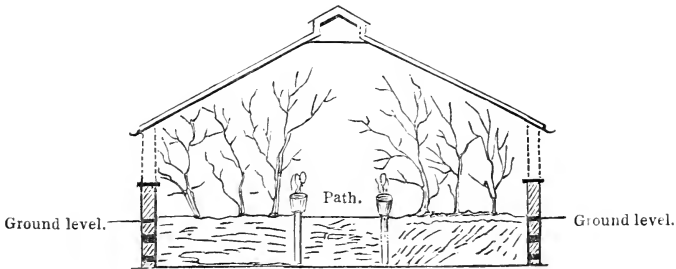
What the ensuing season may turn out cannot, of course, be predicted: there is an old saying, "that hard winters bring fertile and productive seasons;" if such be true, we shall this year be safe, for at the time I write there is frost and snow; we have winter in earnest, and sufficient, I should suppose, to satisfy the warmest admirers of the "good old times," when Christmas brought with it frost and snow, as surely as the dog-days do heat.

Be this as it may, it shall not prevent me from going back to my subject, for to be forewarned is to be forearmed; and now that *glass* is both cheap and plentiful, I cannot render those readers of the *Florist* who are interested in the question better service than by shortly noticing what has been done with our subject, by way of securing a crop of fruit. For such substitutes as canvas, netting, &c. will not stand a comparison with the more durable, and in every respect superior article, glass; the only safe auxiliary which can be made available to insure a crop of the finer kinds of wall-fruits in unfavourable seasons.

To effect this desirable result, various contrivances have, within these few years, been brought under the notice of the public in the shape of "cases, orchard-houses, glass walls," &c.; each of which has been recommended as valuable assistants in unfavourable seasons. It is these different structures I wish briefly to notice, by way of making them more generally known.

In the first place, Mr. Bellenden Kerr's idea of merely covering fruit-trees trained at a low angle by glass sashes, or frames, did not answer the purpose; there was nothing between the glass and the ground to break the current of air which passed uninterruptedly underneath, and produced an atmosphere much colder than the face of a south wall. On this, Mr. Rivers's orchard-houses are a great improvement, and may be described as a simple span-roofed house, from 12 to 16 feet wide, the roof-sashes resting on a plate running the length of the house, beneath which, and forming the sides, are

either upright sashes made to open for giving air, or *louvre* boarding arranged to answer the like purpose. The roof-sashes should be fixed; and to provide means for ventilating the top of the houses, must not meet at the upper part by a foot; above which a coping should be fixed at a sufficient distance above the lights (about 1 foot), the space being left open on each side to allow the admission of air, the regulation of which must be effected by slides made to open and



Different ways of planting orchard-houses. The dotted lines show the amount of ventilation, the roofs being fixed.

shut at pleasure. Mr. Rivers, I believe, places his roof on a Yew, or some other description of hedge, which affords a gradual admission of air without creating drafts; but a more secure and effectual plan is the above.

These houses are well adapted either for trained trees (in which case a trellis will be necessary), or for standard and dwarf bushes, which may either be planted out in a prepared border inside the house, or fruited in pots or tubs. Peaches, Nectarines, Apricots, Grapes, Figs, Plums, Cherries, and even the best kinds of Pears, may be successfully grown in "orchard-houses." The dry atmosphere, and freedom from sudden alternations of temperature, so fatal to fruit-trees blooming in the open air, under the vicissitudes of a British climate, are favourable conditions for obtaining a good *set*, while the increase of temperature produced by solar heat during summer and

autumn—its dryness (an essential point) being regulated at pleasure,—go to form a climate closely resembling that of Southern Europe, where most of the fruits we have enumerated attain their greatest perfection; and which they are found to equal, if not surpass, when grown under the conditions we have described.

[To be continued.]

J. SPENCER.

REVIEWS.

Supplement to the Rose-Garden. By William Paul. Piper, London.

THIS excellent addition to Mr. Paul's celebrated work quoted above, brings the history of the Rose, together with a descriptive list of all varieties that have appeared between the publication of the *Rose-Garden* and the present Supplement, up to the close of last year. Mr. Paul deservedly received much praise for the care which he had bestowed on the getting up of his *Rose-Garden*, and this Supplement is no less meritorious; we must also express our full satisfaction (and we are sure it will be shared by our readers, to whom we commend the work) at the admirable manner in which the artist has executed the four beautiful illustrations of new Roses contained in the present issue. These are:

Hybrid Perpetual General Castellane. Flowers brilliant crimson, large and full; form cupped; robust growth.

Bourbon Perpetual Louise Odier. Flowers bright rose, full; form cupped; moderate growth: a very pretty and distinct variety.

Moss: Princess Alice (Paul's). Flowers blush, pink centre, large and full; buds well mossed; compact form; very vigorous growth: one of the best, and very distinct.

Hybrid Climbing Rose Vivid (Paul's). Flowers vivid crimson, rich and velvety from the great body of colour they contain; an admirable pillar or climbing Rose, producing a most brilliant effect.

When we say that Mr. Andrews, who so admirably illustrates the *Florist*, is the artist employed by Mr. Paul to furnish these four representations, it will be a sufficient guarantee that they are marked with his usual care and fidelity.

As Mr. Paul is well known to be a successful cultivator of Pot-Roses, we give his words in the following extract: "At the time the *Rose-Garden* was published, the Manetti Rose was attracting attention as a stock. We had then but little experience with it; but in a controversy published shortly afterwards in the *Gardener's Chronicle*, we intimated our intention of putting it to a fair trial, and reporting the results. This has been done; and the theories there advanced are to us satisfactorily proved. Its nature is *too gross* for any but the free-growing kinds, and for them it possesses no advantage over the Dog Rose. Many kinds budded on it grow more rapidly the first year, but decline and die afterwards, owing, we believe, to an over-excited growth. Now, as then, for pot-culture, we are disposed to use it; because in this condition its exuberance

is somewhat checked, and Pot-Roses usually receive a closer watching for the destruction of wild shoots than such as are planted in the open ground.

“The freedom with which this stock throws up young shoots, which, if not closely watched, impoverish and destroy the budded variety, is a second great objection to its general use. While we record this as our opinion, there are some who still esteem it, and consequently a few of the leading kinds are budded on it, in order that purchasers may have a choice of stocks.”

Mr. Paul also makes some well-timed remarks on the questionable practice of sending out *so many* new varieties, for no other reason than that they are new, without paying sufficient regard to their being *distinct* from existing kinds, or an improvement on them; and states this practice to be peculiar to French nurserymen (there are times when we are inclined to believe the same practice is an Anglo-Saxon one in regard to other flowers), and we trust that his remarks may have the desired effect. We take another extract that not only applies to Roses, but to Dahlias, Hollyhocks, and every other description of Florists' flowers :

“We would also guard the unpractised against hasty decisions on new Roses. It is only by experience that we can fully appreciate the extent to which flowers are affected by peculiar seasons. One season suits one class of Roses, another season another class. For instance, last year the Rose Queen Victoria bloomed very indifferently, but this year it has proved itself the finest of light perpetual Roses; this year the well-known and first-rate Roses Baronne Hallez, Baronne Prevost, and Paul Perras, have been generally indifferent; while many varieties, both old and new, have surprised us with their strength and beauty.”

We observe that Mr. Paul objects to the practice of “dressing” flowers; but we must be permitted to say that he is not very distinct on the point. We cannot understand the difference between arranging the petals of a flower and the branches of a plant, or its blossoms, when tying, and putting them in order for exhibition; if one is “artificial,” the other must be so also. The Pot-Roses, as now exhibited, are the glory and pride of our great exhibitions. Their beauty is beyond the power of description; but from the time they are started into growth until we see them staged at Chiswick or the Park, how much is there not “artificial” in their production? It is all art, and most creditable to those who practise it with so much success. We heartily commend the *Rose-Garden and its Supplement* to every person who has a garden with a Rose in it, and who has not?

Rendle's Price Current, or Garden Directory for 1854, contains elaborate descriptive lists of vegetables and flower-seeds, in addition to other much useful matter, not the least of which is a calendar of operations by Mr. Errington. We can only hope the information Mr. Rendle puts before his customers may meet with a hearty response. One thing we suggest would make it more satisfactory to customers, if Mr. Rendle would state the number of perches or acres

he can supply seeds for at the sums named; at present, the term "small or large" garden is indefinite. In looking over the sorts and quantities named in each collection, it appears to us that the selections are not so judiciously made as purchasers may, in most instances, wish. For example, in collection No. I., twenty-one quarts of Peas appear, with but one pint of French Beans, and one pint of Scarlet Runners. Mustard and Cress is scarcely in sufficient proportion; and then, again, two ounces of Lettuces is not sufficient for a large collection, when so many sowings have to be made and so much vermin to encounter; whilst, as a set-off, five ounces of Parsley is given, much more than is needed in any garden, if sown judiciously. We merely raise an objection to the manner in which the selections are made, not to the catalogue itself, which is well got up, and contains much valuable information.

DESCRIPTIVE LIST OF FRUITS.

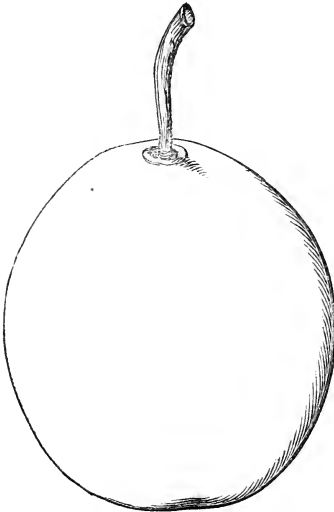
PLUMS.

(Continued from page 28.)

18. *Jefferson.*

This exquisite new American Plum, which came into notice a short time ago, proves to be a great acquisition; it is decidedly the best of its class, and fully merits the high character which accompanied its introduction. It has the advantage of large size with beauty and excellence combined, together with a fruitful habit and all the hardiness of our common kinds. Ere long it will doubtless make a very popular variety. The fruit is of the first size, oval, narrowing slightly near the stalk, and having the suture faintly marked. Skin deep golden yellow, spread with a few darker spots; and when fully exposed to the sun, has a purplish red tinge on one side, and covered with a thin pale bloom. Stalk moderately stout, and inserted without much depression. Flesh orange, juicy, rich and luscious, resembling a well-ripened Golden Drop in flavour; but even more saccharine, and separates clean from the stone,

which is flat, and acute at one end. The trees are vigorous and fruitful, and bear well in a young state; shoots slightly downy, and



have large, flat, glossy foliage. A suitable kind for open standards, and well adapted for an east wall, and for cultivation under glass.

19. *Ickworth Imperatrice.*

Synonym: Knight's No. 6.

This variety of Imperatrice is perhaps the best of its class, and is a very desirable late dessert Plum, ripening late in autumn; and it will hang on the tree firm and sound till the end of November, and does not shrivel to any great extent.

Fruit about the middle size, of regular shape, and the suture indistinct. Skin dark purple, spread with a few small brown specks, and tracings of fawn colour at the ends, the whole covered with a thick bloom. Stalk an inch long, moderately stout, and inserted without a cavity. Flesh yellowish green, sweet, juicy, and rich; adheres considerably to the stone, which is long and much pointed at one end, and larger in proportion to the size of the fruit.

The trees are stronger in habit than other Imperatrice Plums, with larger leaves of a darker green, and very glossy; they will produce good crops, if the hints given for the cultivation of these Plums are adopted.

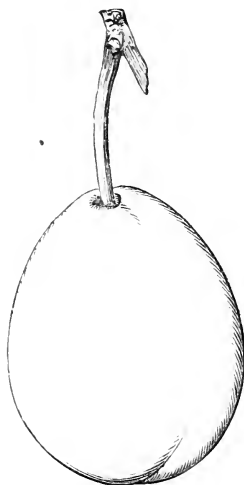
It may not be generally known that this fruit can be kept for a long time, if carefully gathered, wrapt in a soft paper, and laid in a dry place. I have a fruit by me (January 10) that was gathered on the 1st of last December.

20. *Blue Imperatrice.*

Synonyms: Imperatrice Violette, Imperatrice, Véritable Imperatrice, Violette.

The fruit of this sort is below the middle size, obovate in form, tapering slightly near the stalk, and has a shallow suture extending to the apex. Skin purplish red, and spread with a thin bloom. Stalk an inch long, slender, and set without depression. Flesh yellowish, firm, juicy, rich, and sweet, with a vinous flavour; adheres considerably to the stone, which is small and pointed. The fruit ripens in October, and will hang a long time on the tree and become shrivelled; indeed it is not in perfection till it arrives at that stage of maturity. This sort should occupy a place on a north or north-east wall, and the trees should be allowed to form natural spurs. The Imperatrice Plums are all of peculiar habit, and will not endure close, exact pruning, therefore all small short fruitful shoots should be retained without shortening, and the strong shoots removed during their summer growth: trees thus treated produce good crops.

With this article my list of Plums closes for the present. Some



new varieties, both of French and American origin, are now in the trade; but as yet I have not had an opportunity of testing their merits, and therefore I cannot give any opinion of them. Those already described comprise most of the sorts worthy of cultivation; and by including the Black and Shropshire Damsous, and Quetsche or German Prune, will form a good collection.

Frogmore.

J. POWELL.

CALENDAR FOR THE MONTH.

Auriculas. Top dress without delay with rich soil, and water more freely if the weather continues mild. The boxes should now face south, and as the plants make growth, increased care and watchfulness will be necessary to protect them by covering during frosty nights; on all other occasions give them plenty of air, also light by cleaning the glass, which will be found necessary after so much covering during the late severe weather. Young plants, wintered in small pots should be repotted, to encourage a vigorous growth.

Azaleas. Plants required for early bloom may be removed to the Peach-houses and early vinerias; continue to fumigate those plants which are infested with thrips, so as to eradicate the pest before young shoots are formed. Keep those remaining in pits or houses free from damp; admit air freely in favourable weather; the judicious application of liquid manure will be beneficial to such as are confined for pot-room, or are swelling their buds; those which have bloomed may be removed to a close pit; be careful not to excite them too much, or they will not form flower-buds for next season.

Bedding-Plants. Look over the stock, removing those varieties of which a further supply will be required to a warmer temperature, where they will soon push young shoots, which will strike freely.

Carnations and Picotees. These will require a general cleaning, trimming off all dead foliage. If mild, water those that are starting into growth, if at all dry. Should the majority be tolerably dry at one time, a gentle shower on a mild day towards the end of the month will greatly assist the plants; keep them open as much as possible. Soil for blooming them in should be well and often turned, keeping it dry for use.

Cinerarias. This lively spring-flower is already repaying us for our care and trouble, and a dozen kinds are helping us considerably in making the house gay at this dull time. Plants for late flowering should now have their final repotting; also plants for exhibition. These latter are grown in 8-inch pots; therefore, to comply with the regulations, this must be attended to; there is no gain, however, by using so large a pot, 6-inch being quite sufficient, in which the plants look neater and have a better effect. Look well to green-fly, and clear the plants of dead foliage. "Tie out" the blooming shoots, if large dwarf plants are desired, and keep them near the glass.

Cold Frames. Calceolarias, Petunias, Verbenas, &c. wintered in

cold pits require to be kept dry and clean; remove all dead leaves; give them all the air possible in dry weather; water in the morning, and close early after watering; fumigate continually. In severe weather, should the frost penetrate the covering, let them remain covered until the plants are thawed.

Conservatory and Show-house. In arranging plants, aim at effect as seen from the principal entrance. In grouping, be careful to preserve perfect harmony of colour, selecting the most showy plants in conspicuous places, which may be set off by contrasting showy plants with dwarf Palms, Ferns or Lycopods, Camellias, forced Chinese and hardy Azaleas and Rhododendrons, Roses, Honeysuckles, Deutzias, and numerous other plants, including bulbs, Neapolitan and tree Violet, Mignonette. Make it a rule to have always the latter three in bloom, to mix with other plants for their fragrance; as well as *Daphne indica* and *rubra*, forced Orange-trees, Musk-plants, &c. *Calla aethiopica* is a nice plant at this season, if well managed; as are the perpetual or tree Carnation, being as useful for cut flowers as for their scent. Let such plants as go out of bloom have attention, if wanted for forcing another season.

Dahlias. The general stock should now be started in gentle heat. Tan or dung beds answer equally well for breaking them, or placed near a pipe in the vinery. If the roots are doing well, and likely to produce more than is required, destroy the cuttings for a time, as there is some trouble in preventing early-struck plants from becoming stunted.

Ericas. The soft-wooded kinds will soon commence growth, and will therefore require an increased supply of water. Admit air freely on every favourable occasion, still adopting the plan of closing early; without the weather should prove very severe, abstain from making fires. Many beautiful varieties will shortly be in bloom, and from this time we may calculate on a continuance for many months. Look to mildew on the free-growing sorts; apply sulphur immediately it makes its appearance.

Flower-Garden. Wherever the soil has been displaced about the roots of alpine and rock plants, add fresh soil, or replant them. Anemones and Ranunculuses may be planted, the former for a late bloom. Loamy soil, well enriched with rotten cow-manure, is the most suitable for them, and a situation shaded from the mid-day sun. Protect beds of Russian and Tree Violets from severe frost by sticking a few evergreen branches among them. Deciduous trees and shrubs may be planted in open weather. Evergreens had better be deferred till towards the end of the month or March. Turn over and prepare compost for flower-beds, &c.

Forcing. Those Vines that are broken so much as to give indications of what the crop promises to be, should now be disbudded; and as the shoots lengthen, they should be gradually tied to their places. Maintain a steady temperature, not exceeding 65° by day, taking advantage of fine weather to allow a rise of 10° or 12°; frequently sprinkle the pipes and paths of the house, but withhold the syringe from the foliage; admit air gradually and with much caution.

Allow Peaches to advance very slowly, especially in dull weather; aim at having a free admittance of air at all favourable occasions; and when the blossom is expanded, partially thin them. Keep up a succession of Strawberries by placing another lot in the pit, or elsewhere, under cover; water those cautiously that may have shown flower, and by no means allow the water to remain in the bottom-pans, if they are so situated. Prepare beds for Cucumbers and Melons, if wanted early; and make successional sowing of French Beans. Look to the bottom-heat of Pines; those likely to show soon should have every advantage of light, with an increase of temperature, which, to ensure fine fruit, must be kept steady. Apply fresh fermenting material to successional plants; and have soil and pots in readiness to repot them towards the end of the month.

Fuchsias. Plants intended for specimens for exhibition should now be pushed along in gentle heat; if moist, so much the better, drawing the syringe over them during the afternoon. Young stock should be grown in heat, giving them sufficient room not to draw each other up weakly. Continue to put in cuttings.

Hardy Fruits. Proceed with pruning wall-trees, as well as trees in the open quarters. Apricots, Peaches, and Nectarines may be pruned and nailed in towards the end of the month. See that matting, canvas, or other protective material is in order by the end of the month. They should then be placed before the above to retard the opening of their blooms, for by keeping them from opening till as late a period as possible, the chances of their setting is increased. Fruit trees of all kinds may yet be planted, observing to do this only when the soil is dry, or nearly so. Spread out the roots regularly, and mulch the surface after planting. Give a surface-dressing of rich manure to Strawberry-beds; do not dig this in, but allow it to remain on the surface: digging only destroys the surface-roots. Prune Gooseberry and Currant bushes; it is a useful plan to plant these in lines five or six feet apart, and train them to sticks espalier fashion. Clean up the prunings, and burn, or rather char them for top-dressings, and fork over the ground underneath the trees, adding dung or fresh soil when the land is poor or the trees are exhausted.

Hollyhocks. Repot autumn-struck plants, using good rich soil to induce them to make stout, stocky plants, instead of starting prematurely to bloom. It is but of little consequence the plants being small, so that they are not "leggy." Good cuttings, struck this month, if properly encouraged, make excellent plants, and flower in good time; therefore continue to take them from the old stools, and strike them in moist bottom-heat. Seed should now be sown.

Kitchen Garden. When the land becomes somewhat dry, and the weather is open, preparations must be made for the land to receive the spring and summer crops: ground still undug should be immediately turned over; and such pieces as have been dug up rough some time, should be turned back with the five-grained fork—a better implement than the spade for thoroughly mixing the soil. Land intended for the reception of top-rooted plants—as Carrots, &c.—should be well-worked to a good depth, that the roots may grow straight and

clean. Look over early-planted Cabbages, Lettuces, Cauliflowers, and supply defects; those of the latter in frames should be fresh surfaced; pick off decayed leaves, and give air at all times; towards the end of the month get them hardened off for transplanting to warm, sheltered ground when the weather permits. Sow on a slight bottom-heat, for future transplanting, Cauliflower, Walcheren Broccoli, and Lettuce, as well as Celery for early use. If any spare frames are at hand, fill them with some fermenting material, and plant a crop of early Potatoes, and a few true short-horn Carrots and early Radishes; these latter should be got in the open ground the first favourable opportunity, selecting the driest and warmest spots for them; cover the ground afterwards with dry litter till the plants are up. Ground should be prepared for Onions and Parsnips towards the end; the time for sowing will much depend on the weather. Onions prefer deep well-enriched soils, and Parsnips loamy deep ones; do not be afraid of digging land too deep, provided the subsoil is tolerable. Peas and Beans must be sown for successional supply. Look over the root stores, and see that seed Potatoes are prevented from growing out, by keeping them thin in a cool temperature. Dress with soot or guano winter Spinach, Parsley, and early Cabbage; and sow a little of each towards the end of the month in a warm place.

Mixed Greenhouse. Admit air every mild day. Be cautious in applying artificial heat. Close early, with a little sun-heat when you have the chance, to preserve a warm atmosphere. Look over each day for water; as the sap begins to move, more will be requisite: let it be a degree or two warmer than the house. Give weak manure-water freely now to Camellias and Azaleas, to enable them to bring out their flowers fine. Leschenaultias, Crowea Saligna, and Boronias should have the warmest end of the house, away from draughts; light, however, is necessary. Kalosanthes and other succulent plants should occupy the driest part of the house: water only when dry. Train Tropæolums as the shoots advance. Kennedyas, Hoveas, Pimeleas, Boronias, Acacias, if wanted to bloom early, encourage by keeping them at the warm end of the house. Keep down insects by fumigating and soap and water, and read over the paper on cleanliness in another part of the *Florist*.

Orchids. 60° will still be the night temperature. There will, however, be no harm in allowing the thermometer to run up to 80° by day in bright sunshine, damping the house well at the same time. Continue to pot or re-dress all that show indications of moving before the growth has gone far, or the delicate young roots may get injured. Well soak plants on blocks or in baskets, as the general stock should, during this and the next month, be got into growth. Dry turfy peat, sphagnum, crocks, charcoal, and the rotten part off soft-wooded trees, should always be in condition for using, as potting should take place not all at once, but as the plants' growth demand it. Zygopetalums Lælias, Blitiers, and other plants, as they get into bloom, should be placed at the cool end of the house, and their flowers preserved from damp.

Pansies. Lose no time in repotting those intended for blooming

in pots, the soil having been kept dry, as recommended in previous Numbers. Let the plants remain a week at least before watering them after they have been shifted. Give them plenty of air, and keep the lights off as much as possible. Plant out the general stock towards the end of the month, choosing a dry time. Plant out seedlings that have been wintered in pans.

Pelargoniums. Repot July plants into blooming pots, now that they have sufficiently broken after being stopped. May plants must be pushed along; a little fire occasionally will be found necessary, with air: by no means keep the house close. If water is required, see that enough is given at a time to penetrate the ball. A "little" water will ruin them, by only wetting the surface, instead of penetrating to the points of the roots. Young stock should also receive a shift. Fumigate the houses occasionally. Tie out the shoots of all plants that are becoming crowded, and give them all the room that can be afforded.

Pinks. Stir the surface of the beds as soon as they are sufficiently dry, and fill any vacancies occasioned by winter from those in pots. After the severe frost we have experienced, the plants should be firmly pressed into the ground. Pinks recover in a remarkable manner with a little fine weather, therefore should not be destroyed hastily.

Roses may be planted this month with success. On the first appearance of green-fly on the potted plants, fumigate with tobacco forthwith. The necessary temperature for forcing hatches the eggs of the Rose-maggot, than which a more destructive enemy to early bloom does not exist; the first intimation of their existence is the snuff-like powder (alluded to in a former Calendar) on the points of the pushing shoots; there three or four may be "unkennelled" from amongst the embryo leaves, and they must be closely hunted for, or they will escape detection; and it should not be forgotten, that one maggot will, before it is full grown, destroy many blossoms in their early stages.

Stove. Be still; keep only a moderate temperature, increasing it slowly as the days lengthen and light increases; if it reaches 60° by the end of the month, enough will be done. Preparations for spring potting should commence by gradually giving more water to plants which have been rested; when the plants show when they will break, prune them in according to their habit; they should be left to grow for a short time before disrooting or potting; after which stimulate the roots by bottom heat and a moist heat. Gloxinias, Gesnerias, Achimenes, and similar plants of herbaceous habits may now be started.

Tulips. A few only have made their appearance above ground: protect the bed from heavy rains or snow. Frost during February will do them but little harm, unless the bed is in a wet state, and not properly drained.



PHILESIA BUXIFOLIA,—BOX-LEAVED PHILESIA.

[Plate 85.]

WE are indebted to Messrs. Veitch and Son, of Exeter and the Exotic Nursery, Chelsea, for our representation of this interesting and valuable plant, it having been received some three or four years ago from their collector, Mr. William Lobb, who discovered it in the island of Chiloe.

It is a compact-growing dwarf shrub, of the natural order Smilacæ. It succeeds best in well-drained fibrous peat, with the temperature of a cool greenhouse, and blooms freely in May and June. Small plants not more than four inches in height produce flowers; and in every respect it promises to be a most valuable introduction. In habit it is close and erect, somewhat resembling the hardy *Andromeda polifolia*, and it has delicate waxy rose-coloured flowers. Notwithstanding its treatment as a greenhouse plant, we are informed by Mr. James Veitch that it has lived in the open borders at Exeter without protection for three winters; there is therefore every probability of its proving a hardy plant. It is nearly allied to *Lapageria rosea*.

It was exhibited at Chiswick at the June Show last year, when it was awarded the highest prize for new plants; and it was also exhibited at the National Floricultural Society, where it was greatly admired.

THE CARNATION AND PICOTEE, AND THEIR PERIOD OF FLOWERING.

EXPERIENCED cultivators of these flowers are well aware that any attempt largely to anticipate or retard their period of flowering, by subjecting them to a course of stove or greenhouse culture, is certain to result in failure, and generally in the destruction of both flowers and plants. But whilst the indubitable fact exists, that these plants are most impatient of any interference with their natural habits, it is equally a fact that a great modification may be effected in the period of bloom, without the slightest evil, provided the process adopted does no violence to the rules on which their successful culture depends.

As an illustration of this, I need do no more than remind any interested reader, that the period of flowering has varied very considerably between his own collection and those of other cultivators in his neighbourhood, precisely as the situation in which the plants have been placed, after potting for bloom, has been warm or cold, sheltered or exposed, or as the plants may have been vigorous or weakly, when put out. Such a fact, I doubt not, has been noticed by every observer; and as a further illustration of this power of modification, and of what may be done in the limits of a small garden, I may mention, that the whole of the flowers taken by myself to the National, at York, last year, were cut from plants which, from the time they were planted out, were placed under the protection of the garden-frames, and which, from that cause alone, were quite six days in advance of the general bloom. Nor is this a solitary case, similar modifications have invariably occurred.

I have been led into making these remarks, from the fact, that during an extended canvass, on behalf of the National Society, and its meeting for the present season, I have met repeatedly with an expression of regret that the differing periods of bloom would prevent the possibility of a competition, which otherwise would be heartily entered into. And as I think this objection is not wholly substantial, I venture to controvert it, so far as the facts I have adduced may serve to do so. In attempting such a modification, however, it must be borne in mind, that whatever may be the course pursued, whether to retard or hasten the bloom, the process, in all cases should be *very gradual*, and exactly adapted to the state of the plant. To render my meaning more apparent, it will be remembered, the first movement of the plant, after its winter rest, is comparatively slow, and is gradually hastened, until it culminates in the intense excitement of the bloom, and any assistance rendered for the purpose of hastening the development of the flower, should have a precise relation to the movement of the plant. Thus, whilst at the *opening of the flower*, it may, without harm, be subjected to forty-eight or seventy-two hours of a close stove temperature, such a course to *start with* would be positive death. And the same holds good in any attempt to retard the bloom. To submit the plant to the unrestricted influence of the early spring and summer's sun, and then, in the excitement belonging to it at midsummer, suddenly to subject it to the comparative gloom and coldness of a northern aspect, would produce an inevitably fatal check. But if commenced at the proper period—the first movement of the sap—the desired end may be attained without injury. The *modus operandi* is exceedingly simple. To hasten the period of flowering, effective shelter, implying increased warmth and vigorous plants, is needed; to retard, a northern aspect (sheltered, however, from violent storms and cutting winds), and the intense sunlight gently broken by a hedge, or shrubs, or a fine light net, as may be convenient. The former of these conditions may be obtained by the use of the garden-frames, selecting the warmest and driest part of the garden, or by placing the plants at the foot of a south wall, or in the shelter of a hedge, or by the

use of flake hurdles, hoops and mats, or in many other ways which the fertile imagination of a good Florist will readily suggest. In all cases, it would be an advantage to plunge the pots in slightly-moistened sawdust, turner's shavings, or other *very slowly* decomposing material. As the means of retarding are available almost everywhere, nothing more need be said on that point.

I therefore trust many, who may have thought themselves out of the pale of competition for the present season, will give my suggestions a fair trial, as I feel assured cultivators in the most backward districts may produce flowers in fine condition, by such means, by August 3d, and the same may be done from the later varieties, in the extreme south. And does not a "national" demonstration *deserve* this effort? Does it not *require* it? Of all agencies within the command of Florists, is there one capable of such results as a national gathering? As a source of delight, as a school for information, as an illustration of the Florist's art and its truth, and as a means of obtaining for him his proper place in the estimation of the public, how may it be excelled? Already, as its first, and I had almost said, fairest fruit, ignorant dissension has fallen before it; and thus stripped for the race, (and of such a cumbrous, monstrous load!) shall we stand listless, or shall we, by a unity of effort, show what is due to the long-considered insignificant Florist? Properly managed, these exhibitions may conduct us to a place co-equal with that of the sculptor and painter, and nothing less should content us.

And is not the *flower* worthy of some effort? Rejoicing in excellences surpassed by none, once described, and by the master-mind of all men, as "the fairest o' the season," of almost infinite variety, and capable of the most wonderful modification, shall we permit it to occupy a second place? Can we uncaringly pass by its appeal for regard? Can we cast off the direct hold it has upon our sensibilities in the fact that it *needs* our devotion? For, wanting in the facility of increase, the element of profit to the commercial propagator, it can hope for nothing but a bare toleration at *his* hands. But to the Florist, whose heart is instinct with the love of beauty, in whom chivalrous feeling springs spontaneously, this very weakness is a delight, because it gives a right to his devotion. In days gone by, our old knights loved nothing so well as succouring the weak, and battling for the helpless, even to their lives' cost. Living now in days of superior enlightenment, are we to degenerate? Shall we permit merit of the highest, beauty of the rarest, to sink into neglect, because the commercial element is wanting? Florists of England! Carnation growers of the whole world! help me with overpowering might to say No!

A few words in conclusion may be interesting, and prevent misapprehension. Earnestly as I desire my appeal may move all, especially those not otherwise addressed, it is not made in the fear of a paucity of support, but that not one may be absent who should be present. The support already promised has exceeded the most sanguine expectations of the committee, and enabled us to offer an amount in prizes without any parallel in the history of

the Carnation, the total exceeding by seventy per cent the very liberal sum given at York. As a matter of comparison, I may perhaps say, I believe the largest exhibition of these flowers ever known was the "grand trial exhibition," held here in 1850. On that occasion prizes were offered for twenty collections of *six* blooms in four classes (so that five exhibitors might have divided the honours amongst them), and forty-eight for single blooms, the total money value being twenty-four pounds. Thirteen competitors disputed the possession of these honours. For the coming meeting, the prize-list embraces a total of seventy guineas, in twenty-two collections of *twelve* blooms, sixteen of six blooms, and eighty single specimens. Yet, notwithstanding this great increase, I believe the competition will considerably exceed in its severity the ratio of the former. Thus far the committee have the promise of great success; it remains for the cultivators of these flowers to make it a reality.

Derby, February 1854.

E. S. DODWELL.

FROGMORE.

As some account of the Royal Gardens here is necessarily interesting at all times, but more especially so at the present season, when the different kinds of fruits and vegetables required to supply the Royal Table in the early part of the season are in various stages of forwardness, as well as the numerous kinds of plants required to be in bloom at this season for decorative purposes, we feel assured that the following memoranda of what came under our notice during a recent visit, will be acceptable to our readers.

In the forcing department, we were much struck with what must be considered the most successful exhibition of Grapes in pots we ever remember seeing. The plants are now in full rearing, and about twelve months old, and do not exceed two feet in height. Each of them was carrying from four to six bunches, and they were clothed with magnificent foliage. These vines were in low houses behind the principal range; the bunches were in different stages of forwardness, some having been partly thinned, and others partly swelled; and in many cases they were much above the ordinary size, giving promise of a crop of very superior fruit. The plants were in bottomless pots, about ten inches wide, and were placed on shelves, on which a couple of inches of turfy loam had been put before the pots were set there. The roots of the vines soon enter, and spread through this material, by which the plants are greatly increased in vigour. In the house devoted to early Grapes, the crops looked very promising. We noticed one house in which the berries were more than half swelled, and we saw in the late vinery a portion of the crop of "St. Peter's" still hanging, fresh and plump; so that no great distance of time, if any, will intervene between the retarded and early supplies of this kind of fruit.

Pines, as a matter of course, are grown here in large quantities. In most cases they are merely planted out in loam, over a substantial bed of warm leaves which occupy the interior of the pit, the atmospheric heat being supplied by hot-water pipes, the upper one taking the form of a shallow trough, to afford the requisite humidity. We need scarcely inform our readers, that by this plan, without much additional after-trouble, the finest of Pines are produced. As an instance, we may mention that some fruit of the smooth Cayenne now ripening, could not be much less than seven pounds, or upwards, in weight, and perfect in every respect. In the larger range, Pines are grown without pots, in the open soil, which is heated by hot-water pipes.

Peaches, under glass, were showing well for a crop; in one or two of the houses the fruit was fully set. The trees, having now been in bearing for some years, appear to have attained that medium state of growth so favourable for producing a certain crop, of the finest size and quality.

Plums were coming into bloom. The "Victoria" appears a favourite with Mr. Ingram, who considers it one of the finest-looking, and, when properly ripened, one of the best early Plums for forcing. The "Jefferson," and other favourite kinds, are also largely grown under glass. In one of the forcing houses was a tree of the Stanwick Nectarine, about which so much has been written. Mr. Ingram informed us that the fruit is very late; and that owing to its not ripening regularly besides, he considered it not to be so valuable as it was at first supposed to be.

Strawberries we found in different stages. Mr. Ingram's seedling, the "Prince of Wales," is the kind principally relied on for the main crop, assisted by the British Queen, later in the season. The Prince of Wales is certainly the most valuable kind we have for forcing, appearing to set a full crop under circumstances which would render the older kinds liable to failure. It has, besides, the merit of being a fine-looking fruit of good quality, and as an instance of its productiveness, we saw a number of plants in one house which had been forced the preceding season, and which were now showing blooms in the same pots as strongly as the best young plants.

French Beans are forced extensively. The seeds are inserted in a piece of turf, and laid on a part of the vinery-floor, warmed by the hot-water pipes passing underneath. As they vegetate, the inside border of each vinery, as it is brought into working order, is slightly broken up, and the Beans planted in rows. They grow so as to bloom before the vines are in leaf sufficient to shade them; after which, the shade does not appear injurious to them; but as they grow in the open soil of the borders, they continue to produce abundant crops for a considerable time. By these means, every foot of space is taken advantage of with the best results, and with the least amount of expense. The kind of Bean used for forcing is that known in the trade as "Wilmot's forcing Bean."

Cucumbers appear in succession, from crops in a bearing state to

others just starting into growth. They are grown in shallow borders of loam, heated by hot-water pipes.

Forcing Asparagus here is worthy of especial notice. The plants are grown in beds of richly prepared soil, having a space between them, covered over with boards. In these spaces is a series of hot-water pipes, which supply a gentle heat to the roots of the plants in the beds. The latter are protected from the weather by a span-roofed box, having hinged shutters, which allow of giving air, and cutting the crops. The heads were of extraordinary size, and the quality good. We understand that the beds are only forced every other year, in order to allow the plants to recover themselves from the effects of the severe cutting to which they are subjected the year they are forced.

In the out-door department, the fruit-trees appear in promising condition. When in full bloom, the principal wall-trees are protected by means of canvas screens worked on rollers, so as to be easily drawn up and let down. The certainty of a crop is thus much increased, and, indeed, can be fully depended on. Some of the Pears trained over the wire trellises on the borders, although showing sufficient blooms for a crop, exhibit in some degree the effects of the two last sunless summers, wood preponderating over fruit-buds.

Mr. Ingram, who is well known to be a successful hybridiser, both as regards fruit and plants, showed us some promising seedlings of Strawberries, Nectarines, &c. under trial, which at some future time may prove acquisitions.

The plant-houses were exceedingly gay, wearing more the appearance of May than February. Of stove-plants, the most conspicuous were Begonias, several of which were in great perfection; more especially Albo-coccinea, a very interesting kind, scarlet and white, the two colours contrasting admirably with one another, and the buds have the appearance of small scarlet globes. Among other varieties were *Prestoniensis*, *Cinnabarina*, *Fuchsioides*, and several hybrids; of the latter, by far the best was a seedling raised by Mr. Meredith, at Cliveden, a few years since; it is of good habit, with fine foliage. It has not been named. *Rogiera spectabilis*, with its large, deep-blush heads of flower, of the shape of those of a *Rondeletia*, to which family it belongs, but more drooping, was in fine bloom, and having handsome foliage, presented a noble appearance. *Bignonia venusta* was rambling luxuriantly over the back wall and rafters, throwing its handsome branches of rich orange blossoms in all directions. In a good situation, with plenty of space, a more handsome wall-plant than this is not to be found. Orchidaceous plants were in the best of health, but not many were in flower. *Amherstia nobilis* has not bloomed here this season; its leaves have been scorched by fuming. Mrs. Lawrence's plant at Ealing Park having suffered of late from the same cause, would seem to show that this fine stove tree will not stand the same amount of tobacco-smoke that most other plants will. The large plant of *Luculia gratissima*, which has

been planted out for several years, has been in flower all the winter, but it is now past its best. *Thelygonum cynocrambe*, with its minute flowers dotted all over the surface of the foliage, if not showy, is a most singular and interesting plant. *Inga pulcherrima*, an old inhabitant of our stoves, but very rarely seen in bloom, was here very gay. The plant is apetalous, but the rich crimson stamens, produced in heads at the extremity of the short spurs, render it a most beautiful object. There were several kinds of *Ipomœas* in flower, the best of which by far was *Rubra cœrulia*.

Of greenhouse plants, *Camellias*, *Epacris*, *Acacias*, *Cinerarias*, *Lachenalia tricolor*, and *Azalea indica*, forced bulbs, Scarlet *Rhododendrons*, and hardy *Azaleas*, made one of the houses in the principal range as gay as it is possible to be at this season.

Of plants worthy of especial mention, we must first take the *Epacris*s. These were seedlings raised by Mr. Ingram, some of which are great improvements on the old varieties, and being covered with flowers, they were the most interesting plants in bloom, particularly some that have been trained as standards, about two feet in the stem, with full, handsome heads. After flowering, the leading shoots are cut back, when new growth is made, and flower-buds are formed for the next winter. At page 17 of the *Florist* for 1852, we presented our readers with coloured illustrations of three of Mr. Ingram's seedlings, viz. *Ingrami*, *elegans*, and *rosea alba*. The former is the best of these; but the most effective are several varieties between *grandiflora* and *miniata*. The large plant of *Acacia pubescens* was at its best, being covered with its bright yellow blossoms. Several seedling *Ericas*, not named but very promising, were in flower, especially a variety between *Willmoreana* and *Linneana*, which we think an improvement on both parents. A bluish purple variety of the Ghent *Azalea* was very peculiar and novel, and in great contrast to the other plants in bloom at this season; it is worthy of more general cultivation.

In *Hyacinths*, *Prince Albert*, single black, and *Lord Wellington*, double blush, were amongst the finest.

On a south wall *Jasminum nudiflorum*, eight feet high, was covered with its golden-yellow blossoms. The late severe weather has been felt here, as well as at most other gardens. *Broccolies* have been much injured. The varieties that appear most hardy are *Grange's improved*, and a carefully saved *Knight's Protecting*; the latter is grown here largely. *Cabbage-plants* and *Greens* have suffered considerably. *Lettuces* have stood tolerably well, the frost not appearing to have done so much mischief as the slugs before winter set in. *Ceanothus* on the walls, and *Escallonia macrantha*, are quite untouched; the latter grown as a standard is much browned, and the points of the young shoots quite cut back. *Shrubs* and *Coniferous plants* appear to have suffered very little.

DESCRIPTIVE LIST OF HARDY CONIFERS. No. III.

I. ABIES CANADENSIS—THE HEMLOCK SPRUCE.

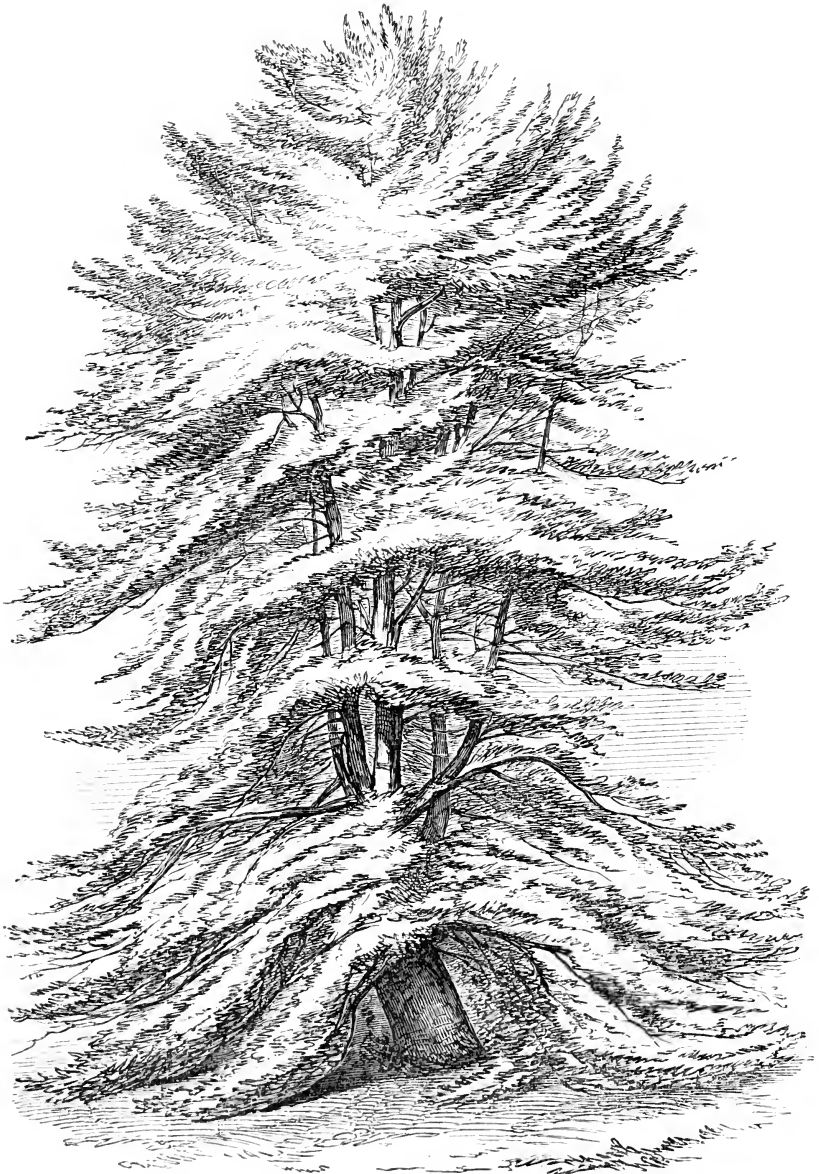
THE accompanying engraving represents a nearly full-grown tree of the Hemlock Spruce growing in the woods at Bowood, the residence of the Marquis of Lansdowne. We have selected the Hemlock Spruce for our present illustration, as we venture to think sufficient justice has not been done to its merits as an ornamental tree ; for although it has been introduced to English gardens for more than a century, we rarely see it, even in situations where its graceful habit and feathery foliage would render it an essential assistant to the landscape planter. For, in opposition to the general habit of coniferous plants, which more or less assume the spiral form, the Hemlock Spruce may be considered a round-headed tree ; and as such may be introduced, not only to break up groups of spiral-headed evergreen trees, but planted in the foreground of plantations or masses, its peculiar character is brought out ; and it is in such situations, or as a single specimen, where its light, feathery spray can sweep the ground, that it is seen to most advantage.

The Hemlock Spruce is indigenous to the northern part of the American continent, from Hudson's Bay (where it forms a low scrubby bush) to Carolina. In Canada, Nova Scotia, and the older settlements of North America, it forms large forests, and is the tree most commonly met with, conjointly with the Black Spruce. It does not appear, however, to be a mountain tree ; but seems to delight in sheltered situations at the foot of higher grounds, where the atmosphere is somewhat damp, and in which it attains its greatest size. But the tree does not confine itself to such localities, for it occupies an immense space of the sandy flats so common to North America ; but refuses to thrive, both in America and in this country, on a soil positively wet.

In America, trees are frequently met with 100 feet in height, with trunks of corresponding size. The plant engraved is 70 feet high, with a trunk measuring 8 feet 6 inches in circumference at three feet from the ground. From being overcrowded with other trees, it is not so thickly set with foliage as it would otherwise have been, and which is found to be the case wherever the tree has room for its branches to extend under full exposure to light.

When planted thickly, and generally on its native soil, the tree rises with a straight trunk ; but when planted singly, it frequently becomes forked, which, after a certain height, again divides into several branches (as our cut shows). This, in young trees, should be prevented by timely removing such, and helping the tree to keep to a single stem. The branches are numerous and slender, and thickly clothed with neat, small leaves of a deep green colour, relieved by a stripe of white on the under side. In its young state, the Hemlock Spruce is noted for its pendulous habit, the ends of the branches and lateral shoots drooping, so as to form (as Loudon observes), a kind of evergreen weeping willow. As the plant, how-

ever, advances in age, this partly wears off. The older branches take an easy curve as they extend from the trunk, and as the tree



ABIES CANADENSIS—THE HEMLOCK SPRUCE.

becomes fully grown, rise again at the extremities, forming those "lines of beauty" which, taken in connexion with the pleasing character of its foliage, produce a tree expressive of the graceful and elegant.

We are informed that the timber of the Hemlock Spruce is not of great value in America, being principally used for in-door work, as it soon decays when exposed to the influence of the weather, arising, no doubt, from the absence of turpentine, of which its wood contains but little. In this respect we consider the tree unworthy of notice, but as an ornamental tree, we submit, with all deference to collectors of Coniferæ, that the Hemlock Spruce should not be overlooked by their preferring kinds of more recent introduction, which, in many instances, have not much more than novelty to recommend them.

II. ABIES BRUNONIANA—BRUNONI'S OR THE BUSHY SPRUCE.

This is a species of rather recent introduction from the Himalayas, where it is found occupying deep valleys, and the flanks of mountain ranges in Nepal, Bhotan, and the Sikkim, at an elevation of from 6000 to 10,000 feet above the sea-level. This plant is closely allied to the Hemlock Spruce, from which it differs in having leaves much larger, of a lighter colour, with the white on the underside more distinctly marked. Young trees only are to be seen in British gardens, and they present the same pendulous or weeping habit which characterises the Hemlock Spruce. Dr. Hooker considers *A. Brunoniana* as being "by far the most beautiful of Sikkim Pines, whether as an individual tree, in groups, or in forest masses." It reaches the height of seventy or eighty feet, and forms a bushy, wide-spreading tree, with a trunk of great size; the dimensions of one is described as being twenty-seven feet in circumference at five feet from the ground. In British gardens the plant is considered rather tender; and in the north of England should have a sheltered situation and a dry soil. In the latitude of London it appears hardy, our own trees not having suffered in the least from the late severe weather. The plant should be well watered in dry weather, as any check when growing causes it to throw off its old leaves, and we thus sometimes see it presenting a naked appearance, which may be avoided when the above is attended to. It forms a well-defined variety among coniferous plants.

III. ABIES MENZIESI—MENZIES' SPRUCE.

A native of the north-west coast of America. Seeds have been first sent by Douglas to this country. This Spruce attains a considerable height, and is remarkable for the glaucous appearance it presents even at a distance. The leaves are of a slight vivid green, with a distinct silvery line on their under-surface, to which the effect above is owing. This species grows in a regular pyramidal form, like the common Spruce; but its light silvery appearance makes it very distinct, and worth planting extensively, for the contrast it affords to plants of a darker green.

ON PRESERVING SEEDS FROM BIRDS.

As the time of year has now arrived for sowing Seeds, it may be of some importance to know how to preserve them from being destroyed by chaffinches, greenfinches, &c. as soon as they make their appearance above ground.

All gardeners know the difficulty of keeping these little intruders at a respectful distance from their seed-beds in spring. My plan of doing so is simple but effectual: with me it is no new discovery, having practised it with the greatest success for these last six years. I have tried it with vegetable seeds of all kinds that birds will attack. I prepare my seeds before sowing, and when that is done, I can follow any other part of my business without any further care, as far as birds are concerned. My plan is this: I have a flower-pan, a new painter's brush that has never been used for any other purpose, a bottle of turpentine, and a quantity of red lead; these are all kept together in a small basket, ready for use at any time when they are required. The seed-beds being ready, as much seed is put in the flower-pan as is required to be sown on each separate bed; a little turpentine is then poured on, and the red lead added; it is then well worked round the pan with the painter's brush until every seed has become thoroughly coated. Care should be taken in the first instance not to use too much turpentine, as it takes more lead than is necessary to dry it up again, in order to get the seeds well separated before they are sown. When seeds are well coated as above, the rain never washes it off, and it does not destroy the vitality of the seeds in the least. I know that red lead was recommended for the same purpose some years ago; but used with water alone, I found it could not be depended upon. I have long known that birds do not like the smell of turpentine, but to test this knowledge I used two sorts of sawdust for the same purpose; one sort was from foreign deals which contained a large portion of turpentine, the other was from elm, and of course contained none: the birds did not at all like the former, but the last named was not the least protection, as I have often seen them basking in it on a sunny day. This is the third year I have tried it with autumn-sown Peas as a protection against mice; they have once or twice tried a row, but that trial, in all probability, cost them their lives. Of the Peas I sowed last autumn not one has been touched, though I know that there are mice in the garden.

Taplow Lodge.

J. HOLLAND.

 REVIEWS.

Garden Almanacs for 1854.

WE have carefully perused these productions, five in number, commencing with *Glenny's*, in which we regret to find so much scurrility and abuse, and so little of that kind of information on gardening

matters which one looks for in such remembrancers. In Dahlias, for instance, the names only of new varieties for 1854 are given, without a comment on their respective merits; so that purchasers have not even the benefit of Mr. Glenney's opinion to guide them. On turning to the *Trade Directory*, we find that the list of Nurserymen has been compiled with little regard to accuracy. For instance, BARNET, HERTS, has *Kemp and Co.*, who left the business some years since, and the Nursery was taken by Mr. Cutbush; at SALISBURY, *Moody* and *Milford* are both given as separate nurserymen, although it is well known that Moody died years ago, and that Milford was the name of the place where his Nursery was situated. Again, at WELLS, *Messrs. Gidding and Rees* are mentioned as the resident Nurserymen, whilst *Mr. George Edwards* is the proprietor of the Nursery formerly occupied by them. Some of the persons named in the Irish list have left for America years ago; and we could point to many other palpable errors that might have been easily rectified, if the necessary inquiries had been made.

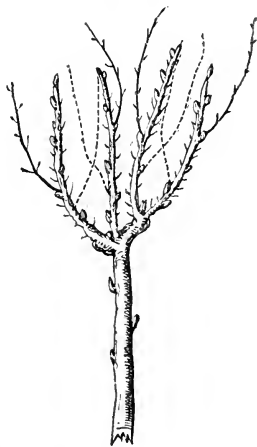
On opening *Harrison's*, we found a coloured misrepresentation of Messrs. Veitch's *Philesea buxifolia*, and much serviceable information on general subjects; but in the list of Nurserymen, we are sorry to say that errors are abundant.

We have looked in vain through the pages of *Johnson's* for some account of the gardening topics of 1853, and can find nothing but a calendar of operations, which, in its way, may be valuable enough; but where is information respecting new plants or new Florist flowers? And the list of Nurserymen is compiled in the most careless manner imaginable; for instance, Mr. C. Turner, of the Royal Nursery, Slough, still stands *C. Turner, Chalvey*, near *Windsor*, although he left that place five years ago; and at *Slough* (which Mr. Harrison tells us is in *Berks!*) Mr. J. puts *W. Cutler* (it should have been *Cutter*), who left more than five years since. Again, Mr. Thomas Barnes, of Stowmarket, is now a well-known personage in the Floricultural world, and has for a long time occupied the Nursery formerly held by the late Mr. Girling; and yet the latter name is still given as a Nurseryman there, and not Mr. Barnes's. It is also well known that Mr. F. Warner of Cornhill, and Messrs. Knight and Perry of Chelsea, had each retired from business, and it ought to have been known to Mr. Johnson; but he appears to have been uninformed of the changes which these firms have experienced. Let us hope that these, and innumerable other errors which we could point out, may be rectified in the issue for 1855.

Edwards' National Almanac, though young in years, is certainly far in advance of the others; and though not free from errors, they are very trifling compared with those we have just pointed out. Among other things, it contains a well-arranged list of new plants, with descriptions by Mr. Thomas Moore, of the Chelsea Botanic Gardens; also a list of all the best fruits by Mr. J. Powell, of the Royal Gardens, Frogmore, showing when they are in season and their respective uses; and likewise a list of the best fruits for cultivation under glass. Much other practical information is given, including a

carefully revised calendar of operations for the year, and notices of new Florists' flowers. Mr. Edwards gives, moreover, a mass of information respecting Horticultural Societies and their Exhibitions; and we can here refer with some satisfaction to the list of Nurserymen, as our knowledge of the Trade leads us to believe that the corrections are made up to the close of the year. A correct list of the Trade and leading Horticulturists has long been wanted, and Mr. Edwards has done much towards supplying that desideratum. What his compeers have done is best shown by the amount of errors apparent in their productions. Mr. Edwards has given some well-timed remarks on Rose-pruning, which are so suitable to the present season that we venture to extract them. They are by Mr. Wilkinson, of the Rose Nurseries, Ealing, who says :

“ The introduction of a woodcut of a closely-pruned Rose in last year's Almanac, induced some subscribers to ask for more information which it seemed to foreshadow, we therefore present the following general instructions ; it is, however, hoped that the practical ideas will be of such assistance to the amateur, as to prevent the all-but fatal operations generally performed under the above title ; neither can an attempt be made to particularise the treatment necessary for the several families ; their growth, to which our subject alone refers, will be readily comprehended by the terms luxuriant or short growing, and tender. Budded Roses when received from the Nursery are generally one year old, and during the first season the knife must be sparingly used ; but after all chance of severe frost has disappeared (early in April), the branches should be cut back to four or five eyes, having previously cut out all growth that interferes with the shape the sketches illustrate, being especially careful in performing the former operation, *to cut to an outer bud*. The following illustration of a budded Hybrid Perpetual, when received from the Nursery, shows, by the marks, where the knife is to be used ; and further to exemplify the great advantage of adhering to this principle, the next sketch shows the results, after the first pruning, where it has been attended to and where neglected ; the single lines showing the former, and the dotted the latter.



“ During the following October, any shoots which started in the centre of the head, or any cross branches, may be entirely removed ;

but the shortening the branches leave till April, as the bud to which the branch is cut may be destroyed by frost, &c.; this would necessarily produce the very growth these directions, when attended to, will prevent.

“With erect-growing varieties, as Mrs. Elliott (H.P.), Madle. Armé, &c., the shape of the plants, when young, may be often much improved by ligatures, training the branches into a more outward direction.

“In shortening the shoots of the majority of Hybrid Perpetuals, four or five eyes should be left; but when of luxuriant growth, as Louis Bonaparte, &c. shorten the branches to about half their length, and with the more robust summer-blooming varieties, take off about one-third only, keeping the centre of the head well thinned; any thing like short pruning, with such subjects, being productive of abundant wood and scanty blossoms.

“In the short-growing Hybrid Perpetuals and Bourbons two or three eyes are sufficient to be left; in the tender Tea-scented and Chinas, all weakly growth should be removed, and the shortening the branches must be performed with care; and, as in several varieties the eyes are far apart (recollecting the previous directions), the amateur must use his own discretion.

“Dwarf, Moss, and Provence Roses can scarcely be pruned too severely; the Persian Yellow and the other Austrian Briers too slightly, as not more than about an inch of the point of the shoots must be removed, as these varieties bloom only on wood of one year old.

“Before concluding, it may be remarked that summer pruning is often desirable, and frequently saves much trouble. This may be effected to a great extent by cutting the blossoms for ornament, or when decaying; and several varieties, such as Hybrid Perpetuals, William Jesse, Duchess of Sutherland, &c. will, by reducing a moiety of their branches to one half their length in July, be much more certain to give autumnal blossoms; besides which, much unseemly growth may be easily checked when in a young state; and it may be, in conclusion, remarked, that the form it is most essential budded Roses should assume is that of an expanded inverted umbrella, which insures the perfect ripening of the wood, and consequent certainty of bloom. Supposing these operations are to be performed on wood one year old, the pruning scissors and a knife are all the tools required; where older wood is to be removed, a double-toothed *key-hole* saw will be requisite, not neglecting to make clean cuts with the knife after wounds made by either of the other instruments.”

Last of all, we have *Glenny's National Sheet Almanack*. Why he has taken Mr. Edwards's title, we are at a loss to conceive; and it looks unfair towards that gentleman. Of errors it has enough. *Fuchsia* is spelt *Fuschia* in every instance, and it contains nothing of any importance.

GOSSIP.

WE find that the effects of the late cold weather have been felt much more severely in some localities than in others. The same plants that have entirely escaped in some parts, are, to all appearance, killed in others. *Taxodium sempervirens*, at Dropmore, is as green and beautiful as if we had not experienced any cold weather. At Dropmore they have a dry, gravelly bottom, so that their Conifers and other plants ripen their growth early, and thus escape injury. In some parts of Surrey, and several other places, we are informed that this plant (the *Taxodium*) has a very brown appearance, and is much injured by frost.

The *Cryptomeria japonica* does not appear to be greatly injured, but in some places it is much discoloured. The different effects of the frost on more common shrubs is very remarkable. About Windsor, Eton, and for some miles round, the Sweet Bay appears to be the only shrub much injured; whilst in Cambridgeshire we have seen Laurel hedges, from fifteen to twenty years old, cut to the ground; Bays and *Laurustinus* sharing the same fate. Portugal Laurels also are very much browned in the same locality, and evergreen Oaks had lost all their leaves, and to all appearance were dead; but there is no doubt that they will break again. In the neighbourhood of Norwich many things show the severity of the late winter, and very few Portugal Laurels have a green leaf upon them. Sweet Bays, Aucubas, and *Laurustinus* were nearly as bad; but the most remarkable instance that came under our notice was a piece of *Deodars* about two feet high. These were completely cut to the ground. In Wiltshire it has been keenly felt among shrubs, as well as in some districts round the metropolis. Before destroying any plants that may appear dead, it will be as well to wait a little, in order to ascertain if there is any chance of their breaking again, which many shrubs doubtless will do.

The fine Pinetum at Dropmore has escaped without injury; but at Elvaston considerable damage has been done. It will be some time before we arrive at the extent of the injury sustained generally.

Since our last Number, the Horticultural Society has published its list of prizes to be awarded in 1854; and we regret to learn that it is such as the great body of exhibitors is disappointed with. There are great changes and considerable reductions. Several subjects that formerly received prizes are entirely omitted. Fruit growers have nothing to guide them, all is left to chance, and a very poor one it will be to the exhibitor. Should an exhibitor in this class be fortunate enough to obtain a medal under the new rule, he will not know if he is *first, second, or third*. If the Society is poor, and cannot afford to do otherwise, it is much to be regretted; but we must be permitted to say that we think the aggregate amount could have been better divided, and that to recruit the finances of the Society, a very injudicious step has been taken, a step in the wrong direction. A little liberality might have regained the prestige the Chiswick

fêtes have lost, and at the same time replenished the exchequer of the Society.

If less company attend these meetings, it is solely on account of there being a less variety of plants at the exhibitions than formerly. In 1854 there will be less still. Why are not new subjects patronised? Hybrids, if home productions, are entirely ignored. Two ends would be gained by encouraging the raiser of seedlings; the exhibitions would be more interesting, and it would at the same time recognise the exertions of those who have so greatly improved our Azaleas, Rhododendrons, Cinerarias, Pelargoniums, Ericas, Fuchsias, &c., &c. A newly-introduced plant without beauty or novelty would be noticed, to the exclusion of the finest home productions, however meritorious.

This, we feel assured, is not in unison with the wishes of the majority of the Fellows of the Horticultural Society, or of those who merely patronise its exhibitions. In the new schedule of prizes, with two exceptions, all exhibitors are classed together. The professional grower with the amateur, the dealer with his customer.

This will cause great dissatisfaction, and we should be pleased to see the society working in happier unison with the exhibitors. The Society appears to have lost sight of one important point, namely, that the exhibitors can do without the patronage of the Society, if the Society can do without them. That is the question.

If the only schedule yet published of the metropolitan exhibitions is not satisfactory, those of the provincial societies are, on the contrary, very encouraging. At Derby, on the 3d of August, the National Carnation and Picotee Society will hold its fourth annual meeting. Twenty-two consecutive prizes are offered for 12 blooms; sixteen consecutive prizes for 6 blooms; and eighty prizes for single specimens, amounting to 73*l.* 10*s.*, and besides, 11*l.* 10*s.* for Hollyhocks; making a total of 85*l.* This is in addition to the prizes of the Midland Horticultural Society, to be awarded on that occasion. Such liberality cannot fail to bring together all the leading growers of the kingdom.

It is in contemplation to hold an exhibition of Hollyhocks in London some time in August. It is found that the Carnation shows are too early, and the Dahlia shows too late for the Hollyhock to be in perfection. As far as we can render aid to such an undertaking, it will be cheerfully given. If the proposed Show could be fixed about the 20th of August, Dahlias would then be fine, if not in general bloom, and would be a great auxiliary.

EFFECTS OF THE WINTER AT KEW.

THE ill-effects of the past winter are very apparent here on nearly all the evergreens; indeed few shrubs, either hardy or half hardy, are to be seen at present wearing a cheerful green aspect. The preceding

summer, it will be remembered, was unusually wet and cloudy, consequently the young wood was not sufficiently ripened, and therefore less able to withstand the severe weather it had lately to encounter. Numbers of New Holland and New Zealand shrubs, that have stood out for years uninjured, are this season cut down to the ground, and in many cases completely destroyed. Several species of *Acacia*, against the walls, including large specimens of *Affinis*, which had stood several years, are now quite killed. *Eucalyptus pulviger*, and *E. amygdalinus* are killed, and many other species of this genus are all injured to a greater or less extent. *Benthamia fragifera*, where it is exposed, is dead; but against the wall it will only lose its leaves. *Garrya elliptica*, in exposed situations, has suffered severely by having its leaves browned. Evergreen Oaks and the Chinese Privet will lose mostly all their leaves, being, to all appearance, scalded, and fast falling off. The common Bay tree is very much browned all over, and numbers of fine young plants of it, from two to four feet high, seem quite dead. *Arbutus procera*, against a wall, is scarcely hurt; but where it has been planted as a standard, its leaves are all injured. The evergreen Beech (*Fagus betuloides*) will this season become deciduous, its leaves being all browned and falling off. *Picea Webbiana* will also lose its leaves. *Taxodium sempervirens* is so much browned that it will be a long time before it recovers. *Cryptomeria Lobbi* has had its young shoots nipped; but it is perhaps not killed, though it looks very sickly. *Pinus tecote*, *P. insignis*, *P. cephalonica* and *P. rudis*, are all very much browned, and in some cases appear doubtful of recovery. *Araucaria Bidwilli* will not prove hardy; a plant of it here, four or five feet high, against a west wall, though covered up with a mat, has had all its branches killed. The Chinese Fan-palm (*Chemærops humilis*) appears very hardy, as it is not injured, though it has only had the slight protection of a little loose fern around its stem.

J. HOULSTON.

ORCHARD-HOUSES AND GLASS-CASES.

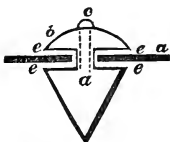
No. II.

MR. EWING'S glass walls next demand attention; these form an elegant addition to our gardens, and consist of two perpendicular faces of glass placed in iron frames some 2 or 3 feet apart, and 10 feet high; these enclose a double trellis, for training two sets of trees to; the upright sashes are made to slide in a groove at top and bottom, for the purpose of giving air and managing the trees. The material and finish of these walls are such as to render them comparatively expensive; but their ornamental appearance is much to be commended where circumstances admit of their erection; they have not been long enough under trial to speak yet of their merits in respect to their value for securing and ripening the finer kinds of fruits.

But it is not so much entire erections of glass for fruit-growing as the casing or covering of existing walls which we more particularly wish to notice, as the latter present advantages which neither glass walls nor orchard-houses confer; and if the walls are covered with trees at present in a bearing state, the cost of covering such with glass will not be a very expensive affair, while the certainty of a crop of fruit of first-rate quality, taken in connection with the number of years such a protection will last, are, to me, valid reasons for recommending a plan at once *safe*, and, in the long run, *economical*.

One great advantage in favour of covering existing walls, as compared with erections entirely of glass, is the retention of heat for a considerable time after the direct effect of the sun-rays have ceased to act on them, the result of which is, the interior air inclosed between the glass and wall will take a longer time to reach its lowest point than in orchard-houses, which, again, have the advantage of glass walls, in this respect.

To explain this more fully, I may remind my readers that some substances or materials receive heat, and consequently part with it, more slowly than others; hence, in comparing the interior of glass cases against a wall of brick, or similar materials, as a medium for fruit-trees with houses built entirely, or mostly of glass, it must be obvious that the brick wall will take up some part of the heat passing through the glass into the house during sunshine, giving it out again whenever the inclosed air becomes cooler than the wall; whereas, with a house having glass on all sides, a portion of heat entering the house from one side will pass through on the other; or rather will cool rapidly by coming in contact with glass acted upon by an external air many degrees colder than the air within. Such will always be the case, in a greater or less degree, even when such houses are placed (as they always should be) in the direction of north and south. By a comparison of the temperature of the interior of orchard houses and glass walls with the external air, it does not appear there is much gained in temperature, especially with glass walls, for reasons explained above; but *dryness* is in a great measure secured; and with that a *low* temperature is comparatively harmless, while the rapid transition from one extreme to the other—a high temperature to an injurious low one, so frequent in our

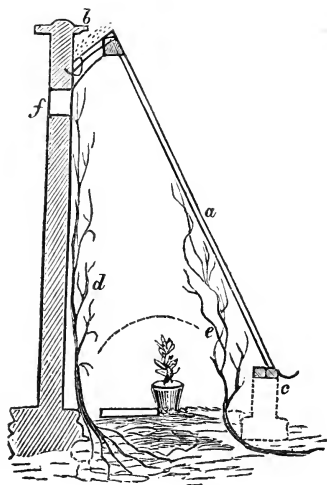


SECTION OF SASH-BAR.

a, bar, lower part; *b*, bead, to be screwed on glass; *c*, screw; *d*, glass; *e e e*, the space between wood and glass, for strips of India-rubber.

climate during March and April—is mitigated; in addition to which, the increase of solar heat, obtained through the medium of glass during summer, the dryness of which can be adjusted according to the stage of the plants' growth, is not only favourable for carrying on the fruit to perfection, but the wood of fruit-trees subjected to such advantageous conditions, is sure to become well ripened, hard, and firm, with numerous well-developed buds, so as greatly to increase the chances of a succeeding crop.

The annexed cut may represent perhaps the cheapest and best way of covering a 12 feet wall with a glass front. *a* being the glass, which should be fixed at once on sash-bars, 10, 12, or 15 inches wide; the glass should not overlap, but be laid on strips of India-rubber, on which a bead should be screwed, so as to keep the whole tight. *b* is the top ventilators, hung on to a plate against the wall with hinges. The dotted lines represent them as opened. *c* is for ventilation at bottom, which should consist of louvré boarding, to open and shut when wanted, by means of wires from within, or it may be formed of sliding boards.



d, existing trees; *e*, plants to occupy the front, &c. as may be required; *f*, ventilator in back wall, to be used in bad weather.

Our remarks have been entirely confined to the benefits to be realised from employing glass alone, unassisted by artificial heat; but where hot water or flues can be introduced, the last description of house would be found one of the cheapest modes of forcing grapes and other hard-wooded fruit-trees, and quite as capable of producing fruit of good quality, as houses built from far more expensive designs; but we reserve our observations on this point to another opportunity.

JOHN SPENCER.

THE GENUS KALOSANTHES.

SOME of the species of this genus are amongst the most showy and fragrant of summer-flowering plants, and they deserve to be more generally cultivated than they have hitherto been. The magnificent specimens annually produced at the great metropolitan exhibitions in July indicate the capabilities of the genus, and good plants are frequently produced far from the scene of these meetings. I doubt, however, whether any genus equally deserving attention is so commonly neglected or mismanaged by country gardeners as this. With a little care the flowers remain in perfection for some six or eight weeks, and the plants will be found exceedingly useful in the show-house, to take the place of the Azalea, when the beauty of the latter is over.

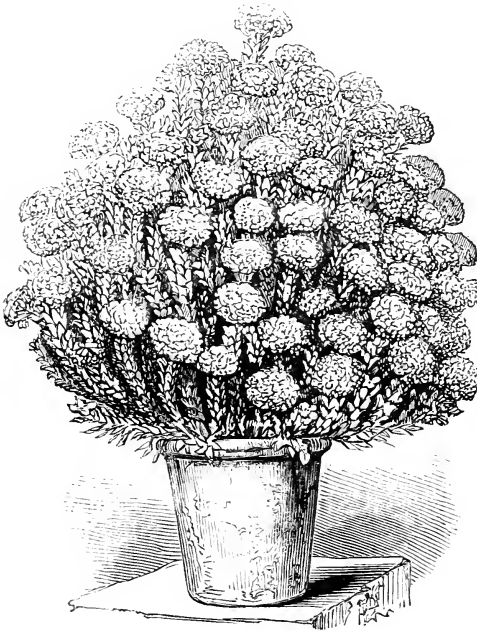
Young plants intended for specimens should be dwarf and bushy, with strong well-ripened wood; those that may have been wintered in a soft, half-growing state should be rejected, as it is difficult to get them to break freely or grow vigorously. Place them early in March

in a mild, growing temperature of from about 45° at night to 60° with sunshine. The shoots must be stopped or cut back, as may be necessary to insure a compact, bushy growth; and young branches will be produced much more freely, if two or three pairs of leaves are removed from the points of the shoots; and this should always accompany stopping. If the roots are abundant and active, shift into pots two sizes larger than those the plants are in; but first see that the ball is properly moist, and be careful to have the soil to be used in the same condition. Nothing is more likely to cause failure than neglect of this. The side-shoots should be tied out, keeping them near the surface of the soil. Keep the atmosphere rather close and moist, and water carefully till the roots start into the fresh soil. When the plants have broken and are fairly started, the temperature may be increased to about 55° at night, and from 65° to 75° with sunshine. This high temperature must not, however, be maintained without a free circulation of air; for the *Kalosanthes*, like most Cape plants, very much dislikes a stagnant atmosphere, and it requires all the light which can possibly be afforded it; therefore admit air freely, and keep the plants near the glass.

In May, or as early as warm weather sets in, they may be removed to a cold frame, where, with a little care, they can be kept sufficiently warm, and where the conditions most conducive to vigorous growth will be readily supplied. Air should be freely admitted whenever the state of the external temperature will permit; although a stagnant humid atmosphere is injurious, with a circulation of air it cannot be kept too moist; if they stand on a bed of coal-ashes, this should be watered on the mornings of bright days, and the plants sprinkled over head towards evening, leaving a little air on during night, and a thin shade should be thrown over the glass during the forenoons of bright days, but use this sparingly. A liberal supply of water will be necessary whilst the plants are in active growth; but give them no more than is requisite to keep the soil in a healthy moist state, and when the pots are moderately well filled with roots, manure-water in a clear weak state may be used with advantage two or three times a-week.

The treatment of the plants after midsummer must be regulated by the size of the specimens desired. To produce large flowering plants, such as that represented in the accompanying wood-cut, it will be necessary to grow them two seasons, and in this case they should be stopped and potted early in June, as they may have filled their pots with roots. Have an eye to the formation of compact dwarf specimens, and stop and cut back as freely as may be necessary to secure this; for they break freely, and there is no danger of injuring them by stopping or cutting back. If plants to produce about a dozen heads of bloom each are all that is wanted, with good management this may be secured by one season's growth; but if large specimens are desired, it will be necessary to grow them two seasons. Plants intended to flower the following spring should receive a rather large shift at the beginning of the season, and must neither be stopped nor potted after the end of June. It is easier to produce large handsome specimens

of *Kalosanthes* than to have well-flowered plants; and unless the wood is thoroughly ripened previous to winter, it will be useless to expect a fine display of blossom. The necessary maturation of the wood can be effected only by subjecting the plants to full exposure to air and sunshine, and keeping the soil in a rather dry state. This change of treatment must be introduced very gradually; but if a fair amount of flower is expected, the plants should be inured to it by the middle, or at latest the end of August. Those that were repotted may be treated less hard during autumn; but care must be used to get the wood of these well ripened before winter. If they can be



placed near the glass in a house where Grapes are preserved during winter, they will be suited perfectly; and as they require very little water at the root, they will be less injurious there than most plants.

The best situation for the flowering plants during spring is the front shelf in the greenhouse. They should be kept freely exposed to air and sun; and after the appearance of the flowers, the atmosphere can hardly be kept too dry. A moist stimulating atmosphere promotes growth; and the effect of this would be an unsightly lengthening of the stems, an occurrence by far too common. When the flowers assume their proper colours, remove them where they can be kept dry, cool, and shaded from the sun.

Plants intended for large specimens should be stopped and potted in March, and treated as already recommended for specimens intended to flower the following spring.

Propagation is easily effected. I generally select firm young shoots with several branches, and plant them in 4-inch pots in sandy peat, placing them in a close pit, carefully shading them till rooted, which will be in about a month. As regards soil, this should be light but rich; half turfy sandy loam and half fibry peat, with a liberal allowance of sharp silver-sand and small potsherds, broken bones, or charcoal, will be found a suitable compost. Strong tenacious loam had better be avoided, or at least used very sparingly. The peat and loam should be broken up into pieces about the size of a nut, and intimately mixed with the sand, &c. previous to use. Secure perfect drainage by placing plenty of potsherds, properly arranged, in the bottom of the pots, covering with some rough fibry pieces of peat, so as to prevent the soil being washed down among them.

Beckenham, Kent.

J. B.

CHRYSANTHEMUMS.

IN giving a list of large-flowered varieties of Chrysanthemums, it should be borne in mind that a great difference of opinion exists as to which kinds really are the best; or, in other words, what constitutes a perfect Chrysanthemum.

It is to be regretted that we have no recognised standard for this flower. Scarcely two opinions agree on this point. Some are advocates for *cupped* varieties, of which, perhaps, Vesta may be considered the type; others like *incurved* sorts, than some of which none are more beautiful,—as, for example, Plutus, Themis, Goliath, &c.; and others, again, are advocates for *reflexed* flowers, of which class perhaps Annie Salter may be considered the best. Now, we admit that these are all beautiful in their way. The question then arises, which style of flower shall give place to the other; and here we are met by a difficulty such as we do not experience in regard to any other Florist flower—certainly not to the same extent; for in most cases we seem, almost by common consent, to recognise the form which appears the most beautiful and pleasing; but here we have, in what are termed show-flowers, three very distinct forms. Take Vesta, Annie Salter, and Plutus, and who will determine which of these is the most beautiful? Can any one assist us in this matter? It does appear desirable that a standard for this flower should exist. Until then, the exhibition of Chrysanthemums to a certain extent is a game of hazard. In the following list I have endeavoured to furnish you with the names of the best varieties, without reference to their being either cupped, incurved, or reflexed flowers, having grown the whole, with the exception of two varieties; and those I have seen well done, and can confidently recommend them.

I have marked with a star seventeen which I consider the most

superior, although the whole list comprises what may be termed good show-flowers.

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| <ul style="list-style-type: none"> *Annie Salter, bright golden yellow, reflexed. Aristides, yellow and orange. *Beauty, blush, fine. Campestroni, purple, large, incurved. *Christopher Columbus, bronze. Christine, large light pink. Cyclops, fawn. Crysipe, rosy purple. *Defiance, fine incurved white. Duke, blush. *Dupont de l'Eure, carmine, very fine. Fortune, orange red. *Formosum, pale yellow. *Golden Cluster, fine golden yellow. Goliath, sulphur, fine, incurved. Hercules, fine orange. *King, peach, fine. Leon Laquay, lilac. *Lycius, bronze. Madame Corbay, rosy white. Miss Kate, silvery lilac. *Nonpareil, rosy purple, very fine. | <ul style="list-style-type: none"> Phidias, light rose. *Pio Nono, red, tipped with gold. *Plutus, pale yellow, extra fine. *Queen of England, large incurved blush, extra. Rabelais, carmine. Rebecca, rose. *Rosa mystica, light rose, fine. Sydenham, red. *Themis, rose, extra fine. *Two-coloured incurved, orange and red. Versailles Defiance, lilac. *Vesta, best white. Warden, buff. <p style="text-align: center;"><i>Six best Anemone-flowered.</i></p> <ul style="list-style-type: none"> Fleur de Marie, white, extra. Gluck, bright orange. Madame Godereau, sulphur. Marguerite d'Anjou, buff. Marguerite d'York, yellow. Sulphurea pallida, sulphur. |
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W. HOLMES.

Hackney.

[The above remarks respecting the different classes of Chrysanthemums are perfectly correct and well-timed. We therefore trust that some of our correspondents interested in the matter will give us their opinion on the subject —ED.]

MEMORANDA FROM KEW.

HEXACENTRIS THUNBERGIA COCCINEA. This handsome evergreen hot-house twiner is one of those which develop their flowers during winter. Although it grows and flowers freely when cultivated as a pot plant, producing flowers even in a small state, yet if it is allowed sufficient pot and head room, it will attain a large size, and then becomes a beautiful ornament for a hothouse. An example of it, planted out in the great Palm-house here, is trained against a trellis near the glass, where it covers a space of 20 feet by 15, and is at present very gay with flowers, and has been for a month past, and in all probability it will remain in beauty for a month to come; its flowers are borne in pendulous racemes a foot long, and are of a scarlet and orange colour. It is a native of the East Indies, and is an old plant in gardens.

CERTRADENIA DIVARICATA. Three species of this genus are at present cultivated in our stoves; they are all dwarf evergreen shrubs of a neat, close, compact habit, with smallish leaves and light-

coloured flowers, and, as ornamental plants, are particularly interesting. The present, which is of recent introduction, was received at Kew last year from Messrs. Henderson, of the Wellington Road Nursery, St. John's Wood. It is of a much-branching habit: grows about a foot high, with very slender reddish branches and small lanceolate light-green leaves; the flowers are white tinged with purple, and are borne on the ends of all the branchlets throughout the whole plant.

CENTRADENIA ROSEA. This species is now pretty generally known, having been in cultivation for several years. It is of a close and much-branching habit, has narrow lanceolate leaves, dark-green above and reddish beneath; the flowers are whitish, and rather insignificant, yet, on account of its pretty foliage, it is one of the most conspicuous little shrubs in our stoves. If a few plants of it are grown in small shallow pans or ornamental baskets, and suspended to the roof of the hothouse, they have a very neat appearance; and for this purpose young healthy plants must be preferred.

CENTRADENIA FLORIBUNDA. This species is of a more robust habit than *Rosea*. It is a close and much-branching shrub, and forms a very compact bush about two feet high. It has slender reddish branches, and lanceolate leaves of a light-green colour; the flowers are smallish and rather insignificant.

CROSSANDRA FLAVA. A low-growing evergreen hothouse plant, with leaves six to nine inches long, and not much unlike those of the common Dandelion; the flowers are of a very bright yellow, in imbricated spikes, but only a few expand at one time. It is an *Acanthad* from Sierra Leone; and flowering as it is at the present time, it must be regarded as a valuable winter plant.

It may interest some, especially those who study coniferæ, to know that the *Araucaria imbricata* at Kew has produced cones several times; and that there are at present half a dozen upon the plant. They are very handsome, large, and of a globose form; but as there are no male plants of it here that have flowered (if, indeed, there are any flowering male ones in Britain), the seeds are in consequence all abortive, and, as a matter of course, plants cannot be raised from them.

The following are a few of the best plants in flower here at present:

<i>Stove.</i>	<i>Orchids.</i>
Aphelandra pulcherrima.	Dendrobium heterocarpum.
Poinsettia pulcherrima.	Neottia speciosa.
Rogiera cordata.	Lælia anceps.
Medinilla acuminata.	Ansellia africana.
<i>Greenhouse.</i>	Phalænopsis amabilis.
Anopteris glandulosa.	Oncidium excavatum.
Beaufortia decussata.	" papilio.
Canarina campanula.	" cebolleti
<i>Orchids.</i>	Trichopilia tortilis.
Dendrobium Kingianum.	Eria convallarioides.

In the hot-houses, the *Begonias* form one of the principal features at present, as they are mostly in flower; one or two species deserve

particular notice, more especially *B. papillosa* and *B. conchifolia*; the former is a very showy flowering kind, with pendulous cymes of large white flowers; the latter is of a dwarf habit similar to *B. Umbilicus*, with less showy flowers, though much more abundant: it has been recently introduced from the Continent. *Niphæa rubida* is a neat-looking evergreen dwarf-herb, which is exceedingly pretty during winter; it has velvety leaves, with a red stalk and white flowers, with a yellow centre. It is easily cultivated in a moist stove; several specimens of it here now in flower have a charming appearance. Several Orchids are in flower, among which may be mentioned an *Ansellia* from Natal, introduced in 1852. Its pseudo bulbs are similar to those of *A. africana*, with this advantage, that the pannicles are not only produced from the apex, but all up the pseudo-bulbs; its flowers are fragrant, the sepals and petals are of a light yellow, and the lip of a deeper yellow, without the spots or markings, of *A. africana*. *Lycaste macrobulbon*, a new Grenada species in the way of *L. cruenta*, is developing its large flowers, which are yellow, and spotted at the base of the column. *Eriopsis rutidobulbon*, *Dendrobium pierardi*, *D. speciosum*, and a few other *Dendrobes*; with *Phalænopsis*, *Oncidium*s, and a few others of minor importance, are also at present in flower.

Royal Botanic Gardens, Kew.

J. HOULSTON.

GROUPING TULIPS.

It has been a time-honoured usage to arrange Tulips at planting in order that their colours may be so varied and diversified that no two blooms at all similar shall be in juxtaposition. To effect this, one plan is to begin with a rose, then to take a byblæmen, next a bizarre; and so to continue throughout the entire bed. A more artistic plan, on a similar principle, is to plant the first and seventh of each row with the same variety, say a rose; the second and sixth the same, a byblæmen; the third and fifth the same, a bizarre; the fourth, or middle flower, of the same class as the first and seventh, but of a taller growth; the next row must then begin and end with byblæmens; the second and sixth with bizarres, the third and fifth with roses, and the fourth or centre with a byblæmen. On this plan a bed may be made to assume a well diversified appearance at blooming time; yet season after season do we have the same monotonous arrangement, without change or novelty, except in individual specimens.

I have this year broken the time-honoured rule above alluded to, and in place of this mixed style have adopted that of masses; yes, even masses in my best Tulip-bed! A bed of one hundred rows, of seven bulbs each, *i. e.* seven hundred bulbs in the whole, is subdivided into a series of beds of colours, by planting rows of the same colour, and not simply the row; for to produce the intended effect,

each colour is planted in masses of five rows ; these five rows corresponding nearly in width with breadth, will illustrate the system intended by groups or masses of colour in about equal proportions. I would here ask, if effect and contrast can be nearly so well obtained by the mixed flower-border as by a judiciously arranged series of beds or masses? if the same be desirable, which I dare not gainsay against our most popular authorities on the matter of effective flower-gardening, then why not also attain the same end with our Tulip-beds, when the very material so plentifully abounds, and is wherewithal so admirably adapted to the end in view? That it may be taken by some to be foreign to the use and intent of a Tulip-bed, I will not for an instant doubt ; it may raise the ire of others, who, from custom, would, as they may say, let well alone ; but even these will not prevent me from venturing to recommend to others what I am myself doing, in truth have done ; for be it known, that the one hundred rows, my best bed, is so arranged and planted at Wace Cottage ; nor do I await with more than ordinary anxiety their flowering.

Permit me briefly to go into detail, thus :—Rows 1, 2, 3, 4, and 5 are all byblæmens, containing first, second, third, and fourth row flowers in their proper places, and mostly on the duplicate principle, as before explained ; rows 6, 7, 8, 9, 10 are bizarres, similarly circumstanced ; rows 11, 12, 13, 14, 15 being roses ; the next five rows are byblæmens, then five rows of bizarres, followed again by roses, and so on the whole length : it is thus shown that I have produced twenty masses or groups, seven byblæmens, seven bizarres, and six with roses. I experienced but little difficulty in carrying out the scheme, although my stock is not what is termed a large one, a few trifling additions alone being needed. It was not for effect alone by which I was guided in this determination ; the annual National Exhibitions make it imperative on all who would win fame at these monster meetings that no effort be disregarded in the discrimination which is absolutely necessary in selecting blooms after the acmé of cultivation may have been secured ; here then, by the plan propounded, do I facilitate and lessen the cares consequent on selecting for cutting when the all-important hour for packing-up arrives. My Platoffs are perhaps largely predominating in one group, Heroines doing ditto in another, while Captain Whites have the same claims to a third. Does not this simplify the means of selection? are we not in an improved position to find the best of any given variety? Take, for instance, feathered roses : I turn to Heroine, and actually demonstrate the argument by one simple fact ; with myself Heroine is classed as a second-row flower, and, my book tells me, is to be found the second and sixth in rows 26, 27, 28, 29, 30 ; here, then, have I ten bulbs planted all in their true positions, and at blooming-time each under the eye at the same time. What inquiry and indecision will such save ; and may doubtless lessen the number of flowers actually cut, by affording ample means of comparing one with another ere amputation be performed ! Other varieties are to be found under similar circumstances ; thus Princess

Royal byblœmen is the second and sixth in rows 76, 77, 78, 79, 80; Pilot, *the ever-to-be-remembered flower*, first and seventh in rows 6, 7, 8, 9, 10. Of course, the scarce kinds do not so abound; my Arlettes, Gems, Kings (Strong), Salvator Rosas, Venuses, Charles Brown (late Brown's Polyphemus), &c. &c., may perhaps be found but once or twice, still they are dealt with on the same principle as their more plentiful though no less aristocratic compeers.

I invite the inspection at flowering-time of all whom my arrangement may interest; not without some hope that a visit may, if not repay, at least settle the point whether, on the score of change or novelty, Tulips in Groups may not be worth entertaining by those who, like myself, have for years trodden the same monotonous road, and from which perhaps it may be few will care to swerve. Come, I say, one and all, and judge for yourselves of the effect of TULIPS in GROUPS.

JOHN EDWARDS.

CALENDAR FOR THE MONTH.

Auriculas. These will require more moisture now that they are throwing up their trusses of bloom, but give plenty of air. Cover carefully during frosty nights; being in a growing state, they are much more likely to be injured in March by frost than at any previous time. If some of the varieties appear to be throwing up their bloom too early for the exhibition, remove such to a shady northern aspect; this will give a better head of bloom at any given time. Clean the glass if it has become dirty from covering up during winter.

Carnations and Picotees. The soil having been prepared, frosted, well-turned, and kept dry as directed, and the pots having been washed, potting for bloom may be proceeded with, commencing with strong-growing varieties, such as will stand a little bad weather, which we must yet expect to experience. Two, three, and sometimes four plants are put into a 11-inch pot—we prefer three—and a pair of plants for 8-inch pots. In potting, press the soil firmly with the hand. Plants of upright growing kinds, such as Flora's Garland, Count Pauline, Mrs. Barnard, &c., require securing at the time of potting, with neat small deal sticks; or the chances are they will suffer before the time arrives for permanently staking them. As long as the plants remain in small pots, in pits or frames, look closely to watering them: the pots being full of roots, they soon dry, and will suffer considerably from the March winds if this is not attended to. Those that have a large stock, which takes a considerable time to pot, or plant out for blooming, would do well to remove their plants to a northern aspect, reversing the frames, and plunging the pots, however temporarily, in ashes. By remaining in a warm, southerly aspect at this season, the plants are prematurely started into growth, and their bloom much weakened.

Cinerarias. Late-struck plants should now be put into their

blooming pots; these will succeed those now coming into bloom. Green-fly will give some trouble this month; fumigate on their first appearance, or the mischief will be done. *Seedlings* will now be fast coming into bloom; all will help to make the greenhouse gay; but in selecting those to be saved for another season, compare them with the best already out.

Cold Frames. Look over the stock of bedding-plants, selecting such varieties as will require to be increased; remove them to a warmer temperature, where they will soon push young shoots, which will strike freely. Plants not required for increased propagation should be hardened off without delay. Keep them well stopped back, to form bushy plants by the time they are required for planting out. See to the coverings nightly, as the weather at this season being uncertain, one night's neglect may possibly cause much unnecessary trouble. Fumigate occasionally, and look well after mildew. Annuals required for bedding purposes should now be sown. Peas should be sown in pots for turning out in May.

Conservatory and Show-house. These houses will now, in addition to the ordinary stock of plants, be at the height of their beauty, by the addition of forced Rhododendrons, Azaleas, Roses, and other hardy shrubs, Dutch bulbs, &c. Allow nothing to detract from the interest attaching to select showing plants in the shape of faded or withered blooms, or negligence of any kind; a moderate temperature, say 48° or 50° by night, increasing 8° or 10° by day. Let the necessary watering be done early in the morning, that the house may become dry and enjoyable by the forenoon. Many of the best white Camellias will get soiled if exposed to damp. Plants growing in the open border water when dry.

Dahlias. During this month propagating the Dahlia will be at its height, being the best time for the general stock. New or scarce kinds may be continued to be increased for a considerable time later. The reason we prefer plants from cuttings taken in this month is, that being in good time, they do not require forcing to make them forward enough, and are not too early to become stunted. Towards the end of the month start pot-roots in gentle heat, moistening them once a day. As soon as the shoots have pushed from $\frac{1}{2}$ to 1-inch, pot them into 4-inch pots, using rich soil; draining the pots with a little coarse leaf-mould, instead of broken pots. The bulb should be covered with soil, and care should be taken not to fill the pots with earth within an inch or more, as the bulb increases in size so rapidly that it is difficult to water them unless this has been attended to; the water runs away instead of into the soil. Those that can afford room for potting off their seedlings into single pots when up, may sow their seed this month; if not, it had better be deferred till April. A strong moist heat is best for getting it up.

Flower-garden. Digging and dressing flower-beds and borders for summer flowers should be at once proceeded with. Prepare compost required for bedding plants; replant and divide all kinds of herbaceous plants as early in the month as possible. Tigridias, Gladiolus, &c., should be planted towards the end of the month.

Gravel-walks should be swept and rolled frequently in fine weather. Level down, and rake over ground which has been forked up during winter, to give as neat an appearance as possible to this department.

Forcing. Vines in bloom require a dry temperature, accompanied by a little extra heat when in bloom, to enable them to set well and form handsome bunches. 65° will be a good average temperature, but Muscats require 70° to do them justice; stop the shoots at one joint above the bunch, leaving a leader; if the Vines have been cut back shorter than the rafter, tie down the shoots neatly, and thin the berries as soon as possible after they can be seen, which are likely to swell. Keep the air of the houses humid, by syringing the walls and damping the heating apparatus, when the Grapes are swelling and the Vines breaking. When the weather is mild, give air freely, using more caution when cold or frosty, so as to avoid exposing the foliage to chilling currents of air. In the early Peach-house, disbud when the fruit is set, taking off a few of the extra buds at a time to prevent giving the trees a check, leave the shoots intended to form the wood for next year's crop regularly over the tree. After the fruit is set, the syringe should be again put in use on fine mornings, to keep the foliage clean and healthy; and the air of the house may be kept moister than when the trees were in bloom. Water the inside borders of vineries and other forcing-houses. *Strawberries* in bloom must be kept fully exposed to light; those swelling may be removed to more heat, to finish them over; supply with liquid manure, and keep down green-fly by tobacco. *Melons* should now be ridged out on a nice sweet bottom-heat. Let the loam be free from dung, and moderately strong. Keep a top heat of 70° or thereabouts. When the plants have started, pinch out the ends of the shoots, when they will produce laterals, the strongest of which should be selected to fill the frame. Do not permit them to produce fruit till they have a good stock of leaves. Sow for succession. *Cucumbers* as *Melons*, only they require a lighter soil. A moist heat is necessary for both in their early stages. *Cucumbers* in bearing assist by manure-water and top-dressings, and maintain a steady bottom-heat of 85° . *Pines* showing fruit, keep dry. Like most other things, a dry atmosphere causes their bloom to open more freely, and results in regular shaped fruit; water when dry at root, and keep the bottom and top heat steady; 80° to 95° for the former, and 60° to 80° for the latter, with air at all opportunities. The young plants will now require shifting into larger pots; use for growing them, half-rotten turfy loam, to which may be added a little soot or well-decomposed manure. If the loam is tolerably rich, this will not be necessary; plunge in a brisk bottom-heat, and keep rather close till they begin to grow; afterwards, air and light in abundance. Keep sowing French Beans, of which Wilmot's Forcing is one of the best for successional crops. A pit planted with the above now will produce a valuable crop in April and May. Continue making Mushroom-beds according to the supply expected. Air freely, to give colour and flavour to Asparagus forcing in frames.

Fuchsias. The first struck young plants should now be pushed

along, repotting them into 5 or 6-inch pots, using light, rich soil. Fuchsias, as grown generally, are too thin of shoots, and too tall; close-growing and short-jointed varieties do well as pyramids, grown with a single stem. Coarser growing kinds should be stopped once, tying the laterals when long enough to form a compact bush; grown in this manner, they will be found much more effective.

Greenhouse. If a mixed collection of plants are grown, remove the soft-wooded kinds to one end of the house, as they will require to be kept a little warmer than hard-wooded sorts. Where separate houses can be afforded each, their management will be more easy. The cultivator must bear in mind that the successful growth of plants depends very much on a good start, and as the generality of greenhouse plants will now be commencing to grow, an abundance of both light and air is necessary in the highest degree to ensure a slow, steady, and progressive action. Not only must plants be kept as near the glass as circumstances permit, but the glass itself—(see our last Number) must be kept clean, and every thing connected with the inside of the house in the same state. We said above a slight difference should be made in the management of hard and soft-wooded plants, but with both nothing like hurrying should be attempted; a short-jointed sturdy habit can only be obtained by the means above pointed out combined with *patience*. Many things will now require repotting, and supposing a supply of peat, loam, and well rotted *dried* cow or other manure, is at hand, may take place as opportunity offers; speaking in general terms, fibrous peat and silver-sand are the principal ingredients for hard-wooded plants, using more or less of loam, &c. for freer growing kinds. As some plants require pruning back at this season, allow them to form a new growth before shifting them. Let every attention be paid in potting for thorough drainage, as much of after-success depends on this. Camellias are now in their greatest beauty, and will require rather more water than usual; manure water occasionally, as plants of the above and Chinese Azaleas go out of bloom, place them in a cool house to recruit their energies, and to enable them to break strong. Mignonette, sow for succession. Tuberoses should now be potted in light rich soil, in 32's pots, and when the plants are up a few inches, repot them. Sow Balsam, Cockscombs, and other tender annuals for summer display.

Hardy Fruit. The pruning and nailing of fruit-trees should now be brought to a close without delay. In our last Number we recommended materials to be applied by way of keeping the trees from blooming till as late a period as possible; this must, however, be removed when the flowers open, as full exposure will then be necessary each day, re-covering them by night. The above supposes canvas or netting of some kind is used; but as the spray of ever-green trees is sometimes employed as a substitute, a portion must be removed so as to admit light and air to the blooms, adding more by night, should the severity of the weather demand it. Break down the ground rough dug among fruit-bushes with the garden-fork, and give as tidy an appearance to the ground as possible.

Hollyhocks. Harden the plants well this month preparatory to

planting them out in April. Plants struck during winter, or this spring, should have a good shift, and planted out about a fortnight after the first batch. Seedlings may be put out the end of the month, but should be secured from slugs or snails.

Kitchen-Garden. With the advance of spring, the number of things requiring to be done in this department daily increase. If our previous directions for trenching and working the land have been attended to, it will now be in good order for sowing Parsnips, Onions, and a few Carrots; the principal crops of the two former should be got in without delay. Carrots in dry soils are apt to become maggotty in hot weather if sown too soon. Dwarf, Mammoth, and Champion Peas may now be sown, to be succeeded by the taller Marrowfats towards the end of the month; the Long Pod and Green Windsor Beans should likewise be planted to succeed the "Tan" and Mazagans. Plant out, as time permits, the early and principal crops of Potatoes. Avoid the use of fresh, rank manures; but where manure is necessary, let it be well decomposed, and add dry ashes, guano, or soot as auxiliaries; lime on some soils produces Potatoes of excellent quality. Judging by past experience, it will be useless attempting their growth on wet, clayey soils or confined situations; but on soils of moderate depth and dryness, with an open exposure, we have no doubt a moderate crop may be relied on. Towards the middle of the month, transplant from the frames Cauliflowers, Lettuces, &c., to warm borders; give the autumn-planted crops a good hoeing, or, if the soil is very firm, slightly dig it over with a fork. Fresh plantations of Rhubarb, Horse-radish, Sea-kale, and Artichoke may now be planted; as the above are to remain in the same place for some years, let the ground be deeply trenched and well enriched with manure. Spring-sown vegetables in frames should have the sashes taken off on mild days, to gradually harden them for pricking out. Autumn-planted Cabbage encourage by well soaking them, in mild weather, with liquid manure, and keeping the soil about them well loosened. To have Leeks in perfection, sow them on a slight bottom-heat, and treat them like Celery.

Orchids. As the principal part of these will now be growing, and as light and solar heat are daily increasing, the temperature may safely be raised a few degrees on bright days. To many kinds shading will soon be necessary, and such should be got in readiness for using directly the plants show indications of suffering from excess of light. Attend to previous directions respecting potting or redressing, which should always precede the new growth. Many kinds, however, will from time to time require examining and fresh material added. Do not permit water to lodge about the newly-formed roots, or rot they assuredly will. Increase the humidity of the house as the days lengthen. Plants blooming remove to a drier house, to preserve them from spotting. Night temperature 60° , rising 10° or 15° by day.

Pansies. Those in pots should be allowed to have gentle, mild showers; the frames should be kept open as much as possible, peg out the shoots as the plants progress: small side-shoots may be put in as cuttings. Any stock left in pots should be turned out into

beds. If a few plants are planted in a shaded border it prolongs the bloom, by keeping them in colour during the month of June. Seedlings wintered in pans should be planted out. Sow autumn-saved seed.

Pelargoniums. March is an important month with this plant. Fumigating must be particularly attended to; as the plants begin to grow, aphides will make their appearance, which *must* be kept under. Watering too, at this season, requires more than ordinary care and judgment. As but little water is given during the dull winter months, the balls of earth become dry and hard towards the bottom of the soil, and as the general stock is started into growth at this season, care should be taken that, when watering, it penetrates through the ball of earth. Training the plants into handsome shapes, as they progress, should be attended to, tying out the side shoots, and arranging them generally according to the instructions given on several previous occasions in the *Florist*. If the foliage has become at all dusty, use the syringe freely until it is free of it. Use weak liquid manure when the pots have become full of roots; give plenty of room, light, and air. Fancy varieties require much the same treatment as the other kinds; the warmest end of the house should be allotted to them.

Pinks. Top-dress the beds with a mixture of half-rotten manure, and half good rich soil, choosing a day when the beds are tolerably dry on the surface. If any plants have been loosened by frost, press them firmly into the soil before they are top-dressed.

Roses may yet be planted even up to the end of the month; and although we have done this successfully as late as the first week in May, should the weather continue open, we cannot recommend its being delayed a day longer than is necessary. Some have recommended pruning being performed on "hybrid perpetual and summer varieties" last month, but we would advise that only the wood which is to be entirely removed be cut out at present; leave shortening the shoots (always to an outer bud) till all chance of severe frost is quite over. The directions given last month respecting Pot-Roses apply equally well to this.

Stove. Allow the heat to increase gradually; admit air freely in favourable weather. Plants which have bloomed should be allowed to get dry, and be removed to a cooler house. Plants which begin to show signs of growth should be repotted (if required). Attend to previous directions respecting insects.

Tulips. Generally these will now be above ground, and will require the care of the Florist in protecting them during frosts, cutting winds, or hail, on all other occasions keep them open. Mats, stout canvas, or what is better than either, Frigi Domo makes a good covering during winter, or at night during the spring months.



Dahlia

THE DAHLIA.

[Plate 86.]

BEAUTY OF SLOUGH, the subject of our present illustration, was raised by Mr. Bragg, of the Star Nursery, in 1852, and was rather extensively exhibited during the last autumn. It is a showy, striking variety, as will be seen from the plate; and is of excellent habit, and grows to the height of four feet. It is not strictly speaking a constant flower, but has many good qualities; such as stout smooth petals and good form, and will be very effective either on the plant or in a stand of blooms. It should not be grown too luxuriantly; stiff soil, with but little manure, will be best suited to its habit. Forcing it too much would probably make it come rather loose and open in the centre. Mr. Andrews has produced a life-like and highly finished drawing of a good bloom of it, which we present to our readers.

GLASS WALLS, &c.

As you are now treating on the different kinds of architecture which have been introduced to our gardens since the removal of the duty from glass, perhaps I may be permitted to make a few remarks on those descriptions of building which are more especially adapted for the protection and growing of fruits.

These structures consist of three kinds, viz. the covering of brick or stone walls with glass, orchard houses, and glass-walls, each of which has its respective merits, and I may add its disadvantages. The covering of existing walls with glass is by no means new; but it has been brought more prominently forward, and improved upon, within these last few years; and when properly planned and executed, it not only will secure a crop of fruit, but looks neat of itself; and may in the latter respect be regarded in appearance as somewhat approaching to the glass-wall: notwithstanding its advantages, I find both gardeners and amateurs who seriously discuss, and tenaciously adhere to the antiquated plan of fruit-tree protection by means of canvas-rolls and fir-branches.

As regards orchard-houses, I believe we are indebted to Mr. Rivers for first bringing them into notice as useful expedients for the culture of fruits, more particularly in pots and tubs; and I cannot doubt that they are useful erections in their way. On the other

hand, where neatness is an object, they may be most fittingly placed in the garden suburbs, and be equally serviceable, as I do not think they are, as at present constructed, very well adapted for the interior of a garden, unless carried out to a large extent. The principle of an orchard-house is a good one when adopted on a large scale; and my idea of such a building would be embodied in covering a large area of the garden with glass, and allowing fruit-trees to be planted to grow both as standards and espaliers. Such a building would be suitable for a hundred purposes, such as growing winter salads, early vegetables, &c. At the same time, I admit I am not sanguine as to the adoption of such erections being undertaken by private individuals, although I have an idea that such may answer sufficiently well for commercial purposes and enterprise.

I now come to glass-walls, but owing to the time since their introduction being so limited, their advantages or disadvantages have not yet been fully tested. In 1852, the first thing of the kind was erected here late in the spring of that year, but not too late to have the trees planted, all of which did well the succeeding summer; and last year we had some very fine fruit. The crop of Figs was a most excellent one, and the Peaches (what were of them) were remarkably fine and highly-coloured, with the most delicious flavour. I find that the leaves of fruit-trees in the wall here grow unusually large and robust; which may in some degree be attributed to their being protected from cold, dry biting winds, and having a full exposure to light. One objection brought against glass-walls is, that they are cold during winter; instead of this being a defect, it is a great advantage, as it puts it in the power of the gardener to keep the fruit-buds from pushing too early in spring, and this attended with little or no trouble, as the lights are merely required to be left open during night and day. This last season I have had the trees continually exposed, with the exception of the time the frost was so severe; and at the present time nothing can hardly exceed the promise of the Peach-trees for a large crop of fruit. Indeed, in the whole course of my experience, I have never seen any thing equal to them; and whatever the result of the crop may be, I will make it known in the autumn.

When these walls are made of sufficient width for a person to walk up the centre of them, they form delightful promenades, besides being structures of considerable beauty and elegance, and any order or style of architecture can be applied, such as that most suitable to the mansion or neighbourhood; and where hot-water pipes are introduced, they become excellently adapted for early fruits and flowers.

I am of opinion, if such are made use of throughout in a large garden, to the exclusion of brick and stone walls, there would be a beauty and utility in their adoption that has not yet been attained in English gardens.

Bodorgan Hall, Anglesea.

CHARLES EWING.

TRENTHAM HALL, STAFFORDSHIRE.

THE attention of the horticultural world having of late years been so much directed to this place, owing to the improvements in almost every department of gardening which have been effected in it by Mr. Fleming, we feel sure that a short notice of what we saw, during a hasty visit the other day, will be acceptable to those of our readers who may know Trentham only through seeing the results of Mr. Fleming's management in the beautiful fruit which is constantly being exhibited at the great London shows, and which has obtained for Trentham a celebrity of which few other private gardens can boast.

Trentham has but few natural advantages to recommend it, being situated in a low valley close to the river Trent,—a position unfavourable, both as regards the dampness of the soil and humidity of atmosphere inseparable from all low-lying localities. The natural soil of the district, which belongs to the new red sandstone formation, appears to be a deep red loam; but the lower level of the valley (on which the gardens are situated) contains a considerable mixture of drift, transported from higher lands, and deposited there before the Trent had subsided to its present level.

In addition to drawbacks in the shape of situation and climate, our readers must consider that only a very few miles to the north is the great pottery district, with its hundreds of furnaces, &c.; which, when the wind comes from that point, load the atmosphere with particles of sooty matter and other impurities, rendering it, as gardeners well know, inimical to the culture of all delicate plants.

Notwithstanding these disadvantages, however, Trentham exhibits, to a greater degree perhaps than any place we remember to have seen, what *art* can effect when skilfully carried out. Not only has the mansion been entirely remodelled within these few years from designs by Sir Charles Barry, but additions have been made which give the house a character of grandeur and magnificence, suitable to the position of the noble family who own it; and on looking from the south front over nearly ten acres below, laid out in the Italian style, with terraces, parterres, &c., and terminating with a lake, we feel conscious how completely art has triumphed over mere situation, and stamped it with a character of its own creation.

Of course, February is not a very suitable time of the year for visiting a flower-garden, which long before this shall have been in the hands of our readers will be gay with spring bulbs, plants, and flowering shrubs; but it favoured an accurate examination of the outline and design, which can be much better studied when the beds are empty than when they are ornamented with flowers. Thus the lines of Portugal Laurels (planted in square boxes so as to represent Orange-trees) which decorated the sides of the principal walks, showed how well they answer the purpose of an avenue plant for the geometric style of gardening, and for apparently increasing the length of straight walks. To our minds, few finer

things in this way are to be seen (in this country at least) than the view down the centre walk of the flower-garden at Trentham, bordered as it is with the Portugal Laurels just noticed, and terminating at the water's edge with a noble group of sculpture; the lake beyond, and the wooded hill to the right of it reaching to its margin, affording a suitable contrast to the scene more immediately beneath the eye of the spectator. The river Trent, which until last season ran through the lake, and annually deposited a large amount of mud in its passage, has been diverted a considerable distance to the left, by cutting another channel for it, so as to avoid the lake altogether; the water of which is now supplied solely from springs, and consequently its purity will not be interfered with, as it was formerly, every time the Trent became flooded. The neck of land now separating the river from the lake has been cleverly managed by Mr. Fleming. At a point higher up the grounds, from which the whole is overlooked, the river and lake appear as parts of the same piece of water. The point of divergence being skilfully planted up, the river appears as if winding round a kind of peninsula, and apparently meeting the lake beyond it. When the planting on this part shall have obtained a few years' growth, it will form a very interesting portion of the grounds.

Let us now, however, pass on to the kitchen-garden, visiting in our way the conservatory, or winter-garden, which forms a connecting link between the ornamental grounds and the culinary department; this glass erection forms a large square, with a ridge-and-furrow roof, and is chiefly devoted to the growth of the more arborescent kinds of conservatory plants, which are principally planted in open borders: Acacias, Camellias, Orange-trees, Polygalas, &c. were growing in great luxuriance, as well as other sorts of conservatory plants; a temperature is maintained through the winter only sufficient to exclude frost, and therefore the plants do not bloom early; but this renders the display they make much more effective at a time when the family is generally at home to enjoy it. Every thing gave promise of an abundance of bloom.

In the kitchen-garden several ranges of pits are devoted to Pines, which were all growing strongly, and were short-leaved, stocky plants; just the sort to produce large handsome fruit, which some of them were showing; the whole were planted out on the open-bed system, in twelve or fifteen inches of soil, over hot-water pipes, which supply bottom-heat: nothing could be simpler or more successful. Vineries are numerous, the demand for Grapes being great. In one house were hanging fine bunches of Barbarossa, still fresh and plump. In the early vinery the Grapes were then (February 18th) colouring; a fine crop, and the berries well swelled. It may be remarked, that as a regular succession of Grapes is required throughout the year, the houses are brought forward in rotation to meet the demand. The vines all looked vigorous, and gave promise of plentiful crops. One house was filled with the "Mill Hill," a black Grape of the Hamburgh class, but with larger berries.

Peaches are ripe at Trentham in May. The trees in the first

house had set their fruit, a full crop ; the next house was nearly out of bloom, and promised to be equally fine.

Strawberries, Melons, and Cucumbers were all in a forward state ; the two latter are grown in low pits, with a path in the interior for facilitating their management ; they are heated with hot water, which also supplies the bottom-heat. These pits, which are numerous, both for the purposes just mentioned and for the propagation and wintering of the thousands of bedding plants, which are yearly wanted to furnish the beds of the extensive parterres, are constructed on the strictest principles of economy, combined with usefulness ; and they serve the purposes for which they are intended admirably.

A range of plant-houses of considerable extent occupy a site to the rear of the kitchen-garden, from which they are separated by a belt of low evergreens and American plants. A stove, Geranium houses, Heathery, &c., are here, the inmates of which looked in good order, some of the specimens being very fine. Nearly adjoining the above, in the direction of the kitchen-garden, is a long house devoted to plants in bloom ; in this were many excellent specimens of popular greenhouse plants, including the newer kinds of Chinese Azaleas, which had been gently forced into bloom ; and with Acacias, Daphnes, Epiphyllums, forced Roses, and other plants (including *Magnolia conspicua*, which forms a beautiful object forced), Bulbs, Primulas, &c., gave the house a very gay appearance, reminding us much more of May than February. The Camellia house is on a north aspect ; and the plants, then coming into blossom, looked in the best of health. In addition to regular plant-houses, many fine things are scattered through the various vineries, &c. ; Chinese Azaleas are grown extensively, both for the show-house and the conservatory, and for decorating the rooms of the mansion, for which few things are better adapted.

The plants are trained in a conical shape (like that represented by our woodcut), which we consider a very good way of showing them off to the best advantage. Treated in this manner, they look more



dressy than when allowed to grow into a bush, and they are not so stiff and formal as plants trained to a flat surface.

We purposely avoid mentioning the immense length of walls in the kitchen-garden, which Mr. Fleming has faced with glass, in the hope that he will himself furnish our readers with some account of his own invention; it must suffice to say they excited our admiration, and appeared to fully substantiate the remarks lately made in the *Florist* on their great value to the British gardener, as they place him in a position to combat successfully the disadvantages of climate under which he labours in producing the finer varieties of fruits.

Trentham Gardens are, in fact, a great school of horticulture, where every thing relating to the art is put to the test of practical experience; the results of which show how carefully every detail of management is carried out by Mr. Fleming.

WELLINGTONIA GIGANTEA.

(LINDLEY.)

THIS newly-introduced tree having been advertised for sale in the *Florist* by the Messrs. Veitch of Exeter and the Exotic Nurseries, Chelsea, we beg to append a few particulars respecting it, for the information of our readers.

From time to time reports of a tree of vast dimensions had reached this country, communicated by the few travellers who had penetrated to the forests in the interior of California; and when *Taxodium sempervirens* was first introduced, it was taken for the marvellous tree in question; and impressed with this idea, Endlicher changed the name to "*Sequoia*," with the specific distinction "*gigantea*," to designate its immense size. This has been extensively planted as an ornamental tree; and though really a Conifer of great size, it is far eclipsed by this king of the Californian forests. Mr. Wm. Lobb, the Messrs. Veitch's collector, and the fortunate discoverer of Wellingtonia, examined a number of living trees, which ranged from 250 feet to 320 feet in height, with trunks from 10 to 20 feet in diameter: one, he states, recently felled, measured 300 feet in height, with a diameter of trunk, at five feet from the ground, of 29 feet 2 inches! This is a height fully double that of the loftiest of European trees—the Spruce and Silver Firs; and we can form but a feeble idea of the immense size of the trunk, by comparing it with the largest of our Oaks or Elms. Only imagine a tree carrying a trunk 14 feet diameter at 100 feet from the ground, and comparison sinks into insignificance.

The tree has small pointed leaves, similar to those of some Junipers, and is evergreen. Mr. Lobb found it only in one district on the Sierra Nevada, near the head waters of the Stanislaw and San An-

tonia rivers, at an elevation of 5000 feet above the level of the sea; it will therefore without doubt prove hardy.

Dr. Lindley has most appropriately named this tree "Wellingtonia," after the greatest of modern men; and in associating his name with the monarch of the vegetable kingdom, naturalists will feel a just pride in knowing that the memory of the great man is now represented by the most suitable memorial that could possibly have been paid to his greatness.

HORTICULTURAL SOCIETY'S SCHEDULE.

A LEADING article in the *Gardener's Chronicle*, of the 11th of March, professing to refute the observations made on this schedule in the *Florist* of last month has greatly surprised me. The words especially objected to are, "that in the present schedule there are *great changes and considerable reductions*." Let us see whether this is so or not. First as to Fruit: hitherto it has been the custom to offer definite prizes for each kind and variety specified, with fixed classes for it to be shown in; but in the present schedule no classification is proposed: the exhibitors are to show *how* and *what* they please, and the judges are to apportion a certain sum (or as much of it as may be deemed requisite) amongst the exhibitors, "as they may think fit." Now if this is not a "great change," what is a great change? Then as to prizes offered (I beg to repeat the word 'offered'): in 1853 the amount was 92*l.* 5*s.* each show, besides the classes left to the discretion of the society's officers; this year the average amount is 60*l.* (the sums being 50*l.*, 60*l.*, and 70*l.*) Surely this is a considerable reduction. The Editor of the *Chronicle* says the amount is something more than was ever *awarded* (observe the word 'awarded') before. That is not the question; what is now and what has been *offered* (not awarded) is the subject of dispute. The case of A, as put by the Editor in illustration of the presumed advantages of the plan of showing now proposed, is, to say the least of it, ingenious; that A should get a prize because he can show three kinds of fruit together, each of which might be beaten separately, amounts to this: that inferior productions are to be rewarded, provided there be but enough of them heaped together to make up an exhibition. How fruit-growers may like this *they* will probably take means to make known. In short, the new plan of showing is so vague, that it need be a matter of no surprise if it should very materially curtail the exhibition of fruit, never very strong even under the best of circumstances. The next statement objected to is "want of liberality;" and the Editor, in exculpating the Society from this charge, points to the amount now offered for Orchids, which he states to be 261*l.*, instead of 157*l.* 16*s.* as in 1853. The amount offered in last year's schedule for Orchids was 178*l.* 10*s.* (not 157*l.* 16*s.*); but the writer forgets (I will not say wilfully) that subsequently an additional offer was made, amounting to 106*l.*,

making a total of 234*l.* 10*s.* Again, for Azaleas, the amount offered last year was 90*l.*; this year it is 87*l.*, instead of 60*l.* and 43*l.* 10*s.* as stated in the *Gardeners' Chronicle*; and the total amount of prizes offered for both fruit and flowers for 1854 is 190*l.* 10*s.* less than in 1853. Is this liberal? Is it not a "considerable reduction?" The directors of the Horticultural Society appear singularly unfortunate in the preparation of its schedule; like a ship at sea without compass or pilot, they run first into one danger and then into another. The schedule for 1851 was so badly constructed that it led to the all-but total absence of Pelargoniums. That for 1853 would have led to a similar result as regards Orchids, had not the error been corrected in a supplementary schedule, offering to give the "class on strike" what it wanted; and really it had a right to strike, for what can be thought of such prizes as 10*s.*, 20*s.*, 25*s.*, 35*s.*, 50*s.* offered for the "large collection" of Twenty Exotic Orchids?—why the weakest provincial Society in the kingdom could not have offered less. And now in the schedule for 1854 there is abundant cause for disappointment. Has the Society in view, through the medium of its shows, "the promotion of horticulture in all its branches," as it professes to have? Judging by the schedule just issued, it would rather appear to have had an eye solely to make the shows a source of revenue—to get as much by them as possible. It may, however, be fairly doubted whether the author's of such a schedule have taken the best mode of effecting the end they seem to have aimed at. Is it the way to make shows attractive, to curtail (as has been done) the classes for competition at the rate of 21 out of 45? All kinds of flowers have their respective admirers; and it is but right to conclude that the company will bear some proportion to the *variety* exhibited: it is not a case of monopoly; lovers of flowers, as well as exhibitors of them, are not confined to Chiswick; the former have at Regent's Park an opportunity of seeing a very much more extensive exhibition of them with far greater convenience; and it is a fact that both exhibitors and company now begin to show a very decided appreciation of that convenience, which is in a great measure attributable to the indiscretion and want of liberality on the part of the society at Chiswick. It is well-known that the officials there have long entertained a kind of mania against Florists' flowers (for what reason it is difficult to say); and it would appear that they have now obtained the gratification of their dislike in expunging them *in toto* from the present schedule: it may be the result will be less gratifying than they have anticipated. To have an object worthy of its name, the Horticultural Society should embrace as wide a sphere as possible, and make the shows the means of testing and noticing every thing new, whether it be humble as a Primrose, or one of the rarest of Flora's gems. It may be asked, What should be done? What should be done! try a liberal schedule, both in extent of objects and in amount of prizes; a niggardly spirit is sure to fail; get the widest possible support by encouraging every class of flower that can be shown; the humblest individuals have influence, and the object should be to merit the exercise of that influence in favour of the Society, instead of fostering the repellent system so frequently pursued; let

the exhibitors who furnish the shows have a fair share of the proceeds: as it is, the prizes have often failed to cover the cost of carriage; and alter the days of exhibition from Saturday to some other day, so that it may be possible for persons to get their plants home again before the *Sabbath*: the exhibitors themselves have formally asked for this change. The schedule for 1853 contained 41 classes, and 4 for amateurs for competition; 45 in all: the present one contains 25 classes and 1 for amateurs; 26 in all, including 2 new ones, being a diminution of 21 classes; the intending exhibitors in which have especial cause for complaint: they have been cultivating their specimens for six months, and now at the eleventh hour they find their time and labour, and consequently money, thrown away; in common *justice* they ought to have had earlier notice.

SCRUTATOR.

DESCRIPTIVE LIST OF HARDY CONIFERS. No. IV.

VIII. ABIES NOBILIS—THE NOBLE SILVER FIR.

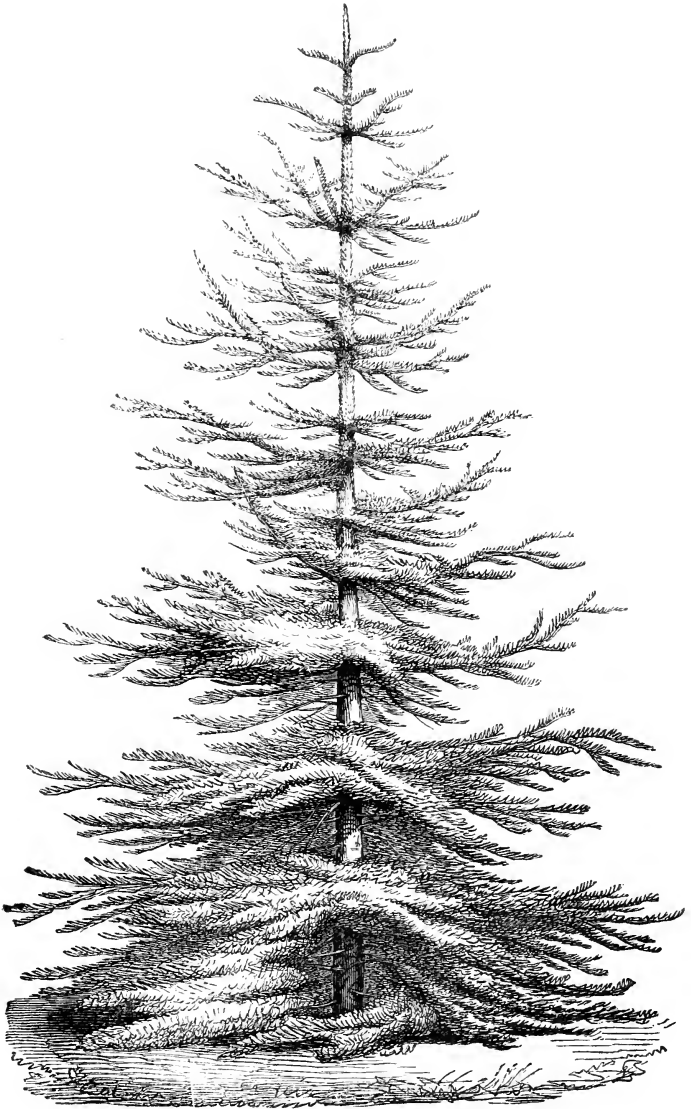
ACCORDING to Endlicher's synopsis of Coniferous plants, whose arrangement is followed in the Horticultural Society's Journal, the genus *Picea*, which formerly comprised the Silver-Fir section, is now associated, under *Abies*, with the Larches and Cedars, forming the first division of *Abietinæ*, or Fir tribe.

The general character of the Silver-Fir tribe is that of tall-growing trees, of great symmetry and regularity, both as regards mode of growth and the disposition of their branches, which are produced in whorls, forming trees with heads, of a very regular pyramidal shape. As compared with the Spruce-Fir section, they are on the whole more ornamental, the foliage generally being of a deeper green colour, relieved by silvery-white lines on the under side; and as the leaves in all the Silver-Fir section are partially turned upwards, the white lines contrast with the upper surface of the leaf, producing a silvery appearance, from whence the tree has derived its popular name.

The common Silver Fir is indigenous to the mountains of central and southern Europe; and is so well known, that we need not further mention it, except to point it out as the principal representative of the European species. For it is in that fertile region of *Coniferæ*, the north-west of America, that the most remarkable species are found; among which, the one presented to our readers in the annexed engraving is unquestionably the most beautiful; and from the time when Douglas, in 1831, recorded his admiration of this tree, on first discovering it, to the present, it has been a great object with admirers of Coniferous plants to possess this stately and noble tree.

We are indebted to Sir Joseph Paxton for permitting us to take a sketch, for our present woodcut, from the fine tree at Chats-

worth, which was planted in 1833, at which period it was not more than ten or twelve inches high. At the present time it measures 38 feet in height, with a bole measuring 2 feet 10 inches in circum-



ABIES NOBILIS—Height, 38 ft. ; diameter (of branches), 20 ft.

ference at 3 feet from the ground; and the branches cover a space of 20 feet in diameter. This would have been exceeded, but other plants have somewhat prevented its extending itself more fully.

We believe no particular preparation was made for it when planted. The soil, a loam of moderate texture, rests on the limestone rocks which form the under stratum of Chatsworth; and the above data may therefore fairly represent its growth in the North of England: no doubt, in warmer localities, and on deeper soils, it would grow faster.

Abies nobilis forms large forests in the mountainous district of North California, growing to a large size, and producing timber of good quality. The shoots are produced in whorls very regularly, and are densely clothed with leaves of a light-green colour, an inch or so long, having two white lines on their under surface. The leaves curve upwards, even from the lower side of the shoot, giving a clustered appearance to the foliage; and by exposing the white lines most effectively to the light, produces that silvery appearance, which even at a distance makes it a beautiful object. The cones are large, and are remarkable for being covered with large bracts of a brownish colour. These will add much to its ornamental appearance as the tree becomes old enough to produce them.

A. nobilis is perfectly hardy. Like other Silver Firs, it prefers a stronger soil than the Spruce, and will even grow on stiff clays, especially if elevated, so as to keep off stagnant water. As an ornamental tree for the park or pleasure-grounds it has few equals; but it should be planted at a sufficient distance apart, for its lower branches to extend without interruption. Plants are yet scarce in the nurseries; but when once it becomes common, no pleasure-ground should be without it.

IX. *ABIES GRANDIS*—THE GREAT CALIFORNIAN SILVER FIR.

This is a noble-looking tree from the same district as *Nobilis*, where it is found occupying the low grounds which intervene between the mountain ranges of North California. The tree frequently attains the height of 200 feet; but the timber is reputed inferior to that of many other kinds of Firs.

A. grandis is a fast-growing tree, with numerous spreading branches very thickly clothed with leaves; these are of a deader green than those of *Nobilis*; and as they grow closer to the branches, the silvery appearance is not so perceptible, and the trees assume a soberer hue when contrasted with that variety. The leaves in our specimens are shorter and broader than those of *Nobilis*, nearly straight, terminating abruptly, and toothed at the apex. The cones are said to resemble those of the Cedar of Lebanon.

The majestic form and dense foliage of this tree render it one of the most striking and valuable kinds for ornamental planting. Like *Nobilis*, it is still a scarce plant, especially seedlings; but we have no doubt fresh supplies of seed will soon reach English gardens, when the tree will become more generally known.

X. ABIES AMABILIS—THE LOVELY SILVER FIR.

This is said to be allied to Grandis; it was discovered by Douglas, in California, in 1831, and so named by him. The tree grows to a large size, reaching a height of 150 to 200 feet; of the quality of the timber but little is known. The leaves in our specimens are smaller than those of Grandis, more pointed at the apex, and entire, and are arranged in a more spreading manner on the shoots. We have not seen any cones of this species; but they are recorded as being longer than those of Grandis. With us, this tree presents characters sufficiently distinct from Grandis; it is a looser growing tree, and its smaller leaves and neater habit render it a pleasing variety; and we have no doubt, as it grows up, its distinctive characters will more clearly establish themselves; like those described above, this is a plant hard to be met with. S.

PROPOSAL FOR A POMOLOGICAL SOCIETY.

For several years it has appeared to me that we have not paid enough attention to the cultivation of fruits; we have Floricultural Societies, in which the qualities of a Hollyhock, Fuchsia, Pansy, or a Dahlia are discussed, certificates awarded, and reports printed. Yet the value and importance of fruit culture is, in my opinion, of much more consequence. How different is it with our cousins across the Atlantic! Nearly every State in North America has its Pomological Society and Pomological conventions; meetings are regularly held, the value of new and old varieties of fruits discussed, the most favourable sites for their culture pointed out, and much other matter pertaining to fruit and fruit-trees reported on. In Belgium, a Royal Commission has been appointed to inquire into fruits, and a new Pomological Society has been recently formed there. How cold we seem here in comparison with all this "go-a-headism!" Ever since the early days of the Horticultural Society, when Mr. Knight exercised such a beneficial influence, we seem to have been stationary, or perhaps retrograding. The meetings of the Horticultural Society are of interest, as far as they go; but the four guineas per annum subscription is too heavy for many lovers of fruit culture; and besides, these meetings are not social enough; more discussion is required, and special meetings held for particular kinds of fruit, at which many kindred spirits may meet, and discuss in a friendly way the merits or demerits of new and old varieties of fruits. Let us therefore endeavour to form a Pomological Society, with some influential and practical person at its head. A trifling subscription, say of 10s. per annum, would be sufficient to pay the hire of a room for an exhibition, say in July,* for Strawberries and Cherries; in September, for Peaches, Plums, and autumn Pears; and again, early in December, for winter Pears and Apples. No prizes need be given at first, but social friendly exhibition meetings held, to give and obtain informa-

* Fluctuating according to the earliness or lateness of the season.

tion: we must commence quietly, and grow vigorously. A dinner must, as a matter of course, take place, at which the dessert would furnish an ample theme, without public singers or music. All the details will soon follow the formation of a society; let us therefore commence at once, and all those who are favourably inclined write to "Mr. Spencer, The Gardens, Bowood, Calne," as follows, or to this effect, "I shall be happy to become a member of the proposed Pomological Society.—(Signed) A. B. &c."

Sawbridgworth, Herts.

THOMAS RIVERS.

NOVELTIES AND NEW THINGS.

NO. I.

A GLANCE through the various publications and catalogues periodically issuing from the press will show a considerable amount of plants, &c. that come under this denomination; and now that spring is fast breaking upon us, we feel induced to give a somewhat condensed list of a few of the novelties to be brought under notice in the forthcoming season.

New Shrubs and Trees claim a large number of admirers, and foremost amongst these must be mentioned the magnificent *Wellingtonia gigantea* (concerning which further information will be found in another page), which Messrs. Veitch will have ready for delivery towards the close of the year. Lithographed plates of this noble tree have been circulated; but we must confess that they convey to us little idea of its being a Conifer, so few of the ordinary characteristics of that tribe does this wonderful acquisition exhibit. Its enormous size and great beauty are undoubted. There is also *Abies bracteata*, described as the finest of Silver Firs, with leaves two inches long. *Podocarpus chilina*, a hardy Conifer; *Podocarpus nibugena*, also hardy; and the handsome *Skimmia japonica*, which Messrs. Standish and Noble state they have proved to be hardy; it is therefore a valuable introduction. There are likewise *Saxe-Gothæa gracilis*, *Berberis japonica*, said to be a handsome evergreen, with leaves from 15 to 18 inches in length, and hardy; *Berberis Beali*, with narrow pointed leaves, and evergreen, also hardy; and *Embothrium lanceolatum*, a large-growing evergreen flowering shrub, in habit something like a Portugal Laurel, with leaves a foot long, and spikes of scarlet blossoms about 15 inches in length. The hardiness of this plant is, however, at present questionable.

Amongst *Stove Plants* we find *Achimenes cherita*, a new species from Mexico, with bell-shaped light blue flowers; and *Achimenes Sir Trecherne Thomas* (why will not people choose intelligible names?), with a colour not yet ascertained. *Impatiens Jerdoniæ*, a handsome half-stove, half-greenhouse plant, of easy culture, to be sent out by Messrs. Veitch; and *Gloxinias Duke of Wellington, Lady Franklin, and Leonie van Houtte*.

In *Greenhouse Plants*, one of the most beautiful is the new *Azalea Beauté de l'Europe*, a very handsome striped variety; *Azalea amœna*, a singular kind, stated to flower in the way of the old hose-in-hose *Polyanthus*. *Azalea narcissiflora*, with double white flowers; *Azalea Beali*, a Carnation-striped sort, stated not only to be a good greenhouse plant, but also hardy; and *Azalea crispiflora*, both late and novel. There are also the beautiful *Philesia buxifolia* and *Ceratostema longiflora*, with bright orange-red tube-shaped flowers. We see advertised a new *Primula sinensis magnum bonum!* said to produce "splendid specimens of the most gorgeous-coloured flowers;" also a very pretty new hybrid *Cyclamen*, which blooms profusely; the name of which has not yet been announced.

Of *Roses* there is a great number of new varieties, many of which we hope to report upon during the season. We, however, must protest against the practice of giving to some of the varieties names which one person in ten cannot pronounce or write correctly. Take for instance "Prince Leon Kotchouby," or "Prince Chipétowsikof," names which, as has been observed, "should only be used on holidays, when one has nothing else to do." Our continental friends we trust will accept this hint in the same spirit in which it is given.

Passing on to *Florists' Flowers*. There is about the average number of new Dahlias announced to come out in May next, some few of which are very fine. *Ariel* is a light peach colour, and has some good properties. Shape very good as grown near London, and shown in a small state; but whether it will stand strong growth, to produce flowers of a full size, is more than we can venture to affirm. *Beauty of Slough* is a novel and attractive flower, with stout smooth petals and good outline, with the additional recommendation of possessing a good habit. It is, however, what *Dahlia*-growers term "soft" in the centre. *Colonel Baker* is a pale primrose compact flower, with a complete unbroken outline; not a large flower. *Duchess of Sutherland*, white, mottled with crimson, is considered by us to be a constant variety; and as it is very showy, it will make a good border-plant. It will not become a favourite as a show-flower, owing to the length of petal it has. *Fanny Keynes*, a tipped flower, will please the exhibitor, as well as those who grow for effect at home only. *Glory*, a deep-scarlet, is a flower of good shape. We had a scarlet *Dahlia* under this name about eighteen years ago. *Kate*, shaded blush, is a very reflexed flower, with high centre; and it is too often cross-eyed, and otherwise uncertain. *King of Yellows*, this flower is well named. *Emperor Napoleon*, another yellow; and although an Emperor, is much behind the King. There is also in this class *Mrs. Fergusson*, a large flower, occasionally to be caught good, but will generally be low in the centre; and *Indispensable*, a large and very promising flower. *John Keynes*, not well named, being a large flower, and it should be grown accordingly; it is better in shape than colour. *Lady Bathurst*, if as good as *Sir Frederick Bathurst*—and it is said to be so—will please all who grow it. *Ring-leader*, ruby colour and unquestionable form. *Rachel Rawlings*, delicate peach colour, will be found one of the best formed Dahlias of

1854. Dhwala Giri, described as brown-red (what a name and description!), is a constant second-class flower. Lady Mary Labouchere, a light flower in the way of Miss Vyse, but better formed; and like that variety when it was sent out, will give general satisfaction. Sarah, pink and white, resembling Marquis of Worcester; and is constant, if not a perfect flower. Miss Susan Sainsbury, is a chaste, pretty flower, rather small, but may be caught in a showable condition. Mrs. C. Mason much resembles the Marchioness of Cornwallis, and has the same fault. Golden Eagle, a bright orange, has many admirers, who we think will not be disappointed. Magnet has not attracted us, although it has some patrons. Rosea Elegans is a flower of medium size, and of great substance. Talisman, a shaded flower, and new in style, possessing great depth of petal, and will become a general favourite. Primrose Perfection, a reflexed but constant flower; and if second even to Colonel Baker, will be a useful variety. Pericles, a curious mottled variety, smooth and dissimilar, but not deep enough. Edwin Harrison, bright rich crimson, a very constant flower, if not an improved form, and will be useful; and Mrs. Rawlings, a very pretty blush variety, of excellent form.

There is not much to report in *New Fancy Dahlias*, as there is not more than a dozen varieties offered; yet some of these are first-class flowers; and to ensure all the best, it will be necessary to grow two-thirds of them, there being a great degree of uncertainty in this class of Dahlias. The names of a few of those coming out would lead us to expect something out of the common way. We have Marvel, Leader, Admiration; also Henrietta, Topsy, John W. Hedge, London Don, Mrs. Charles Dickens, and Gossip. If the latter should become as universal as *gossip* in general, it will surpass all other flowers.

BARBAROSSA GRAPE.

SOME information respecting this may interest our readers, as a correspondent of the *Gardener's Chronicle* has mooted the question, whether it is not identical with kinds formerly grown in this country. Having fruited it for two or three years, we can safely affirm it is different from any thing we have hitherto seen. The Black Morocco, to which the writer in question refers it to, is a very different Grape, and is known as well under the synonyms of Black Raisin or "La Cœur"—Black Muscadelle. It has a long oval berry, with coarse flesh, and so bad a setter, that it requires artificial fertilisation to get a crop. We have long discarded it.

The Barbarossa may be described as one of the finest-looking grapes in cultivation, with a bunch and berry similar to the Ham-burgh, but both larger; the berries when well grown being covered with a beautiful bloom, which adds much to their jet-black appearance. The leaves turn early to a glowing red colour, and at that stage are highly ornamental. The flavour is certainly only second rate,

but it keeps remarkably well, continuing fresh and plump for a long period. Some pronounce it a shy bearer; we do not, and consider it a valuable late variety; but we see no reason why it should supersede the Wests' St. Peter's, which, though not so fine a berry, beats it in flavour, and equals it in keeping properties. S.

FLORAL MISREPRESENTATIONS.

IN the *Floricultural Cabinet* for March 1851, there appeared a plate of a new Rose named *Narcisse de Salvandy*, the markings of which were so unique, "crimson bordered with white," that I was induced to order plants of it (which, however, I did not get till the autumn of 1852), of course expecting that the blossoms, when they made their appearance, would prove the representation to be faithful.

In an article on new Roses (No. 3) in the *Florist* of April last year, I found a verbal description of this Rose quite at variance with



HARRISON'S.

the above-mentioned plate. Mentioning this to a friend (telling him at the same time that it was one of M. Van Houtte's nouveautés), he

suggested my searching the *Flore des Serres et des Jardins de l'Europe*, published by that eminent cultivator; and here I found a plate of the Rose in question, much more in accordance with your correspondent's description than the illustration in the *Cabinet*. Before, however, making any public exposure of so apparently wilful a deception, I waited the blossoming of my plants, when the latter illustration and your correspondent's description were entirely confirmed, and the portrait in the *Cabinet* shown to be a disgraceful misrepresentation; in proof of which I made tracings from each plate (see woodcuts),



VAN HOUTTE'S.

which unmistakably exhibit the figure in the *Cabinet* to have been a mere copy of the other plate, but most gratuitously making the blossom appear a full double flower, when in reality it is only a semi-double variety. A mere artistic error no reasonable person would think of making strife about; but when so unblushing a deviation from truthfulness as this occurs, it seems to me to be a duty we owe to one another, in order to guard our brethren from being misled, to expose the deception as much as possible.

AN AMATEUR CULTIVATOR.

GOSSIP AND NOTICES.

IN another page of our present Number our readers will find a suggestion from Mr. Rivers on the formation of a Pomological Society, to which we beg to direct the attention of all interested in the culture of hardy fruits. There can be no doubt that a Society such as Mr. Rivers has proposed (if rightly constituted) would be the means of effecting a great amount of good; and by disseminating a knowledge of the most useful varieties of hardy fruits (not only of our own country, but of America and the Continent as well), with hints requisite for their profitable cultivation, would add much to the comfort and enjoyment of large classes of the community; and we therefore most cordially give our assistance in bringing the subject forward. What a small number, comparatively, of our urban and rural population is there who can command a sufficient supply of such a wholesome fruit as the Apple! using that as a luxury, we may say, which ought to constitute an article of daily food. What, in the shape of the above, we ask, would not the population of our manufacturing districts consume, if they could be purchased at a cheap rate, for eight or nine months in the year? Besides, we are now obliged to import a considerable quantity each season to supply the demands of Covent Garden alone; and surely our climate is not altogether so bad, that we could not grow Apples, &c. sufficient, if we try to set about it. We mention this fact, because we think it should be *one* object of this Society (when established) to point out to landed proprietors, farmers, &c. the best variety of hardy fruits suitable for different soils and situations, where such could be profitably grown. There are hundreds of miles of hedge-rows in England alone, now choked up with scrubby Elm and Ash, to the manifest injury of what may be growing beneath them, which might, by planting them with fruit-trees, be converted into a source of considerable revenue to the owner, besides yielding a large quantity of a wholesome kind of food and beverage to the lower classes. This illustration only shows how useful such an institution may become, in addition to increasing the information respecting fruits, and the love of them, among the more wealthy classes. We shall now conclude with reminding our readers that prospectuses will soon be issued, explaining more fully the objects which the intended Society is most anxious to attain. We understand Mr. Spencer, of Bowood, has consented (for a time at least) to receive suggestions from parties interested respecting its formation, as well as the names of those wishing to become members.

We regret to learn, that all, or at least the greater part, of the unequalled collection of Exotic plants at Ealing Park—which have so long elicited the admiration of all who have seen them—are to be disposed of. Although the collection taken together is, we fear, too extensive for any private individual to purchase, we are not without hopes that some of our botanical societies will furnish the funds

to purchase them, so as to preserve the collection entire; and we even venture to think, that to the Crystal Palace Company, or the Royal Botanic, they might form a profitable investment. But we speak without the slightest idea of what is asked for them in a lot.

Of the expense and skill required to keep up so large and varied a collection in the health and vigour in which we have always seen it, those only can form an idea who have attempted to grow costly plants difficult to manage for exhibition; and we cannot let the present opportunity pass over without paying a tribute of respect to the lady under whose direction, and through whose liberality and perseverance, such magnificent results have been attained in cultivation. Nothing that money or skill could supply was ever wanting to make the plants she grew, what they really were, a nation's wonder.* But the good thus effected to gardening and gardeners did not rest here. Has not her love of good culture been imitated? Has her example done nothing for the country generally? We answer much,—very much indeed. Many a gardener in distant parts of the country dates his now successful management from a visit to the Chiswick fêtes or Ealing Park. And it was impossible for her plants to be exhibited without producing a spirit of emulation among the nobility and country gentry, who annually saw her specimens arranged on the Exhibition-tables at Chiswick and Regent's Park. We speak from a perfect knowledge that such was the case; and thus, on behalf of the horticultural and floricultural public, feel it a pleasing duty to tender our obligations to Mrs. Lawrence for her public spirit and the patronage she so long extended over nearly every department of gardening.

THE GENUS FRANCISCEA.

AMONGST the species constituting this genus of tropical shrubs are included some of the best hothouse plants in cultivation. Indeed few are better deserving of assiduous attention, or produce a more pleasing effect, when well managed, than some of the many kinds of *Franciscea*. They are all hard-wooded evergreen shrubs, producing a great profusion of sweet-scented flowers, which, by means of a little judicious management, may be had in beauty most of the year. About sixteen species are known as belonging to the genus, all of which are natives of Brazil. Since the introduction of the well-known *F. Hopeana*, nearly thirty years ago, various others far surpassing it both in foliage and flowers have emerged into cultivation, and which undoubtedly are indispensable to all collections where choice kinds are a requisition.

As regards cultivation, *Francisceas* luxuriate in plenty of heat and moisture while growing; but when established, and the wood is

* We may add, foreigners admired even more than ourselves her magnificent plants.

properly ripened, they will do with a very moderate temperature, and a very reduced or rather dry atmosphere. The flowers are produced on the apices of the young shoots; therefore, previous to starting them, cut them well back; and if they are old plants, shake them out a little or reduce their balls, and pot them in a fresh compost of leaf-mould, turfy peat, and sandy loam, in about equal proportions, with good drainage, and not in over-large pots; keep them in a close atmosphere with a brisk heat, syringing over head every day while growing; stop the young shoots as they progress, and train them into shape, so as to form a good specimen. The following species of this genus are in cultivation at Kew.

F. CALYCINA. This is one of the best, forming a compact bush two feet high, and flowering freely on very small plants; the leaves are oblong, rather elliptical, three to four inches long; glabrous, of a good substance, and green on both sides. The flowers are from two to eight in a cyme, of a violet blue, becoming light with age; each flower is nearly two inches across, and remains in perfection for a considerable time. This plant is known as *F. confertiflora*.

F. EXIMIA is the most beautiful species in cultivation; it is of a rather robust habit, two to three feet high; the leaves are oblong-lanceolate, four to seven inches long, undulated, darkish green above and whitish beneath, and covered throughout with small hairs, which render them soft to the touch. The flowers are large, very showy, two to five in a cyme; each flower two and a half inches across, deep lilac, ultimately becoming nearly white.

F. HOPEANA. This grows about two to three feet high, has smooth leaves two to three inches long, undulated, green on both sides; flowers usually solitary, very fragrant, near an inch and a half across, of a deep violet, fading to white.

F. HYDRANGEIFORMIS is a robust grower, attaining the height of three to four feet, branching mostly towards the apex; the leaves are smooth, oblong-obovate, six to nine inches long, tapering to a short thick foot-stalk; the flowers are in a dense compact raceme or cyme, forming a rather large compact head, somewhat resembling *Hydrangea hortensis*; they are of a fine rich blue purple, becoming almost white in age.

F. HYDRANGEIFORMIS ALBA. This variety has white flowers, otherwise not different from the original.

F. HYDRANGEIFORMIS ELEGANS. In this variety the flowers are larger and finer than the original, and it is likewise of a better habit.

F. LATIFOLIA. This species has smooth ovate leaves three to four inches long, rather thin, and of a light-green on both sides; the flowers are two to three together, violet, but soon becoming paler with age.

F. VILLOSA. This very much resembles *F. latifolia*; is of a larger and more robust habit, with smaller flowers; the leaves are three to five inches long, oblong-ovate, and hairy on the margin.

F. ACUMINATA. This is a very neat-looking plant, and will form a compact bush one to two feet high; the leaves are oblong-acuminate, minutely hairy, two inches long, green on both sides, and the young branches are of dark colour; the flowers are from two to six in a corymb, of a deep purple, soon fading to pale.

F. ANGUSTA. This species much resembles *F. acuminata*, but is of a more robust habit; the leaves are two to five inches long, and minutely covered with very small hairs, which give them a roughness, especially beneath. The plant grows two feet high, has violet flowers, which soon become light.

Royal Botanic Gardens, Kew.

J. HOULSTON.

METHOD IN GARDENING.

IN nothing is a careful gardener more distinguished from a careless one, than by the observance in all his procedures of *method*; and nothing conduces more to his superior success. In fact, how can any thing be done without it? A methodical man will accomplish twice as much in a given time as one who has vastly more ability, and works thrice as hard, if deficient in this essential element of success.

There is just one point which I would suggest to the consideration of my gardening readers, in connection with this subject, which I would designate *working by plan*.

It can hardly fail to have occurred to any one who notices the results of his experience, how much more is accomplished by a man who has a certain and definite object before him, than by one who works on, however hard he may toil, without a purpose and without a plan. In nothing is this more exemplified than in gardening. Its operations, many of them, to be successful, must be performed at precise and particular seasons, and are more dependent upon this than those of almost any other occupation. Very few gardeners have time to spare; most, in the busy seasons especially, are pressed for time; and hence it becomes absolutely essential to economise it by method in its employment.

Effectually to do this, the work of each month should be sketched out on paper at its commencement; each Saturday night or Monday morning, a more detailed arrangement should be made of the operations for the ensuing week; and each evening the work should be allotted for the following day. This may seem a tedious and impracticable course, but having had practical experience of its value, I am bold to maintain, that half as much again at least will be accomplished, and what is done will be better done.

As a necessary accompaniment to this scheme, I should place the keeping of a diary of all the work done in each department of the garden every day in the year. This is somewhat troublesome, but its utility so entirely outweighs its difficulty, that, once adopted, it is certain to be continued. The value of such a record, indeed, it is not easy to overrate. It furnishes just the guide that is wanted in the pre-arrangement of work recommended. It is true the weekly and monthly calendars given in the different gardening periodicals will in a measure supply this want, but only in a measure; these helps, like all other helps, are only useful to those who help themselves; to those who make them substitutes for consideration on their own part, they are worse than useless. But let a man have such a record as described of his own work in past years to turn to, at the beginning of every month he will go carefully over it, see what was done at the same time in previous seasons, to refresh his memory; then call to mind how it succeeded, whether a given operation was performed too early or too late, or in any respect improperly; and thus, guided by the experience of the past, lay his plans

for the future. It is needless to observe that a journal of this kind, to be really valuable, should be a veritable record of *all* the work done; it is scarcely possible to pay too much attention to the *minutiæ*. It is just the overlooking of little things which often throws us out, far more than great mistakes. It may perhaps diminish the labour in extensive establishments, if the foreman of each department is required to keep an account of the work performed in that department, and return it weekly to the gardener. But I would lay very great stress upon having the journal by some means or other as complete as possible.

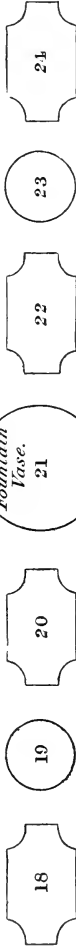
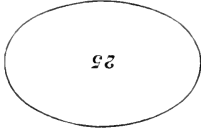
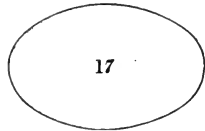
One of the most successful practical gardeners I ever knew began the practice recommended above during his apprenticeship, and has continued it without intermission for thirty years. How much of his success is due to it, I will not say, but I believe a great deal. He has now by him a complete account of what he has done;—a faithful record of the success or failure of all the different plans he has tried, forming altogether a body of practical garden literature, far superior for his guidance in the future to a whole library of theoretical horticulture, or the experience of other men.

Horticulture as a science is as yet but very imperfectly understood, notwithstanding the fine plants we are able to grow; just as medicine is allowed by its most competent practitioners to be yet in its infancy, notwithstanding the number of cures they daily effect. It is by carefully observing and recording their experience that physicians hope to perfect their science; and horticulturists, to effect a similar end, must employ similar means.

F. W. JOYNES.

COOPER'S HILL, ENGLEFIELD GREEN.

Of the many gentlemen's seats of which Surrey can boast, few are more pleasantly situated than this, the residence of Sir John Cathcart, Bart. The house and grounds occupy the summit of a hill about four miles south-east of Windsor; and so great is their elevation, that the different views from the pleasure-grounds are both extensive and beautiful. The royal gardens and Windsor Castle are embraced in the north-west view, and Magna Charta Island and Runymede are immediately under the north-east side of the grounds, with Harrow-on-the-Hill in the distance. Turning to the right, you look down upon Egham and Staines. These gardens are celebrated as much for the lengthened and beautiful display of flowers maintained in the ornamental department out of doors, as for the noble specimen plants which they annually furnish to grace our great metropolitan exhibitions. A feature of much importance here is the winter-garden, formed by filling the beds of the flower-garden with winter and spring-flowering plants; it has been exceedingly gay during February and March, and will continue so until the hardiest of the bedding-plants can be ventured out. In high situations like



this, however, where the ground is well drained, frost is not so much to be feared as in valleys or flat-lying localities. Dahlias will often remain in bloom here until Christmas, and a scarlet Rhododendron was in full blossom on the 4th of March.

Notwithstanding the advantageous position of the grounds, favourable results could not be obtained however, except under good cultivation; and great credit is due to Mr. Dods, the gardener, for the skill evinced in the general management of the place; for it is not one thing alone that is done well, every department is in the best possible condition.

As at this season it may be useful to know what the different beds out of doors are filled with, we have thought it well to furnish our readers with the annexed plan of the flower-garden, and with the following list of plants, for summer decoration as well as for winter use, with which each bed is planted; the numbers in the plan correspond with those in the list.

PLANTED DURING SUMMER.

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|--|--------------------------------------|
| 1. Geranium lucidum. | 22. Verbena Iphigenia. |
| 2. <i>Ænothera macrocarpa</i> . | 23. „ Lady of the Lake. |
| 3. Geranium unique. | 24. Calceolaria Kentish Hero. |
| 4. Scarlet variegated Geranium. | 25. Shrubland Scarlet Geranium. |
| 5. Duke of Cornwall Geranium. | 26. Geranium quercifolium coccineum. |
| 6. Mangles' Floribundum Geranium. | 27. Mangles' variegated Geranium. |
| 7. Verbena Robinson's Defiance. | 28. Verbena Morphea. |
| 8. Calceolaria viscosissima. | 29. Geranium diadematum erubescens. |
| 9. Verbena Iphigenia | 30. Flower of the Day Geranium. |
| 10. Verbena Lady of the Lake, or any good rose-coloured variety. | 31. Pink Ivy-leaved Geranium. |
| 11. Princess Alice Geranium. | 32. Verbena Chauvieri. |
| 12. Calceolaria amplexicaulis. | 33. <i>Ænothera macrocarpa</i> . |
| 13. Scarlet China Rose. | 34. Geranium floribundum (Mangles'). |
| 14. <i>Ænothera macrocarpa</i> . | 35. Verbena speciosissima. |
| 15. Mangles' variegated Geranium. | 36. Pink Ivy-leaved Geranium. |
| 16. Verbena Morphea, or any good purple. | 37. <i>Ænothera macrocarpa</i> . |
| 17. Shrubland Scarlet Geranium. | 38. Geranium floribundum (Mangles'). |
| 18. Calceolaria viscosissima. | 39. „ unique (dark). |
| 19. Scarlet China Roses. | 40. „ Princess Alice. |
| 20. Duke of Cornwall Geranium. | 41. „ Princess Royal. |
| 21. Compactum Geranium (fountain bed). | |

PLANTED AS A WINTER GARDEN.

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|-----------------------------------|---|
| 1. <i>Iberis sempervirens</i> . | 14. Rhododendron ponticum. |
| 2. Heath (seedling). | 15. Mahonia aquifolia. |
| 3. Rhododendron ponticum. | 16. Erica herbacea. |
| 4. <i>Ledum buxifolium</i> . | 17. „ „ |
| 5. <i>Heleborus niger</i> . | 18. Anemone, mixed. |
| 6. Erica scoparia. | 19. Scarlet China Rose. |
| 7. Single blue Hepatica. | 20. Laurustinus. |
| 8. <i>Alyssum Saxatile</i> . | 21. Rhododendron ponticum (fountain bed). |
| 9. Erica herbacea. | 22. Erica carnea. |
| 10. <i>Heleborus niger</i> . | 23. Anemone (mixed). |
| 11. Mixed Pansies. | 24. <i>Heleborus niger</i> . |
| 12. <i>Andromeda floribunda</i> . | 25. Erica herbacea. |
| 13. Scarlet China Roses. | |

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| 26. <i>Andromeda floribunda</i> . | 34. <i>Rhododendron ponticum</i> . |
| 27. <i>Mahonia aquifolia</i> . | 35. <i>Erica</i> (seedling). |
| 28. <i>Rhododendron ponticum</i> . | 36. <i>Anemone</i> (mixed). |
| 29. <i>Erica Mediterranea Hibernica</i> . | 37. <i>Alyssum saxatile</i> . |
| 30. <i>Erica herbacea</i> . | 38. <i>Ledum buxifolium</i> . |
| 31. <i>Polygala Chamæbuxus</i> . | 39. <i>Anemone</i> (mixed). |
| 32. Double red <i>Hepatica</i> . | 40. <i>Erica herbacea</i> . |
| 33. <i>Jasminum nudiflorum</i> . | 41. <i>Iberis sempervirens</i> . |

A north-east strip of ground is devoted to nursery purposes, and to which the winter-flowering plants are removed as soon as the time arrives for "bedding-out;" and they remain there to mature their growth previous to taking up their position in the winter-garden at the close of the autumn.

The glass erections here consist of a conservatory adjoining the mansion, a fine range of glass running the whole length of the kitchen-garden, and numerous pits and forcing-houses.

The conservatory was as gay as a tent at a flower-show. The fine bank of *Camellias* planted out in the centre of the house were covered with blossoms; and amongst them a handsome well-grown plant of *Chandleri elegans*, about ten feet high, formed a noble object. Amongst other plants in bloom, the most conspicuous were scarlet and other *Rhododendrons*, *Azaleas* (both greenhouse and hardy varieties), *Roses*, *Tree Carnations*, *Hyacinths*, *Tulips*, *Narcissi*, and other bulbs; together with a few *Orchids*, *Lilies of the Valley*, *Lilacs*, several fine plants of the favourite *Dielytra*, and beautifully flowered specimens of *Deutzia gracilis*, which were also forced last year, and afterwards repotted and plunged out of doors during the summer months.

The principal range of houses before alluded to is divided in the centre, one part being devoted to fruits, the other to plants; and this division is again sub-divided into three divisions with glass partitions, the centre one forming the stove. The two end divisions are filled principally with *New Holland plants*, *Ericas*, *Azaleas*, &c., chiefly large plants, many of which are noble specimens, in the most luxuriant health, and well set with flower-buds. In short, such is the superior growth of many of the plants here, that we have been induced to give the dimensions of a few of them. A very fine specimen of *Eriostemon buxifolium* was 5 ft. high and 5 ft. wide; *Chorozema ilicifolium* and *Polygala acuminata* were of the same dimensions. The beautiful *Gompholobium barbigerum* was 4 ft. high and 4 ft. wide; there was likewise a handsomely furnished plant of the *Pimelea spectabilis*, also *Boronia pinnata*, *Erica jasminiflora*, and the finest plant we have ever seen of the blue *Leschenaultia*. Each of these were 3 ft. high and 3 ft. wide. *Erica Cavendishi* was 3½ ft. high by 3½ ft. wide, and *Boronia serrulata* was 2½ ft. high by 2½ ft. wide. We are also tempted to select four splendid *Azaleas*: *Lateritia*, a perfect pyramid, 5 ft. high by 5 ft. wide; *Double red*, 6 ft. high by 4 ft. wide; *Gledstanesi* and *Variegata*, each 3 ft. high by 4 ft. wide.

The stove, which is a large one, is heated on the most approved principles, with a tan-pit in the centre. In this house was *Hexacentris mysorensis*, in luxuriant health, completely covering a trellis

4 ft. by 3 ft. It is a fast-growing stove-creeper. There were also *Ixora coccinea* 4 ft. by 3 ft., and *Ixora javanica* 3 ft. by 3 ft., both in fine health. Allamandas, Dipladenias, Medinillas, and other things that make good exhibition plants, are grown here extensively. A small house is devoted to Orchids, among which we noticed an enormous specimen of *Dendrobium nobile*, and fine plants of *Dendrobium Paxtoni*, and *D. densiflorum*, *Aerides virens*, *A. affine*, *Saccolabium* and others, the most interesting of this tribe of plants.

The forcing-houses are in five compartments, two of which are devoted to Hamburg Grapes, two for Muscat Grapes, and one for Peaches. In the earliest house of Hamburgs, the bunches are very fine, and will soon begin to colour. One of the houses is retarded to the latest possible period, and by this arrangement a prolonged succession of fruit is obtained.

Cucumbers are grown here in small houses heated with hot water, thereby avoiding the litter and trouble caused by manure. Asparagus is grown in beds, similar to the method described in our account of the Royal Gardens at Frogmore, but heated with manure instead of hot water.

We observed a Peach wall 200 ft. long, which has been covered with glass. This has been effected with common upright lights, so arranged that air can be admitted both at top and bottom; the front plates on which the lights rest is about 4 ft. 6 in. from the wall, leaning towards the top. This glass covering was erected about a year since, and the trees promise a fine crop of fruit.

In the pleasure-grounds, the numerous Evergreens, choice American plants, Conifers, and other ornamental trees, have entirely escaped injury from the late frost, which proved so destructive in many places. *Picea Nordmaniana*, nearly six feet high, appears to be one of the handsomest of this tribe of plants, and is perfectly hardy. We also observed a handsome young plant of *Pinus Montezumæ* quite uninjured.

BOTANICAL AND HORTICULTURAL NOMENCLATURE.

LIKE your correspondent "Treverbyn," I am a great admirer of the Rhododendron and Azalea, and do not care how much space you allot to them, nor how often you give us such beautiful illustrations as Rhododendron Cunninghami, or the two new varieties of Azalea raised by Messrs. Ivery. For these accept my thanks; and give us more handsome novelties in this way as soon as you conveniently can.

I also agree with "Treverbyn" that the name of neither Smith nor Brown convey any idea of shape or colour, and that such dreadful dog-Latin as *Marriageanum* is by all means to be avoided; but neither do the more elegant appellations of Coral Queen or Glow-worm describe in any effective way the characteristics of a species or variety. It is indeed almost impossible to do this in a single word or

phrase; and the attempt often misleads instead of assisting the imagination. I am an old stager, Mr. Editor—old enough to remember the first introduction of most of our present favourites, except the Tulip, the Hyacinth, and others, the taste for which has been transmitted through many generations—and I can assure you, that the proper designation of plants has at all times been a perplexing puzzle to botanists. The attempt to describe *genera* by appropriate names was soon abandoned. Neither of the words Rhododendron or Azalea have any peculiar fitness for the handsome families bearing those names; and the remark is of almost universal application. The next step was to name *genera* after their discoverers, or after some eminent botanist—as Camellia from Kamel, Fuchsia from Fuchs, &c.,—and to attempt description by the specific name. The first Camellia (the single red) was called Japonica, from the country from which it was received; the double red was called Rubra; the double white Alba; the double spotted Variegata; and the first Fuchsia coccinea—all names very appropriate, but which have long ceased to be distinctive. Designations derived from the colour of the flower being found ineffective, it was then tried to take them from some other part of the plant. Thus Crinum erubescens was so called from its having a purple-red stem, though the flower is pure white; and the terms *splendens* and *splendida*, applied to the leaves of plants, have, I dare say, disappointed other amateurs besides myself. The recommendation of names derived from persons is, that if they give no information, they do not mislead; though, in the case mentioned by your correspondent, it might have been as well if the christening had been performed in proper clerical Latin (as *nubile* or *maritum*) instead of the canine dialect. This is not a solitary instance of the ludicrous effect sometimes produced by attempting to Latinise names. Escholtzia has puzzled a good many; Michauxia still more; and the familiar Fuchsia bears no resemblance, in its pronunciation with us, to its worthy parent, and ought rather to be called Foxia.

While on the subject of names, permit me to make a digression, which may amuse some of your readers. A highly respectable gentleman of Manchester having to give evidence in a court of law, and being asked his name by the judge, replied, "Ottiwell Wood." The judge not hearing distinctly, requested him to spell it, which he did as follows: "O, double t, i, double u, e, double ll, double u, double o, d." Whereupon the judge laid down his pen in despair; and I think, Mr. Editor, that "Treverbyn" and I might do the same, were we to attempt the hopeless task of rectifying horticultural misnomers. Whatever inconvenience results from them may be easily remedied (as has been pointed out by your correspondent "Mediterraneus") by descriptive catalogues. They are now becoming general, and only want more completely systematising to answer all practical purposes. Let plants whose varieties are numerous and much sought after be first of all classed under their leading colours—as red, white, purple, pink, yellow, &c.,—in numerical order; secondly, let each variety have a description attached to it of the shade of colour, size of flower, &c., with any other particulars of its character and habit; and at the close of

the section, let any varieties which it is wished to especially recommend be referred to by their numbers. If this were done, names would be of little consequence for business or ornamental purposes. Each man may re-christen his own plants, if he be so inclined, provided he is correct in describing them. As it is, the same name will not always bring the same plant from two nurseries; and a mere list of names is useless to all but those who are already acquainted with the plants. In the hope of drawing attention to what is every year becoming more necessary, I have sent you these hasty remarks.

NOMINIS UMBRA.

THE STUDY OF ENTOMOLOGY.

HORTICULTURE is a pursuit which, perhaps more than any other, is dependent upon related sciences. It cannot stand alone. Hence a good gardener must know something of almost every thing. It is said now that he must be a botanist, a chemist, a geologist, a physiologist, and I know not what beside. And if he would be first-rate in his profession, all this is indisputably true. An acquaintance with natural history too is held to be an advantage; and there is one branch of this science which assuredly demands his most careful attention, I allude to entomology. Insects enter as much almost into the gardener's plans and calculations as plants, and it seems only reasonable that he should know something about them. Their operations are among the hostile influences on which he must always reckon, and which in many cases completely disarrange his plans and thwart his purposes. To know an enemy and his tactics is half a victory over him. The work of the gardener is a continual warfare, and his success must obviously very much depend on his acquaintance with the foes he has to deal with. Yet how few think entomology deserving of any attention! To be sure, they know an insect when they see it; at least they would think their powers of observation fearfully maligned if told to the contrary. But nevertheless they continually give proof of their ignorance when they place, as frequently they do, slugs, worms, and snails in the general category of insects, although they have no more claim to the appellation than themselves. This is often done by persons who consider themselves well-educated, and in most respects are so; but certainly it is not quite the thing for a well-educated gardener.

The study of entomology is a most attractive one. In no department of nature's works do we trace more exquisite beauty, more delicate organisation and perfect contrivance than in the insect world. Those proofs of design and illustrations of Divine workmanship which we are accustomed to admire in the planetary worlds that roll above our heads, are fully equalled in cogency and brilliancy by the elytra of a beetle or the delicate antennæ of some more tiny insect. Like botany, and other branches of natural science, entomology is particularly adapted to those who are incapacitated

by the nature of their daily engagements for more severe studies. It may be pursued, and must be, in fact, amid green fields and flowers, and will thus add a charm to our rural walks; while, as it makes no demand, or very little, on the mental powers, it may be taken up when the mind is wearied, and altogether unfitted for more difficult exertion.

Many would, I believe, be entomologists, but they have conceived the notion that it is not possible to be so without being able to give up a great deal of time, and to purchase expensive apparatus. The notion is altogether incorrect. It is one of the advantages of the science I am advocating that it may be cultivated at the time when the hands are occupied with the duties of the day, at least by those who reside in the country, and are engaged in open-air occupations, the case, I presume, of most readers of the *Florist*. It is only to keep the eyes open to what is passing around, instead of shut. A good book on the subject is of course indispensable. For a beginner I should recommend Westwood's *Introduction*, which will be found exceedingly useful. Every student of any branch of natural science should, however, get it thoroughly fixed in his mind that what he is learning can be learned only from nature herself--books are useful as auxiliaries to observation, but worse than useless if substituted for it. A microscope is generally considered necessary, and it must be admitted is very desirable; but a very competent knowledge of the structure and habits of insects may be gained without its aid. The only instruments absolutely requisite are a pair of forceps, and a Stanhope lens, which will not cost much—a very good one may be obtained for ten shillings. These, however, it may be assumed every gardener, whether amateur or professional, is already provided with. He should be at all events. That it is not so very difficult to acquire the knowledge of insects is proved by the fact, that some of the best entomologists have been persons in the lower ranks of life, who, having a taste for the science, have entered *con amore* into its pursuit, and soon made themselves proficient.

The season of the year gives appropriateness to these observations, because the time is approaching when insects will begin to be abundant, and persons desirous of making their acquaintance cannot have a better time to commence.

F. W. JOYNES.

CALENDAR FOR THE MONTH.

Annuals. Sow throughout the month.

Auriculas. In some localities this chaste spring flower is already repaying the care and attention that have been bestowed upon it, by expanding its beautiful blossoms. The frames should be shaded with thin canvas during the heat of the day; and about the middle of the month remove them to a cool situation facing the north. This will prolong the bloom considerably. Water rather freely now when the plants are growing.

Camellias. The blooming season is now nearly over, and some cultivators prefer shifting them into fresh pots at this season; if such is requisite, dry turfy loam and peat, two-thirds of the former to one of the latter, will be a safe compost; pay particular attention to well draining the pots; use no manure in the soil, but depend on it in a liquid form for what extra help they will require; give them a little extra heat, by early closing the house, now that they are making their wood, and use the syringe freely.

Carnations and Picotees. Finish potting for bloom without loss of time. The pots should be raised from two to three inches from the ground, on strips of wood. If there are any plants left after filling all the pots required, they may be planted out in well prepared beds, which should be elevated, in the event of its being a wet summer, as well as for the convenience of layering. Sparrows at this season often do much mischief by eating the points of the young shoots. Pieces of grey worsted tied above along the rows, a few inches above the plants, will prevent them.

Cinerarias. To prolong the beauty of the bloom, attention must be paid to watering and shading. These plants are now becoming gay, the season being early. In selecting seedlings, compare them with the best cut in the same class. To procure good seed, select a few of the finest shaped kinds, of good habit, and place them in a frame or house by themselves, and keep the bees from them. The work of fertilisation should be done by hand, using a camel's-hair pencil.

Cold Frames. Take every possible means to harden off the stock; the propagation of such things as Verbenas, and other soft-growing plants, may yet be prosecuted. Stocks and other annuals required early should be forwarded in cold frames, and others sown for succession.

Conservatory and Show House. As solar heat and light increase, the house may be closed rather earlier in the afternoon, to dispense with fire; give air, however, betimes in the morning, and let the necessary waterings and cleaning be done as early as possible. As the permanent plants have now commenced growth, let them stand clear, that the young shoots may obtain their full share of light. Let the climbing plants be trained occasionally, avoiding, however, any thing like a formal arrangement.

Dahlias. This will be a busy month with this plant. Propagating will be at its height. Pot off the plants as soon as rooted, growing them in gentle heat, and harden them towards the end of the month; when, if room can be afforded, they may be repotted into three or four-inch pots. Pot-roots, if started now, will make good plants; they will not require so much heat, when once started, as spring-propagated plants. Sow seed in brisk heat.

Epacris. Early blooming kinds should be cut in and placed in a close frame, or moderately warm house, to encourage them to break, syringing overhead to assist them; when started a couple of inches, repot such as require it; turfy peat and sand, with plenty of drainage, will grow them in perfection.

Flower-Garden. Finish the planting of deciduous and evergreen shrubs without delay; the latter will, however, succeed if the weather is showery till the end of the month. Mulching, however, and frequent dampings overhead will be necessary. Turn over and prepare beds and borders, for planting the various bedding-out plants, that every thing may be in readiness when the season arrives. Phloxes, Pentstemons, Carnations, Stocks, and similar things, should be turned out into beds, &c. without delay. Many kinds of perennial plants may yet be divided for increase, or where the plants are too large; attend to neatness, and watch for vermin. Finish pruning Tea and China Roses and their hybrid species, and other shrubs, as danger from frost is nearly over. Climbing-plants against walls and trellises should be pruned and neatly tied in, if not previously done.

Forcing. Look at last month's directions for Vines; bring on succession vineries gently. *Vines* in pots, and those in inside borders, keep moist by occasional waterings; using liquid manure freely during active growth. *Peaches* disbud from time to time; tie in shoots; syringe frequently; close rather early in the day to obtain additional heat, and save fires; give air liberally in forenoon; avoid draughts. Succession-house keep rather dry, till the fruit is set; afterwards syringe, &c. as directed last month. *Strawberries* getting ripe, allow more air to colour and flavour them; bring on successions; water with liquid manure while swelling. *Pines* out of bloom keep damp at root and top; maintain steady bottom-heat; temperature of house by night 65°, day 75°. Successions recently potted keep close till growth commences, after which more air; do not water till they begin to make fresh roots. *Melons*, stop and train; keep a good heat; fertilise the female blooms; earth up as wanted; bottom 75°-80°, top heat by day, same; 68° by night; water sparingly; use pure loam to grow them in without manure, and make it rather firm; close early on sunny days, damping the walls or soil at same time. *Cucumbers*, stop and train carefully; keep the vines thin; avoid taking off full-grown leaves of either Cucumbers or Melons; keep the fruit in a cool place when cut; heat, top and bottom, same as for Melons; sow hardy kinds towards end of month, for ridging out under hand-glasses.

Fuchsias. All these require to make fine plants is plenty of room; this in a moist genial atmosphere, and they may be grown to any size, using good rich soil. Cuttings may be continued to be put in for late blooming plants.

Hollyhocks. Prepare ground for planting out, which may be done towards the end of the month. If it has been deeply trenched with plenty of manure, the Hollyhock will succeed in almost any soil, but should not be planted under trees, or too near hedges. The plants should not be allowed to become pot-bound; it would be advisable to give them a shift if the planting has to be deferred. Seedlings, if large enough, may be planted out at once.

Kitchen Garden. Continue to plant out Cauliflower, Lettuce, &c. from the frames, choosing a showery day for the purpose. A deep rich soil should be afforded them. Earth up and stick Peas when

sufficiently high, and sow the taller kinds for the main summer crops; keep sowing every fortnight Broad Beans, and earth up early-planted ones. Dwarf French and Scarlet Runners may be planted in warm situations. The main crops of Borecole, Broccoli, Savoys, Brussels Sprouts, &c. should be sown forthwith. Look at an excellent paper for preserving the seeds from birds in our last Number. Complete sowing Carrots, Beets, Salsify, and Scorzonera, &c. Prick out the early-sown Celery under a hand-glass, or in a frame. Sow in the open ground for winter crops when the weather is showery, divide herbs and make fresh plantations. Sow to make good for failures. Towards the end, get a ridge prepared for hand-glass Cucumbers.

Orchids. As the successful blooming of these fine plants depends on the strength and vigour of the shoots, do not allow any thing to check their progress; a moist atmosphere, without, however, encouraging water to lodge about their roots, and a nicely regulated temperature, will be the principal points to attend to.

Pansies. Take the small side-shoots, and those produced from the centre of the plant, and put them in as cuttings in store pots, under glass in a cool situation. These will make fine plants for blooming in September, which will again produce considerable increase. By this treatment the spring blooms are much larger, as it strengthens the principal shoots.

Pelargoniums. These will be making great progress this month, and, to prevent their drawing, should have plenty of room. Continue tying the branches as they increase in size, and keep the foliage clean. Green-fly must be kept under; fumigate effectually, just before the plants are coming into bloom, two nights in succession. Watering must be well attended to this month; the pots being full of roots, they dry very fast during bright weather. Shade as little as possible until the plants are coming into bloom; a little shading, however, on a bright day, following dull weather, would be beneficial.

Pinks. See that the sparrows do not attack these; if so, scare them away in a similar manner to that recommended for Carnations and Picotees. If for exhibition, thin the side-shoots as soon as long enough.

Roses. Planting is now becoming somewhat hazardous; but the danger may be obviated by carefully syringing the heads and stems should the weather continue dry. Pruning should now be finished, both with hardy and tender varieties. In pots the maggot will require vigilance to prevent its ravages doing much mischief; the green-fly, too, must be kept down on his first appearance by fumigation. Where blossoms are making their appearance, liquid manure should be given once or twice a week.

Tulips. Protect these well from hail-storms. The less rain they have the better; but if by any chance they should become wet, frost must be kept from them until they are thoroughly dry.



Cinerarias.

1 *Lady Mary Labouchère* 3 *M^{rs} Trulove*
2 *Optima* 4 *Sir Charles Napier*

THE CINERARIA.

WE have this month given an illustration of four beautiful new varieties of this spring-flowering plant, and we feel assured they will become popular favourites. Mrs. Trulove is a striking and distinct flower; colour, pure white ground, heavily tipped with dense crimson-purple, with dark purple disc; it was raised by Mr. Ivery, Nurseryman, Peckham. Optima and Lady Mary Labouchere were both raised by Mr. Bousie, gardener to the Right Hon. Henry Labouchere, Stoke Park, near Windsor. The former is a large, well-formed flower, clear white ground, with a medium belting of deep mazarine blue, small dark disc, and of excellent habit. The latter variety is a most constant and beautiful flower; clear white ground, with a narrow margin of deep lavender-blue, and of excellent habit. Sir Charles Napier was raised by Mr. Chas. Turner, of Slough, and is a striking variety, of dwarf habit, and a profuse bloomer; colour intense dark blue, and of good form.

Sir Charles Napier, Mrs. Trulove, and Optima have been awarded Certificates of Merit at the National Floricultural Society, and Lady Mary Labouchere obtained a first-class Certificate from the same Society, as well as from the Royal South London Floricultural Society.

Where is there a plant, during the autumn, winter, and early spring months, so gay and beautiful as the Cineraria; or which is so useful for exhibition or decorative purposes, or for the embellishment of the flower-vase or bouquet? By artificial light, the colours of some of the rose, crimson, and purple varieties are extremely brilliant; while the white varieties, margined with the preceding colours, are matchless. Add to this, that many of the kinds are deliciously fragrant, and you have nearly all the qualities which constitute a good flower. In treating of the Cineraria as a plant for exhibition, or of its value for decorative purposes (and, in the early part of the season, the plants make a fine display), we cannot refrain from stating that their cultivation should be much improved, and indeed must be before they will assume their wonted standing upon our exhibition-tables. But a few years back Cinerarias were but a lot of poor, starry things, with narrow, flimsy petals, and flowers supported by tall, unsightly stems; but now, thanks to the desire for improvement, the best varieties are dwarf and compact, and, when properly grown, produce perfect trusses of stout, and, in some few cases, of almost perfectly-formed flowers.

When high cultivation is aimed at, peculiar treatment (which we shall presently describe) is required to produce stout, healthy cuttings, as

from such the *Cineraria* can only be properly grown. As the plant is now in bloom, and seedlings will be required, a few of the most esteemed varieties should be selected for that purpose, bearing in mind that those chosen must be of the best possible form, clear colours and marking, as much depends on this in producing new and first-rate varieties. When this is done, some secluded place in the garden should be selected, to keep them entirely apart from any inferior varieties, from which the bees would fertilise them, and produce muddy, unsightly flowers, instead of clear and well-defined colours. When the seeds are ripe, sow immediately in some shady place; and as soon as large enough, prick off thinly into pans or wide pots, and keep close for a few days, until they are properly established, when they may be removed to the open air until large enough to place in single pots: should large plants be required, they should be stopped when about two or three inches high. As soon as the seeds are gathered, the old plants should be cut down, or partly so, as in many instances the crowns of the plants rot if cut too close to the surface. Now that they are cut down, remove them to some shady place (a north border being preferable), until they throw up young shoots, when they should be potted into larger pots, in a light compost, or planted out in the open ground in a light soil, where they will give strong cuttings, and from these only can good specimens be obtained. When they have grown about an inch or two, remove the cuttings, and place them in a compost prepared for the purpose—composed of equal parts of loam, leaf-mould, and silver sand, taking care to well drain the pots with potsherds. When rooted (which will be in about a fortnight), pot off into thumbs or small 60s, in a nice light soil.

Should first-rate plants be wanted, every care will now be required to keep them in a growing and healthy condition, to which end they should be shifted every few weeks, until they receive their final potting, which should be about January; every care should be taken that they do not get pot-bound in the small pots, as that will throw them into a blooming state immediately.

The compost we would recommend for exhibition purposes, and for large plants generally, would be two parts of good turfy loam, and equal parts of well-decomposed cow-dung and leaf-mould, with an admixture of silver or river sand. As the plants grow, take care to thin out all superfluous leaves, so as to admit the air freely and prevent mildew, which is a great pest, and which can only be removed by applying sulphur to the parts affected.

The *Cineraria* should only be stopped once, as the second operation tends to produce weak growth. As soon as the shoots are long enough, tie out wide, keeping the outer branches as low as possible, and place them close to the glass, which will insure dwarf and compact plants, such as are represented in the accompanying illustration. We had nearly forgotten the drainage, which should be of rough leaf-mould and potsherds mixed, which will keep the roots in a white and healthy state; fumigate occasionally, to prevent the green-fly; and water very sparingly through the winter months, increasing it as the spring advances, when weak liquid manure may occasionally be given.

For the guidance of the amateur and those interested in the cultivation of this charming plant, we append a descriptive list of the best and



most useful varieties yet sent out. At the close of the season, a descriptive list of the new varieties to be sent out next autumn shall be given.

SELECT LIST OF CINERARIAS.

- Asmodeus (Turner), bluish purple self, fine habit.
 Charles Dickens (Henderson), purplish puce, fine habit, very dwarf.
 Estelle (Henderson), white, light purple edge, dark disc, very large.
 Electra (Ivery), violet, yellowish-white disc, free dwarf habit.
 Formosa (Henderson), dark violet self, light disc, very profuse.
 Kate Kearney (Henderson), large white self, strong grower.
 Lablache (Henderson), deep blue, dwarf habit.
 Lady Camoys (Sutton), white, blue edge, dwarf, and free.
 Lady Hume Campbell (Henderson), clear white, with shaded blue margin.
 Lord Stamford (Henderson), white, azure-blue edge.
 Loveliness (Henderson), bright rosy lake, fine habit.
 Mr. Sidney Herbert (Henderson), fine large violet purple self.
 Mrs. Sidney Herbert (Henderson), white, rosy carmine edge, fine habit.
 Mrs. Charles Kean (Henderson), rosy lilac, with a ring of white round the disc.
 Mrs. Beecher Stowe (Lochner), white, purple edge and disc, large trusses.
 Novelty (Henderson), azure blue, with light disc.
 Orlando (Ivery), bluish purple, with a ring of white round the disc.
 Picturata (Henderson), white, rosy violet edge, good form and habit.
 Prima Donna (Henderson), blue self, dwarf, good form.
 Prince Arthur (Henderson), scarlet-crimson self, very fine.
 Rosalind (Henderson), in the way of Lady Hume Campbell, with a pink tinge in the margin.
 Rosy Morn (Henderson), white, broad rosy crimson edge, large, and free.
 Scottish Chieftain (Sievwright), white, deep violet edge, fine.
 Teddington (Ivery), light purple self, dwarf and free.

THE WINTER OF 1853-4.

HAVING passed through a winter remarkable for its severity and dryness, its effects on plants and vegetation generally are worth noting; and in addition to our own remarks, we invite our correspondents to send us notes of what plants and vegetables have suffered from the late frosts, and what have escaped under similar conditions. This, when collected, will form a mass of evidence of the greatest importance, in deciding their comparative hardiness.

Without noticing the extreme point to which the thermometer fell during the latter part of December and the beginning of January (for the registered accounts show a great difference in this respect, within even a very limited area), we may observe generally, that the frost appears to have been much more severe in the northern and midland counties than in the neighbourhood of London or the West of England; but in every part its effects would have been more severely felt had they not been somewhat mitigated by the snow which accompanied it, and with us the greatest mischief occurred after a partial thaw, which deprived many plants of their natural protection.

But our readers must bear in mind that the power which plants possess of resisting the effects of cold depends very much on the wetness or dryness of the preceding season. Hot and dry summers produce a favourable effect in preparing plants for severe cold, by inducing an early cessation of growth and consequent maturity of wood; and by enabling plants to get rid of a portion of the watery fluid contained in their system; while at the end of wet seasons (such, for instance, as the years 1852 and 1853) trees and shrubs are found growing long after they should have ripened their wood, and as a natural consequence are surcharged with crude sap till their cells are ready to burst—prevented from passing off by the ordinary channel, the leaves—owing to a low temperature and damp atmosphere; the effects of a low temperature following on such conditions are sure to injure, more or less, plants natives of a warmer climate than Britain, but which would otherwise have passed through an equal amount of cold unscathed; for it is not the cold of our ordinary winters which injures exotic plants, but the want of heat during summer and autumn, which predisposes them to suffer by a temperature which in some instances is even higher than the winters of the country to which they are indigenous. For instance, there are but very few Australian plants which, under ordinary greenhouse culture, will bear more than two or three degrees of frost; and yet, during the season corresponding to our winter in New Holland, the nights are intensely cold, the thermometer frequently falling several degrees below the freezing point, yet nothing is injured; but then vegetation there is exposed during the day to a climate many degrees hotter and drier than our own; and the young wood of plants, even as it is formed, is of a much firmer character in consequence, and is thus enabled to withstand the extraordinary changes in temperature which occur within the 24 hours.

We must here remind the uninitiated that, during severe frost,

plants, which are at all tender, should be shaded from the sun; the bad effects of frozen plants being exposed by day to the sun are apparent most winters. We are aware that, on a large scale, this cannot be avoided entirely; but as young, fast-growing plants are more likely to get injured than larger, and such as have formed some portion of old wood, a little trouble in this way will at times save valuable specimens. Last spring we had some *Taxodiums* killed nearly to the ground, while trees within 100 yards of them, growing in the shade, escaped without injury.

We hope the above general hints will be of service to those who, year after year, are turning out plants from various quarters of the globe, to the climate and soil of Britain, their adaptation to which is a matter of speculation, excepting the very decided negative the late winter has given to many novelties in the tree way, which the comparative mildness of previous winters had led their sanguine admirers to consider safe.

Before enumerating our list of casualties, we may observe that, as no means can alter our climate, we should try to counteract its effects on the plants we wish to acclimatise, by planting them either on naturally dry or well-drained land; excess of vigour should be kept in check by a poor soil; and low, damp situations should be avoided, both from being unfavourable for ripening the wood and being more subject to spring frosts. The outskirts of plantations, and where the shelter of existing Furze, Broom, or Heath can be employed for a few years, are the most favourable sites for commencing the growth of trees, &c., when any doubts of their hardiness are entertained.

At Bowood Park, Wilts, among a collection of Coniferæ, including everything introduced supposed to be hardy, the following are dead:—*Pinus Russelliana*, *Winchesteriana*, *Grenvilleæ*, *Devoniana*, *filifolia*, and *leiophylla*. *Pinus patula* is browned but not killed; *Juniperus Bermudiana*, killed; *J. tetragona* and *flaccida*, injured; Cedar of Goa, much injured.

Among plants generally reckoned tender, and recently introduced kinds, the following have not been injured:—*Cupressus Corneyana*, *C. Knighti*, *C. Funeris*, *Saxe-Gothæa conspicua*, *Fitz-Roya patagonica*. *Libocedrus chilensis*, a little touched; *Doniana*, ditto; *Cupressus Goveniana*, slightly browned; *macrocarpa* is now beautifully green, and is really a valuable plant; *Pinus Hartwegi*, not injured in the least; *Montezumæ*, ditto; *Pinus Lindleyana*, not injured; *P. apulcensis*, *ayacahuite*, *occidentalis*, *muricata*, *tuberculata*, and *Cunninghamia lanceolata*, not injured; *Cryptomeria*, same; *Arbutus* and *Laurustinus*, killed in low situations; on dry soils merely browned.

A SUGGESTION ON THE MODE OF EXHIBITING FLORISTS' FLOWERS IN POTS.

AMONG the alterations which might be made in the arrangements of flower shows, and which would have to be classed as a decided improvement, would be the total disuse of the unpleasantly formal staging now so common—in so far, at least, as concerns the display of all subjects growing in pots. My mind's eye instinctively reverts to the long banks of Pelargoniums to be seen at these floral gatherings,—gorgeous displays, indeed, of rich and varied colouring, but, oh! how formal! The same, in some degree, may be said of many other richly coloured abundant-flowered groups, of which considerable numbers are staged, though in some of these cases, as in the instances of Roses and Indian Azaleas, the foliage does very often afford anything of relief to the eye.

I believe the best way of arranging these matters would be to abandon stages altogether for all growing plants, to intermix the different kinds of plants, retaining smaller groups of striking subjects, and introducing, much more than at present, the element of varied and picturesque foliage. This mode of arrangement would entail some amount of trouble, and is on that account, perhaps, not very likely to be adopted.

In the cases, however, of Pelargoniums, Pansies, Calceolarias, Roses, Fuchsias, Azaleas, Ericas, &c., it would be a decided improvement on the present practice to arrange the plants on a level surface beneath the eye, exactly in the manner of a nicely laid out geometrical flower garden, the outer series of pots being concealed by any readily available material. How much more natural-looking, and how much less expensive, too, than the huge ungainly timber platforms, ill-concealed by equally unsightly druggot, and too often displaying the potter's vessel rather than the horticultural talent which it contains—the burnt clay rather than the perfected plant!

I have instanced Pelargoniums and such-like plants for this mode of arrangement, because, from their habit of growth and mode of flowering, they would in fact produce a parterre on the modern grouping system; but there is no reason why other kinds of plants should not be similarly arranged, and except in the case of very dwarf subjects, such as Alpines, which, by the way, are of little moment at a floral exhibition, the effect would at least be better than that of the present plan of elevating the plants above the level of the eye.

M.

ELVASTON CASTLE, DERBYSHIRE.

HAVING recently paid a visit to this celebrated place, I send you a few notes of it, for insertion in the *Florist*; and as information respecting the fate of novelties, during the last winter, is much inquired after, may help to show what of them have suffered in the Midland Counties.

The grounds at Elvaston are without question unrivalled as a winter garden, and there is no place so well furnished with evergreen trees

and shrubs of the most choice kinds. Here you see the rarest Coniferæ, viz., *Abies nobilis*, *grandis*, *Douglasi*; *Araucarias*, *Deodars*; all the most valuable *Pinuses*, Irish Yews, and Junipers, and in fact every novelty among Coniferous plants, and evergreens generally, by hundreds and even thousands, forming, by their tasteful arrangement in masses, avenues, &c., a grand and striking effect, which must be seen to be fully appreciated, or even comprehended.

Elvaston, as well as the adjoining country, is flat and low (being only a few feet above the level of the Derwent, which flows close by), and to produce the necessary undulations of surface for an effective landscape, high mounds have here and there been thrown up with corresponding hollows; these have been very tastefully planted out, and give the idea of broken ground most effectually. I may here remind the readers of the *Florist* that the whole of the grounds surrounding the mansion were formed and planted during the lifetime of the late Earl of Harrington, whose great taste and liberality, in conjunction with his gardener, Mr. Barron's, indomitable perseverance and skill, aided by an artistic mind, have achieved results in planting and arrangement without a parallel in Britain, and which elicit the admiration of every one capable of estimating a work of art carried out with living subjects.

In addition to gardens planted in every style, including one in the Moorish or Arabesque, very correctly carried out, are avenues planted with nearly every tree adapted for the purpose—pendulous, upright, and intermediate—and in colour from the dark green of the upright Yew to the silvery gray of the Irish Juniper. Mr. Barron has, besides, introduced compound colours; and gold and silver-striped Yews and Hollies are planted in large numbers, and the effect, when contrasted with dark-leaved plants, is unique and beautiful in the extreme; in short, the artistic handling of the various shades and tints which the foliage of trees present, in making up landscape scenery, has been most cleverly carried out at Elvaston.

There is a beautiful piece of water, which is belted with some of the best arranged rockery I have ever seen; this on an extensive scale, and although the straight lines of trees may be considered formal by some, the rockery is nature itself, so admirably is it arranged and planted with appropriate trees and shrubs.

Not content with planting "*en masse*" such rare things as the nurseries and home propagation could furnish, large trees, including Yews, Cedars of Lebanon, Spruce Firs, &c., of considerable age and size have been removed from one part of the grounds to others when required for particular purposes, and many have been brought from considerable distances to give a character to certain spots. All are growing admirably, and are really *wonders*, giving the place an appearance of age, which could not otherwise have been effected under a number of years. One thing in particular struck me—an Ash tree grafted some 40 or 50 feet high with the weeping variety; in a few years this will be a striking object. The stem is perfectly straight, and the top growing vigorously.

The past winter has made sad havoc with many of the choice kinds

of Coniferæ. The following are those which have suffered most:—*Cupressus torulosa*, dead; *Araucarias*, from 1 to 20 feet high, majority dead, others much browned; *Deodars*, mostly as leafless as the Larch; *Pinus Sabiniana* and Upright Cypress, much injured; *Laurustinus*, killed to the ground; *Arbutus* much cut, and common shrubs generally the same. *Abies Douglasi* has not been injured, but the trees do not look so healthy as at Dropmore, where the Douglas Fir grows rapidly, though on a much inferior soil to that at Elvaston. The famed *Araucaria* at Elvaston has been much browned, and is not to be compared with the tree* at Dropmore, which is a much finer specimen. In reference to the effect of the winter on the above, I may remark that at Dropmore neither the *Deodars* nor *Araucarias* have a leaf injured. *Pinus patula* (generally reputed a tender one) is a little browned, as is the *Arbutus*, but nothing is killed, as far as can be seen at present. Dropmore is situate much higher than Elvaston; and does this exemption from injury of the Dropmore trees, as compared with the same kinds at Elvaston, during the last winter, arise from this cause? Can the injury done at Elvaston be owing to the wet and sunless summer of last year, which did not mature the ripening of the wood, in addition to their growing in a low flat situation? Dropmore, being very high, has more cold winds during the summer months, and most likely the wood is better ripened. P. F.

[Our readers will find our views on the above question in a preceding page, written before our correspondent's letter reached us; they are the result of our own observation, confirmed by the experience of others, of which the above communication from our valued correspondent affords evidence. No doubt exists in our minds that the different powers of withstanding the effects of severe frost between the plants of Elvaston and Dropmore arises from the difference of situation; Elvaston is low, flat, and humid, with a rich soil, all tending to promote a quick succulent growth, which the late wet season has no doubt accelerated; while Dropmore, being an elevated situation, with a gravelly subsoil, has a drier soil and air, and hence the comparative hardness of the trees named by our correspondent.]

NOTES ON VEGETABLES.

Snow's Winter Broccoli. This surpasses any we know for its useful properties; coming in in November, it will last, with management, till February, the quality approaching very near to a Cauliflower. Two sowings should be made for a succession, one about the end of April, and the other about the middle of May. If frost is at all apprehended, take up the plants and lay them in by the heels in a dry place; cover them in frosty weather with clean dry straw, they will in this form keep good a long time, uncovering them to prevent their damping when the weather is mild.

* This tree is figured in the January Number of the *Florist*.

Cole's Crystal Celery is a valuable acquisition to white Celeries: not too large, but solid, compact, and of excellent flavour, either raw or cooked.

New Dwarf Green of the Horticultural Society. A very dwarf green variety, equally valuable for early or late use; we prefer it for the latter purpose. Its dwarf habit makes protecting it in severe weather an easy matter; and a large quantity can be grown on a comparatively small space of ground.

HINTS ON PREPARING BORDERS FOR BEDDING OUT PLANTS.

To grow in perfection the different plants now usually found in well-arranged flower gardens requires a considerable acquaintance with the habits of the various things grown; for, differing as they do in habit and tendency to bloom when transferred to the free soil of the flower garden, it must be obvious that a due preparation of soil is necessary, in order to ensure a fine display of bloom at the proper season; these hints are therefore intended as general guides in its preparation. The arrangement of plants for summer decoration should, if possible, be made the autumn previous, when the greater part of the plants intended to be grown are in bloom, and when the colour of their flowers and habits can be seen to best advantage. A plan of the beds should then be committed to paper, and the plants to occupy each bed written thereon. This will not only be a good guide as to the number required to be propagated, but will enable you, in the course of the spring, to prepare each bed with suitable compost, so that each plant may be accommodated, as near as possible, with a soil to grow in calculated for producing the greatest amount of flowers, by checking a too luxuriant growth in some cases, and stimulating weak growths in others. With the above, by way of preface, I will commence with the Pelargonium, of which in every class, scarlet, ordinary and fancy kinds, large numbers are each spring turned out. Among what I have termed ordinary or common Pelargoniums, certain kinds have been selected as constant bloomers, and as such valuable for the purpose; to have these in perfection, a poor and dry soil will, in most cases, grow them sufficiently strong for blooming freely. Most of the common kinds cultivated, to keep them in check, are plunged in their pots, but a very poor and shallow soil answers the same purpose; for if the soil be at all rich, nothing but luxuriant foliage will be the result. Fancy Geraniums are very pretty, when bedded; but the soil, as above, must be poor, and well drained, and they require some protection from very heavy rains. Scarlet and variegated Geraniums, which are always largely planted, require some management, to do them well. A good plan is to place a substratum of richer soil about six inches below the surface, which should be poor. They will, however, grow strong enough in this till somewhat exhausted by blooming (which will take place early in the poorest), by which time their roots will have reached the better soil below, which keeps them in vigour throughout the remainder of the

season. Even the different kinds of scarlets want treatment slightly varied; as a rule, the weaker ones require better soil than the robust varieties. Strong growing kinds of Verbenas, which may be represented by Defiance, should be planted in poor soil, moderately heavy; while Boule de Feu, Mons. Pasquin, and delicate growers, require a rich one. A little manure, or a richer soil placed below the surface, is the best way of keeping them up to the mark towards the close of the season. Salvias should have a deep rich border to keep them in good bloom through the season, and be liberally supplied with water in dry weather. Calceolarias like a portion of peat, or heathy mould, and some well-rotten cow-dung. An open soil rendered cool by the above mixtures, and attention to watering, will ensure a fine bloom of these favourites. The tall growing, or herbaceous Lobelias, should be well brought forward under glass, before venturing them out; these thrive best in decayed vegetable mould and sand. After planting, and particularly in dry weather, you may treat them as sub-aquatics, and they will bloom all the finer for it—these are most showy plants in the autumn. Those beautiful varieties of Lobelia Erinus, so different in habit from the above, require a light rich soil; but not too much damp, or they are apt to rot off. Petunias require a moderately firm soil, not over rich; when too light and open they damp off in wet weather. Pentstemons, Phloxes, and Dianthus, all delight in a moderately enriched soil, of moderate firmness. Mimuluses will thrive well in the compost prescribed for tall Lobelias. Plant Lantanas in poor and shallow borders, where they will bloom abundantly, and are very pretty plants. Plumbago capensis I have seen bloom freely on very poor soils in a dry summer; there is scarcely a more charming plant than this, when covered with its beautiful spikes of light blue flowers. Roses cannot have too rich a soil, except the Teas, for which it should as well be warm and dry. Mesembryanthemums, a dry sunny exposure to have them in perfection; admirable for rockwork.

Heliotropes grow well almost anywhere, but are most prolific of bloom on dry soils, not over rich. Stocks, Asters, Marigolds, and other plants of this class, should have deep rich soil. Stocks delight in strong loam, if well worked previously. The new French Asters, which are really beautiful things, should be accommodated with a rich border, and plentifully supplied with water in dry weather.

If you think the above general hints of any use to the readers of the *Florist*, they are at your service.

J. G.

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. V.

X. ABIES DEODARA—THE INDIAN CEDAR.

WE this month present our readers with an engraving of the Deodar, or Sacred Indian Pine, taken from a specimen in the Dropmore Pinetum.

The Deodar derives its name from the Sanscrit, *Deva* or *Dewa*, a Deity; and *Dara*, a tree, from whence Roxburgh called it *Cedrus*

Deodara. This gigantic and beautiful tree is indigenous to the Himalayan Mountains, from elevations of 5,500 feet up to 12,000 feet



ABIES DEODARA.—Height 35 feet; girth, 3 feet from the ground, 4 feet.

above the sea; it is found principally in the Central and Western districts, from Nepal to Cashmere and Afghanistan. But although the Deodar grows well at the lower elevations named above, on the sides of the Himalayas, towards the plains of India it flourishes in the greatest luxuriance, and attains the largest size, in the interior, in the midst of the snowy mountains, and close to the line of perpetual snow.

Notwithstanding the length and severity of winter in the Deodar districts, the summers are very hot, the sun having great power, even at high elevations above the level of the sea; and consequently the Deodar wood gets ripened sufficiently to bear the severe frosts to which it is exposed for five or six months of Himalayan winter. We mention this fact, recorded by Sir Wm. Hooker, as worth remembering, for he afterwards states, on the authority of Dr. Hooker, that in the Eastern Himalayas, where the climate is exceedingly wet, not a single Deodar exists. Thus proving that a dry and warm climate, for a portion of the year at least, is necessary for its growth.

The Deodar is stated by Major Madden to be "indifferent to soil and substratum; flourishing equally among the clefts of the most scarped rocks, gneiss, quartz, limestone, granite, clay, and mica slate, as in the black vegetable mould of the brae or glen; provided always, the surface of the latter slopes to an angle to ensure thorough drainage." A condition, we may observe, essential to Coniferous trees generally, occupying similar sites.

The Deodar, in its native soil, forms a tree of great size and beauty; on the lofty ranges of the interior, forests of this tree exist, with trunks of from 15 to 20 feet in circumference, and the dimensions of several trees are given, with the trunks of 33 and 36 feet in circumference, at 4 ft. from the ground, and attaining the height of from 150 to 200 ft.

The tree is now common to pleasure grounds and park scenery, having been introduced in 1818. In its young stage it forms a very graceful tree, owing to its weeping habit, and the light glaucous hue of its foliage, which in healthy specimens is very dense. As an ornamental tree for the park, lawn, or avenue, it is well suited, and in all situations it is much and deservedly admired. Our engraving gives a very faithful representation of the general character of the tree after being planted some years.

From time immemorial the Deodar (as its name implies) has been held sacred by the Hindoos; and as such it is carefully preserved round their temples; it has likewise been employed by them extensively in constructing their public buildings, bridges, &c., for hundreds of years, as well as for boat building—facts which sufficiently indicate its value as a timber tree, and as such it stands highest in the estimation of the native builders. The wood is fragrant, and takes a fine polish, resists the attacks of insects (so injurious to timber in India); and, abounding in resin, it effectually resists atmospheric changes. In fact, in whatever way we look at it, it must be admitted to be a timber of great value and durability.

Her Majesty's Commissioners of Woods and Forests have lately imported large quantities of Deodar seed, with the view of sowing it in the Royal forests for naval purposes. On this point we can only

observe, that the result seems to us very doubtful. That the New Forest will grow Deodar timber equal to the Himalayan is a question which time only can prove. We think that the evidence which the last winter affords is against such an inference. Hundreds of young Deodars are now denuded of their leaves, and are at this time as naked as the Larch. This must materially check the progress of the tree (supposing the timber when fully grown to be equal to native wood, which we much doubt), and goes far to prove that our seasons are neither sufficiently dry nor hot enough at all times to ripen the wood of the Deodar sufficiently to resist a degree of cold which may prove a barrier to its successful cultivation as a timber tree in Britain.

The specimen figured was planted in 1835, and was then about 18 inches high; it is now 35 feet high, the circumference of the stem at three feet from the ground being four feet. There are taller plants at Dropmore than this one; one planted in 1831 would have been by this time nearly 50 feet high, but for an accident which occurred a few years ago, and broke several feet off the top.

XI. ABIES WEBBIANA.—THE PURPLE-CONED SILVER FIR.

Another noble Pine from the Himalayas, where it attains a great size, reaching upwards of 120 feet in height, with a trunk of corresponding dimensions; the leaves are from 1 to 2 inches in length, dark green on the upper surface, with a white stripe beneath; the cones are of a rich purple colour, bespangled with globules of transparent resin, which adds greatly to its appearance as an ornamental tree. A dye of beautiful violet colour is extracted from the young cones.

Webb's Silver Fir is found in great abundance in Bhotan, Sikkim, and other districts of the great Himalayan chain—rarely, however, below an elevation of 9,500 feet, but forming vast woods at 12,000 feet above the level of the sea. The timber was formerly reputed valuable and fragrant; but later experiments show it to be neither fragrant nor of much value for building purposes. It is, however, an imposing and striking tree, from its stiff mode of growth, and the beauty of its cones. In damp and exposed situations the young buds are subject to be injured by the frosts of autumn before they are fully ripened, or late in spring, after the young shoots start; this sometimes gives the tree a scrubby appearance. A dry situation is preferable for it, to insure moderate growth and mature wood, and it will thrive well on the outskirts of plantations, in cold situations, where it would be partially protected, until it had attained some age. At Dropmore the tree grows vigorously and produces its rich-looking purple cones in abundance.

THE LONDON NURSERIES.

AMONGST the leading "Sights of London," the principal nurseries open to many a source of great attraction; and those who have a fondness for plants and their culture seldom visit the metropolis without seeing one or more of these vast establishments. If it were possible to ascertain

the amount of money spent annually in the purchase of plants in Britain alone, we believe that an astonishing array of figures would be posted before us, and to meet this demand large sums of money are invested in the collection of stock by the nurserymen we shall have occasion to allude to; and the risk they encounter in doing so is a thought seldom entertained by others than themselves. Such is the fragile nature of some of the valuable and tender plants, that, notwithstanding every precaution, they are sometimes lost. Believing that at this appropriate season, information respecting many of the new and rare occupants of the principal London Nurseries would be acceptable to our readers, we started off on a trip of discovery in search of the requisite information, and we are pleased to add—not unnecessarily.

PINE APPLE PLACE, EDGEWARE ROAD,

First claimed our attention. This nursery is well known, having been established by the late Mr. Henderson, and is now in the possession of Messrs. A. Henderson and Co. The collection of plants here is both varied and extensive, this establishment being particularly celebrated for large collections of stove and greenhouse plants. Passing through the various and numerous houses, we saw a very charming early blooming plant, *Elæocarpus dentatus*, a half greenhouse, half stove plant, with fringed small white pendulous flowers, on stiff, short footstalks. This is a most serviceable and ornamental plant, admirably adapted to small collections, as it blooms freely even in small 60 pots. In the stove we also noticed a well-grown specimen of the showy *Phrynium sanguineum* (or *Maranta sanguinea*), which throws its bright pink bracts prominently above the foliage; and the ornamental *Aphelandra squarrosa citrina*, the leaves of which are strongly marked with large white veins, and the flowers of which are yellow and produced in spikes, the plants blooming freely in a dwarf state. We saw here *Begonia zanthina* in abundance, and it certainly is a very ornamental plant, with large deep reddish green leaves, the under surface being strongly marked with deep red ribs or segments; it produces its yellow flowers in the autumn. Like *Begonia cinnabarina*, it dies down in winter. *Lagerstrœmia indica rosea* is a greenhouse shrub, with small rose-coloured flowers, the plant blooming in a small state, being in this respect very unlike the other species. We observed in one of the houses, *Tropæolum incisum*, a new hybrid between *T. canariense* and *T. Lobbianum*, more curious than handsome, and by no means so interesting and valuable as *T. Lillie Schmidt* and a few others—only it has this advantage, it continues blooming for a much longer period, we are told. It flowers in the way of *T. Moritzianum*, colour orange yellow, with blotches at the base of each petal. The various species of the beautiful genus *Anæctochilus* are well managed here, and form a striking object in one of the stoves; and we were much pleased in observing a fine plant of *Lapageria rosea* planted out in the Heath-house and growing vigorously. There is every reason to believe this will prove at least a valuable greenhouse creeper, if not perfectly hardy. We in particular noticed in the specimen house the new *Gastrolobium ovalifolium*, with large

woolly foliage, and a profusion of large orange flowers from the axils of the leaves. It is altogether a handsome plant. In the same house was a small plant of *Cheiranthra linearis*, a graceful growing slender plant, with blue flowers; and several neat specimens of the leading greenhouse plants. *Erica Victoria* (or *Zingerella*) is one of the finest Heaths we have ever seen, and is a variety of the "Aristata" section, with rich glossy deep scarlet flowers. A scarce plant is *Bossirea lenticulata*, of a drooping habit, with a profusion of sulphur-yellow flowers; and in the same house, plants of *Epacris Kinghorni* were clothed with flowers of a delicate pale pink colour, shading to white at the tip, and is a very free bloomer. *Geranium Kingsbury Pet* was also in bloom, and is a very pleasing variety of the horse-shoe leaf *Geranium*, with salmon-pink flowers. The double white Chinese Peach is here used for forcing in pots, and is of a clear white colour, and the flowers are large. It is a most desirable plant, not only for this purpose, but out-door decoration, as well. The state of the young greenhouse plants here is such as to satisfy the most fastidious purchaser, and no difficulty will be experienced in selecting well grown young plants of all the leading sorts, such as can easily be formed into specimens for exhibition. We next proceed to

MR. GLENDINNING'S NURSERY AT CHISWICK.

And on entering this establishment, which is one of the best conducted about London, a very fine specimen of the *Cedrus Deodara*, about 20 feet high, forms a conspicuous object, and, from its beauty, *must* tempt many a passer-by into becoming a purchaser. Conifers are largely grown here, both in pots and in the open ground, and we particularly noticed in pots very fine plants of *Cupressus funebris* and *Libocedrus chilensis*, both of which are in great quantities, and the graceful drooping *Dacrydium Franklini*, which has been found to be quite hardy in Yorkshire this winter. In one of the houses we also noticed *Cupressus Corneyana*, and *Chamæcyprus glauca*, both of which give promise of becoming very handsome plants, and probably hardy. In the open ground, *Cupressus Lambertiana* is much injured; so also is *Cupressus torulosa*. *Pinus insignis* is very much browned, and both *Taxodium sempervirens* and *Cryptomeria japonica* have been severely browned by the frost, but are now breaking freely. With regard to the two *Cupressus*, they no doubt continued growing until a late period last year, owing to the wet season that prevailed, and did not ripen their wood soon enough to withstand the inclement winter we have just experienced. A good collection of stove and greenhouse plants is cultivated here, amongst which we saw *Gastrolobium Drummondii*, with spikes of deep orange red flowers, and which will be a desirable addition to any collection; a well-grown plant of *Genethylis tulipifera*; a new *Ceanothus* from California, that has not yet flowered; the handsome *Gesnera Donkelaari* (figured in the *Florist* for November, 1853); and a very pretty-leaved *Passiflora*, a distinct species from Mexico, which has not yet flowered here, and appears to be half shrubby, and the leaves spotted with silver; also a new red *Passiflora* from Australia, which

has not yet flowered. A large general collection of plants is grown here, including many rare Conifers. Not far from here is

LEE'S NURSERY, AT HAMMERSMITH.

This is an old-established nursery, known to many of the oldest members of the gardening community as Lee and Kennedy's nursery, and it is still owned and conducted by Messrs. J. and C. Lee. This is one of the monster plant establishments found about London, where a very large general collection of plants is cultivated. Roses are grown to a great extent; so also are evergreen shrubs, fruit-trees, and ornamental trees and shrubs. One of the first objects that met our attention on entering was a well-known plant of the yellow Banksian Rose against the south wall of one of the stoves. This variety flowers best when the growth is not too vigorous; and it requires to be pruned very sparingly, as it flowers from the old wood. Here again we observed in one of the stoves plants in full flower of the attractive *Phrynium sanguineum*; *Pandanus variegatus*, a showy decorative stove plant; and the stove climber, *Hexacentris mysorensis*. The Camellia house is occupied with large plants of the best^e sorts, the majority of which had gone out of bloom; but it was evident there had been a superb display, and the plants are in luxuriant health. Of the varieties still in bloom we noticed *Alcemene*, a very pretty flower, of a light pink colour, the edges of each petal being feathered with carmine; *Carswelliana*, pale red, with a white stripe down the centre of each petal, a very handsome variety; and *Landrethi*, a large pink variety. Variegated Geraniums abound here, including *Golden Chain*, a very striking variety; *Silver King*, *Mountain of Light*, and *Kinghorn's Attraction*, a new variety, with distinct, strongly-marked leaves, and not to be confounded with *Gaines's Attraction*, which we believe to be very inferior to it. Passing through the numerous houses in this nursery, we noticed *Epacris delicata*, pale blush; *E. Kinghorni*, and *E. miniata grandiflora*, rich scarlet, with a clear white tip, large flower; these varieties should be in every collection. In the specimen house we saw fine plants in full flower of *Eriostemon myoporoides*, *buxifolium*, *scabrum*, *intermedium*, and *neriifolium*; and what charming spring blooming plants they are! Also a very fine specimen of the *Genethylis tulipifera*; and we sincerely hope some one will succeed in blooming this plant shortly, as Mr. Drummond's description of it, as he found it in the Swan River district, is sufficient to raise one's curiosity; and with such a plant as the Messrs. Lee have, it should soon be gratified. The question is, what treatment should it now have to throw it into a blooming state? We are of opinion that it will now be necessary to complete its growth as early as possible, and to use but a moderate supply of water, so that the wood may be properly matured early; there would then be a favourable chance of blooming it next spring. Near it were plants of the new *Berberries nepalensis*, *Ehrenbergi*, and *pallida*, and in various parts of the ground we noticed the new hardy Clematises, *Sophia*, *monstrosa*, and *Helena*; *Stauntonia latifolia*, said to be a hardy creeper, but it was killed with us in a cold

pit this winter; and a well bloomed specimen plant of *Aerophyllum venosum*, to the culture of which intending exhibitors should turn their attention. Our next object was to reach

MR. JAMES VEITCH'S, EXOTIC NURSERY, CHELSEA.

This nursery was established by Mr. Knight, of the late firm of "Knight and Perry," under whose management it obtained a great amount of celebrity, and, on the retirement of those gentlemen, it passed into the hands of Mr. James Veitch, jun., of Exeter. New and rare plants are much cultivated here. In one house was a large specimen of the extraordinary *Lilium giganteum*, in appearance so much unlike a Lily, the flowers of which are white, with a pale pink stripe in each division of the flower; blooming plants of the charming *Rhododendron jasminiflorum*, with pure white fragrant flowers; in form very much resembling *Stephanotis floribunda*. *Philesia buxifolia*, which was figured and described in the *Florist* for March, 1854; and *Acacia Drummondii*, a very distinct and beautiful free-blooming species, of dwarf habit. In one of the stoves was *Begonia Prestoniensis* (figured in the *Florist* for June, 1853), producing freely its deep orange flowers. *Franciscea calycina* (sy. *F. confertiflora*), a very fine species, with large rich lavender-purple blossoms; a large specimen of *Medimilla magnifica*, loaded with clusters of purple buds, and a fine specimen of *Cissus discolor*, with its handsome variegated velvety foliage. *Gesnera Donkelaari* is just about to flower here, and a pretty very dwarf growing and distinct *Begonia umbellifera* was producing its bright pink flowers. *Impatiens Jerdoniae* was growing vigorously here. This is one of the many interesting plants sent out by Messrs. Veitch, and was figured in the *Florist* for January, 1854. The climbing *Hexacentris mysorensis* was growing vigorously, both in stove and greenhouse, and seems adapted to either temperature. *Coleus Blumei* (sy. *Plectranthus concolor picta*), a variegated plant for stove and greenhouse decoration, each leaf having a large chocolate-coloured blotch surrounded with light green, was producing spikes of pale lavender flowers. In various places we saw respectively *Eugenia Ugni* (or *Myrtus Ugni*), a new evergreen hardy shrub of close, stiff habit, with small Box-like foliage, and said to have a strong perfume like Lily of the Valley; *Azalea Chelsoni*, a very handsome well-formed bright orange-scarlet flower; *Berberis nepalensis*, about five feet high, with its striking foliage; and *Torreya Humboldtii*, which appears to be closely allied to the *Taxodiums*, and has a pendulous graceful habit. Both of these last-named plants, however, are not quite hardy. The aquarium here is an object of great interest. Palms, Ferns, and water plants abound. In the centre of the immense tank is a young plant of the *Victoria Regina*, surrounded with *Nymphæas* and other suitable attendants. In the same house is a rich collection of Pitcher-plants, for which this establishment is celebrated. In the Orchid house we noticed in flower *Vanda suavis*, *Saccolabium miniatum*, *Chysis bractescens*, *Dendrobium aggregatum*, *Dendrobium albo-sanguineum*, and *D. chrysotoxum*. Many of the rarest Coniferous plants are grown here, amongst them being *Saxe-Gothæa conspicua*, *Fitz-Roya patagonica*, *Libocedrus chilensis*, and *Cepholotaxus Fortuni*, all in great plenty, and

young plants of the marvellous *Wellingtonia gigantea*. We next visited the old established nursery formerly known as

WHITLEY AND OSBORN'S, FULHAM,

But now in possession of Messrs. Osborn and Sons; and this establishment claims especial notice, as we believe it is the oldest nursery about London, having been established more than 150 years, and has always been celebrated for the large collections of hardy ornamental trees and shrubs; herbaceous, Alpine, and bulbous plants; fruit trees, &c., cultivated here. Many rare hardy plants are to be met with here, that seldom meet one's attention elsewhere. In addition, greenhouse and stove plants are now grown rather extensively and well, and our attention was directed to a new *Oxylobium Osborni*, not yet sent out, a profuse blooming plant, with deep orange and yellow flowers, and *Lysimachia Leschenaultia*, a greenhouse herbaceous plant, probably hardy, and blooms freely, producing dense heads of lively pink flowers, and growing from 1 foot to 1½ foot in height. *Franciscea eximia*, a noble specimen, was blooming freely in one of the stoves, and in one of the greenhouses was a fine plant of *Berberis Leschenaultia*, something like japonica, but with a broader leaf, and more coriaceous. This firm were amongst the subscribers to the Oregon expedition, sent from Scotland, with Mr. Jeffreys as the collector, and they have succeeded in raising some of the *Pinuses* forming part of the collection, from which we hope on another occasion to be able to record some valuable introductions.

THE WELLINGTON ROAD NURSERY, ST. JOHN'S WOOD,

Is in the immediate vicinity of the Regent's Park, and but a short distance from Pine Apple Place. Messrs. E. G. Henderson and Son, the proprietors of this large establishment, have within a few years past brought together an immense collection of plants, and "novelties and new things" are here to be found in abundance. Passing through their various houses—and there is a large extent of glass here—we saw many beautiful Azaleas now in bloom, the most noticeable of which are:—*Magnifica* (Ambrose's), white, occasionally striped with pale red, and blooming freely; *Illustrata alba*, large white, with small violet stripes, good form and remarkable substance; *Narcissiflora*, a free blooming double white variety; *Alexandrina*, a well formed pale scarlet, heavily spotted in the upper part of the flower; *Juliana*, orange-scarlet, very smooth, and fine form; *Conqueror* (sy. *Lateritia formosa*), pale salmon red with violet spots at top, smooth and large, fine form; *Stanleyana*, pale carmine, exquisite form and good substance, one of the best varieties in cultivation; *Iveryana*, one of the best formed whites; *Beauté de l'Europe*, pale blush with pink stripes; *Perryana*, rich rosy scarlet, fine form; and the truly beautiful species, *A. sinensis*, true, with its large deep yellow flowers, the upper part shaded with orange. There is, unfortunately, considerable difficulty in obtaining this species true. Here the yellow *Rhododendrons*, or *Aureum section*, are largely grown, the best of which is "*Aureum superbum*." Two other fine varieties attracted our attention: these are *R. aureum*

Burlingtoni, clear lemon, with dark orange spots in the upper part of the flower; and *R. aureum Sabinianum*, pale buff, with deep orange spots in the upper part of the flower. *Rhododendron Bianca* is a hybrid raised from *Aureum*, and one of the most beautiful we have seen; in colour clear white, with a compact close truss of well formed flowers, blooming freely; and in the same house was a large plant of an improved variety of *Rhododendron Gibsoni* (which is a very distinct species), with large white waxy flowers, from 3 to 4 inches wide, and very showy. A new and handsome *Camellia*, named *Jenny Lind*, the stock of which the Messrs. Henderson have purchased from an American gentleman, has been blooming here. In colour it is delicate white, with a carmine blotch at the edge of each petal. It is not yet sent out. *Cyclamens* are also extensively grown here, including many fine varieties of *C. Persicum*; and this firm has just purchased a pleasing variety named *C. Atkinsi*, which will be issued during the current year. In the stove we saw a strong growing and singular Gesneraceous plant, *Sciadocalyx Warszewiczii*, with bright scarlet short tube-shaped flowers, surmounted with a greenish yellow tip suffused with crimson spots; a new species of *Torrenia* that has not yet flowered; *Cossingia borbonica*, a handsome decorative plant, with long narrow foliage and strongly marked yellow midrib; the handsome *Bertolonias*—*maculata* and *marmorea*, the foliage of both being very rich; but it is evident they delight in a moist heat, where the markings of the leaves can be fully developed; *Echites Pelleri*, a small growing species adapted to pot culture, having clusters of well formed clear canary yellow flowers, blooming freely; and the new *Echites elegantissima*, somewhat resembling *E. crassinoda* in appearance, but distinct from it, with leaves broader and downy, and the flowers larger and of a deeper carmine colour. In one stove we saw a large collection of Ferns, and particularly admired two very distinct species of *Lycopods*, the names of which have not been ascertained; *Lycopodium strictum* is an erect and distinct species, whilst *Lycopodium Pœppigianum* is a very singular prostrate kind; *Lycopodium flexuosum* is a handsome drooping variety of *L. stoloniferum*, to which class also belong *L. robustum* and *L. microphyllum*, both of which are distinct and handsome. When *Lycopodium cæsius arboreum* was introduced, some thought it to be the *L. Wildenovi*, and under that name it was to some extent distributed; but here the true *L. Wildenovi*, a very distinct species, from the north of China, was pointed out to us. In the same stove we noticed *Nephrolepis davalloides*, a very distinct and novel species; *Cassebeera farinosa*, the under part of the leaves being beautifully silvered; *Daria diversifolia*, with handsomely varied foliage; and *Gomphlebium subariculatum*, a stove Fern producing immense fronds, 6 feet long. This is a superb species, and should be suspended where practicable, as it has a drooping tendency. Many new *Gloxinias* will flower here shortly; also the new *Achimenes* *Sir Treherne Thomas*, rich carmine, and *A. cherita*, a distinct species, with light blue campanulate flowers. A small plant of *Skimmia japonica* was just losing its fragrant white flowers, and producing berries freely. In various parts of the nursery we saw *Primula sinensis magnum bonum*; *Berberis Beali*, a very handsome and distinct

evergreen species; a new double *Hydrangea hortensis*; *Embothrium lanceolatum*, which is said to be a hardy shrub, and in the young state looking very much like *Franciscea acuminata*, but as the leaves grow older they become deeply lobed: a new Bourbon Rose, *Gloire de Dijon*, which Mr. Henderson stated to be a yellow *Souvenir de Malmaison*, which is quite sufficient to make us impatiently curious to see it; *Pinelea Danielsiana*, a continental introduction, said to have flowers like *P. spectabilis*, with the colour of *P. Hendersoni* (we hope our continental friends have told the truth); *Berberis Ehrenbergi*, in bloom, a very distinct species, throwing out long loose drooping racemes of pale yellow flowers; *Ilex cornuta*, quite hardy and very distinct; *Hibbertia Rudi*, a very dwarf growing greenhouse plant, of small habit, with small bright yellow flowers; *Pernettya candida*, a hardy shrub, with not only white flowers but white berries we are told, and two new *Eriostemons*—*scabrum latifolium* (or *linifolium*), a robust variety of *E. scabrum*, and *pulchellum*, which is best described as a variety between *E. buxifolium* and *E. scabrum*. Both will make very good exhibition plants. Tree Carnations are grown extensively here, and these plants are now becoming popular, not as florists' flowers, but as winter blooming plants for the conservatory. The admirers of *Bromeliaceæ* will here find an extensive collection. Leaving this establishment, a pleasant walk by Primrose Hill leads to the Camden Town station of the Junction Railway, and in about ten minutes the Hackney station is reached, thence it is but a short walk to

LOW'S NURSERY, CLAPTON,

An extensive and old-established nursery, enjoying great popularity in the commercial world, and probably engaged in a heavier foreign trade than any other. The greatest novelty here is a collection of about ten species of gigantic Tree Ferns, received from Valparaiso through Mr. Bridges, the botanical collector; the most remarkable of these is *Thysopteris elegans*, the trunk of which measures nearly 3 feet in circumference, and in its native country produces fronds 15 feet in length. We understand these Tree Ferns are exclusively in the possession of Messrs. Low & Co. It is at present impossible to say what appearance they will wear; but in a lofty and spacious house, with a suitable temperature, there is every reason to believe that they will be fitting companions for the noble Palms and other tropical trees, such as we meet with at Kew and other gardens. In the stove we saw several healthy plants of the Nutmeg and Mangosteen, and a handsome new variegated *Aphelandra Leopoldi*, which is very distinct from *A. squarrosa citrina*, the midrib of the latter being bright yellow, extending at regular distances about half-way towards the edge of the leaf; whilst in *A. Leopoldi* the midrib is green, with distinct clear yellow stripes extending at regular distances from the midrib to nearly the edge of the leaf. *Ericas* and *Epacrises* are largely grown here. Among the latter we saw a pretty variety named *Alba odorata*, the flowers of which are clear white, small, thickly set upon the stalk, and very fragrant. In passing through the houses we noticed a blooming plant of *Abelia uniflora*, a very pretty free-flowering greenhouse shrub,

with pale lilac campanulate flowers, and *Lamelia aromatica*, a greenhouse plant from Chili, the leaves of which have a strong aromatic fragrance; *Eugenia Ugni* in flower, with small wax-like pale blush flowers, partially enveloping the bright pink stamens; *Boronia Drummondii*, a charming species, with bright pink flowers; and various other new plants which we had before noticed elsewhere. Young Coniferous plants are grown largely here. In a long range of frames several thousand seeds of *Araucaria imbricata* are planted, and we noticed a large stock of *Pinus Sabiniana*, one of the handsomest of the race; also a new species of *Taxodium* from the Caucasus, which is believed to be quite hardy; and a large stock of young plants of the scarce and hardy *Abies Wittmaniana* from the Crimea and Black Sea. Among some seedling Conifers was one that arrested our attention, it having been raised from seed received from California, and in appearance is something between a *Cephalotaxus* and a *Torreya*. It promises to be handsome, but at present its identity has not been established. A good stock of *Lapageria* is to be seen here, and *Pentstemon purpureum hybridum* was pointed out to us as an excellent variety raised from *P. gentianoides*, with purple flowers. In this nursery a large general collection of plants is grown, and it afforded us more than ordinary gratification to see Mr. Low again able to attend to business, and recovering from his recent severe illness. We left this establishment and wended our way to

FRASER'S NURSERY, LEA BRIDGE,

Which is about a mile and a half from Clapton, and renowned for the culture of young specimen plants, many of which very frequently occupy prominent positions at our great exhibitions, many of the monster specimens now about to be offered for sale at Ealing Park having been first formed by the Messrs. Fraser. Here we found fine examples of Indian Azaleas, *Ericas*, one of the finest sorts being *Hartnelli Superba*, a marked improvement on *Hartnelli*, and a freer grower; *Pimelea spectabilis*, *Aphelexis* of sorts, *Eriostemon intermedium* and *E. scabrum*, *Boronia triphylla*, &c. &c. The show house was very gay, and the Azaleas particularly fine: amongst these being *A. Frosti*, lively pale pink, good form; *A. Aurora*, pale salmon red, upper part of the flower densely spotted, good form. In this nursery a large collection of trees and shrubs, fruit trees, Roses, &c., is cultivated, whilst the numerous houses are filled with a general collection of plants, the specimens being particularly fine. Such freshness and health was perfectly invigorating, the remembrance of which, and a night in London, impelled us to a region beyond the influence of London smoke, and we again visited a congenial spot known as

TURNER'S NURSERY, SLOUGH,

About which a few words may be written before we wipe our pen. Here, as our readers are aware, florists' flowers are grown very extensively, and many of them are now in a great state of forwardness. The *Pelargoniums* for the May exhibitions have now to be retarded, when treatment the reverse of this is generally needed. We found the collection of *Auriculas* at their best, and very fine they are this season,

with large trusses on short flower stems. This is a flower now but little grown in or near London, but from its great beauty we are surprised that it is not more generally cultivated. The prevailing opinion is that it is difficult to manage, but Mr. Turner says no; however, be that as it may, the effect of a fine collection, when well grown and bloomed, is such as but few are aware of. Several promising seedlings were just open, while the old, but favourite, varieties were Ringleader, Ne Plus Ultra, Duke of Cambridge, Unique, Lovely Ann, Glory, Richard Cobden, Colonel Taylor, Stapleford Hero, Apollo, Cheetham's Lancashire Hero, Duke of Wellington, Lady Jane Grey, Matilda, Ploughboy, Bolivar, Fair Flora, Champion, Privateer, Complete, Countess of Wilton, Catharina, &c. A warm spring is known to be favourable to Ringleader, and it is conspicuously fine this season, nearly rivalling the famed Lancashire Hero of the same class. Polyanthuses were past their prime, but had been good. Pansies, of which a large collection is grown, both in pots and the open ground, were as gay as they are generally seen in the middle of May; and as they had received proper attention, the blooms were large and clean. The new varieties deserving mention are—Duchess of Sutherland, a white ground flower, top petals and margin rich deep purple, the two colours being very clear and distinct, with large open shield, a variety that will become a favourite; Memnon, a dark self; and the following yellow-ground varieties: Lord Palmerston, Comet, Satisfaction, and Lord John Russell. Of old varieties, we thought the following the best in their respective classes—Monarch, Royal Standard, Sir John Cathcart, Royal White, Emperor, Ophir, Marchioness of Bath, Royal Visit, Duke of Perth, Miss Talbot, and Charles Turner; but there were many other fine flowers that deserve honourable mention. Cinerarias are grown extensively, the specimens being the best plants we have seen—dwarf and vigorous, with large and well coloured flowers; but the season for them will be brief, owing to the intense sunheat we have experienced. Tulips will be unusually early, and the long bed of 180 rows is so clean and healthy that not a spot is observable on the foliage, and they promise to be exceedingly fine. Those who are fond of Carnations and Picotees should visit this establishment in July, to see them blooming in perfection; but the "forest" of plants, in fine health, grown here will interest the amateur at any time. The Pelargoniums for May, June, and July are all large, healthy specimens, five houses being devoted to the culture of this family; and it is a matter for surprise to many at seeing such remarkable specimens in 8-inch pots; on a plant of Mochanna we noticed nearly 200 trusses of bloom open and opening. The fancy Geraniums are even more forward than the others, large plants of Hero of Surrey, Gipsy Queen, Lady Hume Campbell, Caliban, Formosissimum, &c. &c., being in good bloom on the 20th of April. In addition to full collections of florists' flowers, a general collection of plants, trees, shrubs, &c., is cultivated here, and order and cleanliness are remarkably apparent in every department.

For the present we leave this subject, with the intention of resuming it at a later period of the year. In the mean time we recommend all engaged in gardening pursuits to closely inspect the London nurseries and gain from them all the information they can.

DESCRIPTIVE LIST OF FRUITS.

(Continued from p. 60).

NEW PEARS.

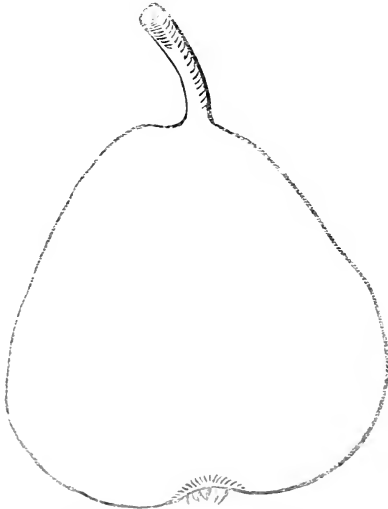
WITHIN the last few years numbers of new kinds of Pears have been introduced from the continent, with a favourable character appended to them; but how they are likely to suit our climate remains to be proved.

Several have fruited here during the last five years, but our frosty springs and cold shady summers have thrown difficulties in the way of fully proving the merits of these new varieties, and under such circumstances it is difficult to ascertain their true character. In many cases Pears require an acquaintance of two or three years before an opinion can with confidence be given, which is exemplified by the difference a few days will make in the time of gathering to the quality of the fruit, as well as the mode of treatment when stored; some varieties are excellent if gathered early, and worthless if allowed to hang too long on the tree, and with others quite the reverse; some kinds requiring the heat of a vinery, others a cool place in the fruit room to have them in perfection.

The texture of Pears varies so much in different localities, according to soil and situation, that it would be difficult to lay down rules for gathering or storing any particular kind; this much I may venture to say, that all those kinds having a tendency to become *mealy* or a little coarse ought to be gathered before parting readily from the tree. On the other hand, any sort that will not *soften* properly should be gathered late, and stored and ripened in a warm place.

1. *Reine d'Hiver*.

Fruit below the middle size, varying in shape from roundish to obtuse

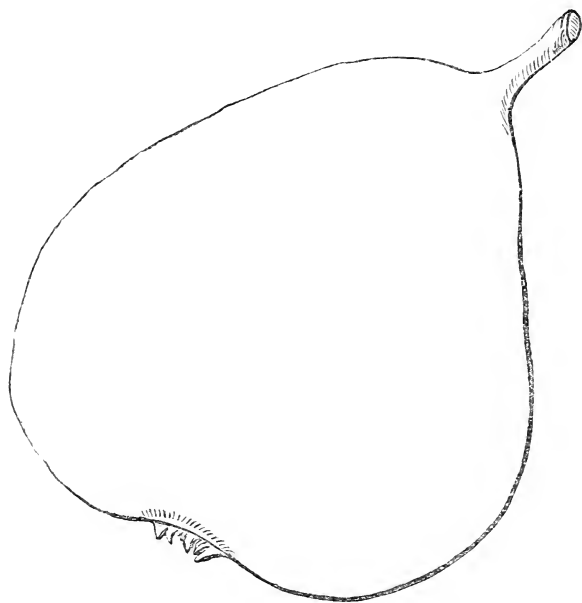


pyriform; skin light brown, dotted over with small specks of a darker

colour, and partially spread with russet; stalk three quarters of an inch long, rather stout, and set in a small even cavity; eye small, slightly sunk; calyx small and short; flesh yellowish white, fine grained, not exactly melting, but rich and juicy; in season from the beginning to the end of January, and often late in February. The trees are hardy and prolific, will thrive as standards, but are much improved by the advantages of a wall. This variety, being late, will doubtless form a useful Pear.

2. *Jalousie de Fontenay Vendee.*

The fruit is rather above the middle size; turbinate, or inclining to obtuse pyriform; skin smooth and even, of a yellowish green colour,



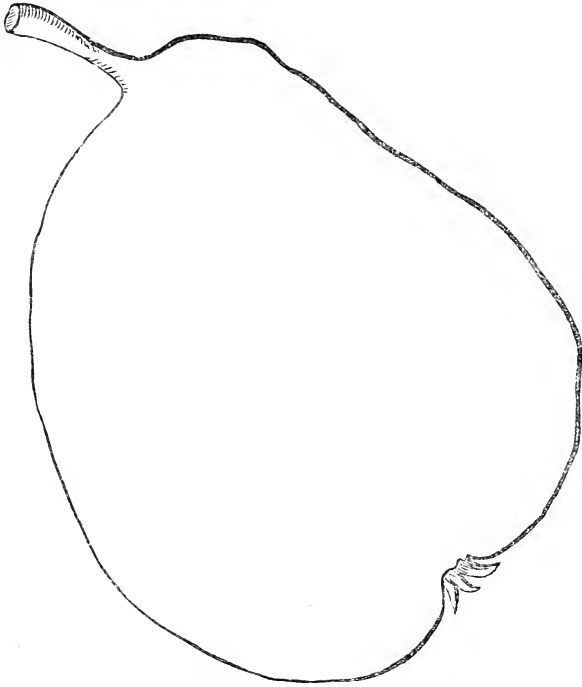
considerably spread with flakes and dots of russety brown, and tinged with red on the sunny side; eye small, set in a broad shallow basin, and has stiff short closed segments; stalk about an inch long, obliquely set, without cavity; flesh white, a little coarse, but sugary and juicy; ripe in October.

3. *Colmar d'Aremberg.*

Fruit large, varying considerably in shape, from oblong to obtuse pyriform, with a very uneven surface; in general appearance not unlike "Williams's Bon Chretien;" skin yellow, spread over with small brown dots, and mingled with cinnamon russet, with patches of the same near the stalk and crown; eye small, set in a deep narrow cavity, and furnished with thin reflexed calyx; stalk an inch long, stout, and inserted obliquely under a knobby protuberance; flesh yellowish white, rich, and sugary, with an agreeable musky flavour, like the "Winter Nelis;" ripening in November and December.

This Pear proves to be a hardy kind, and suitable for growing as a

standard in our climate; the trees are of strong robust habit, when



worked on the Pear stock, and at the same time very prolific. I find this Pear requires gathering early, otherwise it is apt to be a little coarse.

The hints at the beginning of this article are merely intended to warn those who may possess new or strange varieties not to be too hasty in condemning before subjecting the fruit to other than ordinary treatment.

Although this list appears under the head of *new Pears*, there are some of the varieties that have been in the trade for a long time, and yet are but little known. Should the present season prove favourable, the list will be extended, so far as circumstances will admit.

Frogmore.

J. POWELL.

THE CRYSTAL PALACE AT SYDENHAM.

WITHIN the last few days the directors of this extraordinary monument of national enterprise have issued an announcement that the Palace will be opened at the end of May, though no precise day has yet been fixed upon; we believe, however, that that event will take place on the 1st of June, should it be convenient to her Majesty to honour the ceremony with her presence on that day. By the programme of the directors, we perceive that they have so far followed the example of the commissioners

of the Exhibition of 1851 as to arrange three tariffs of admittance—the first four days of the week the admission fee being fixed at one shilling; on Friday, at half-a-crown; and Saturday, the fashionable day, at five shillings. The directors also propose to issue season tickets—those for the first season extending from the day of opening to the 30th April, 1855, a period of about 11 months; these tickets are to be charged 2*l.* 2*s.* each, with large reductions on family tickets. The ceremony of opening is expected to be very magnificent, graced, as there is no doubt it will be, by the presence of Her Majesty and His Royal Highness Prince Albert, to whose enlightened taste in promoting the Exhibition of 1851 the present building, devoted to the development of the resources of commerce and the fine arts, may justly be said to owe its being. Passengers by railway will be conveyed from London Bridge on the shilling days to and from the Palace, and furnished with a ticket of admission thereto, by first class carriage, for 2*s.* 6*d.*; second class, 2*s.*; and third class, 1*s.* 6*d.*,—being, in fact, only 6*d.* for a journey of something like 14 miles; whilst children under 12 years of age will be charged only half the above amounts.

Such of our readers who have not had an opportunity of witnessing the progress of the Palace and gardens will doubtless wish to be informed of the present position of the works, and what is likely to be presented to them on the day of opening: for, of course, no person expects that the Exhibition or Park can be complete in all their details until some time after that important event has taken place.

Descending, then, towards the gardens (for it is to these we mean to confine our remarks for the present), we come to the basement storey, or what has been styled Sir Joseph Paxton's tunnel, which is formed through the Norwood front of the building standing on so much higher ground than the garden front. This storey, which is an important addition to the exhibition, and one altogether absent from that in Hyde Park, is 1608 feet long, extending the whole length of the building, and nearly 30 feet wide. It is rapidly approaching to completion; and in this portion of the building, in addition to the apparatus and pipes for warming the building and supplying the basins of the fountains with water (there being upwards of 50 miles of piping laid down for these purposes), arrangements will be made for the exhibition of machinery, agricultural implements, heavy specimens of minerals, &c. The projecting wings of the palace, enclosing the ends of the terrace garden, are progressing rapidly. A great portion of the turf on the terrace garden has been laid down, and, notwithstanding the very dry weather for such work, the planting of the beds is now being actively proceeded with. Those at present finished have been filled chiefly with crimson and other Rhododendrons. Some of the beds are edged with *Erica carnea*. Many young specimen Deodars, varying from 8 to 12 feet in height, have been recently planted, both on the terrace and in the park. The walks in the terrace garden are nearly all rough gravelled, and the different basins for the fountains have been formed, and only wait for the latter to render this garden in a very advanced state.

The main central walk has been formed as far as the first great fountain in the park; and the channels for the waterfalls and cascades

on either side of it have been roughly blocked out. The site for the water which is to spread over this lower part of the park is also now apparent; great portions of the stonework along its margin being built.

By the opening day the whole of the ground on the west side of the central walk will be found in a very complete state. On a little knoll here is being erected a series of metal arches supported on pillars, and furnished with ornamental trellis work for hardy climbers. A belt of Roses has also been planted round the base of this temple, which, when fully, covered cannot fail to be a feature of much interest. The planting of the clumps on the Anerley Road side of the grounds with Rhododendrons and other shrubs is being proceeded with; a great extent of turfing has been done here, and no doubt the principal fountains will be completed.

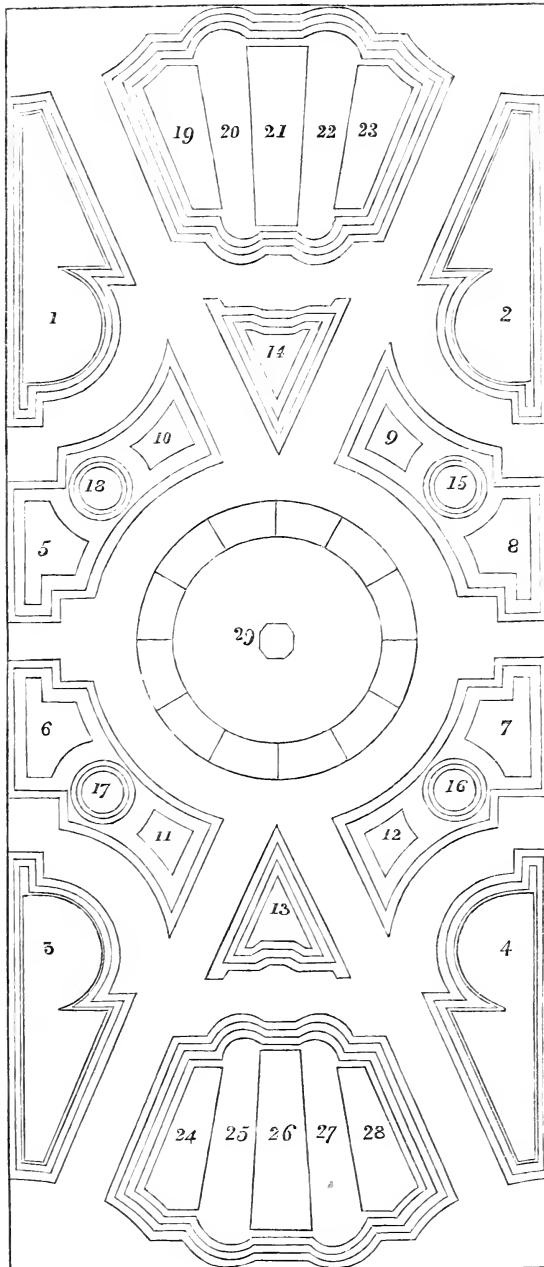
At the bottom of the grounds Mr. Hawkins is rapidly proceeding with the construction of his island on the secondary geological formation—being the chalky formation of the Weald of Sussex—so that the reptilean period of the earth's history will be efficiently illustrated by the opening day—the construction of the island on the tertiary formation being for a short time postponed. Mr. Hawkins has already on the ground upwards of 20 of his antediluvian monsters, the whole number to be placed upon the island now in the course of construction being 26. The two *Iguanodons* are already securely placed in their positions. The *Hyleosaurus*, or lizard of the Weald, as it has been termed, from its teeth so nearly resembling those of the Indian and American lizards, is also being rapidly proceeded with, and will take its place alongside of the *Iguanodon*, the *Ichthyosaurus*, or fish-formed lizard, the *Labyrinthodon*, or monster frog, the *Plesiosaurus*, a combination, as it were, of bird, beast, and fish, and the many other wonders of the secondary formation, which this gentleman has been so successful in embodying into form, under the able advice of Professor Owen, and other distinguished geologists and comparative anatomists. The banks of the new railway are being planted; and, altogether, both Palace and grounds give the fullest promise of being most attractive and magnificent.

PLAN OF PARTERRE, BOWOOD.

THE annexed plan of a flower garden, in the French style, is copied from a parterre at Bowood. The centre (29) is occupied by a fountain and basin. The beds have each a dressed stone edging, 3 inches wide, rising 4 inches from the ground, next to which is 3 inches of yellow gravel. Then an edging of box, 4 inches wide, kept very low, and then another strip of gravel. This edging, with the accompanying gravel, relieves stone bordering, and gives a finish to the parterre, especially when the beds are not occupied with plants.

The arrangement for the summer is as follows, keeping the whole as near one height as possible.

The space between the beds is Grass, on account of gravel walks surrounding it, which, had they been Grass, would have required the space between gravel instead, to neutralise the effect.



- | | | |
|--------------------------------------|---|--|
| 1. Dwarf Scarlet Geraniums. | 9. Calceolaria | 20. White Geranium or Verbena. |
| 2. Dwarf violet coloured Verbena. | 10. Sulphurea splendens. | 21. Scarlet Geranium, Verbena, or Crassula. |
| 3. Mons. Pasquin. | 11. Nemophila insignis. | 22. }
23. }
24. }
25. }
26. }
27. } |
| 4. }
5. }
6. }
7. }
8. } | 12. }
13. }
14. } | 28. Fountain and Basin. |
| 19. Purple Verbena, Andrew. | 15. Irish Yew in centre, edged with Mountain of Light Geranium. | |
| 23. }
24. }
26. } | | |

GOSSIP.

THE extreme dryness of the present spring, after a winter of unusual severity, has occasioned vegetables to be scarce in most parts of the country. Broccolies were more or less injured by frost or snow, which broke down their leaves; while autumn-sown vegetables, as Spinach, Lettuces, Cabbages, &c., are backward, from the dryness of the weather and cold nights. The land, however, has been worked under the most favourable conditions we ever remember; and we venture to assert that a larger quantity of garden seeds has been committed to the ground than in any former year. Not only have the country seedsmen had their stocks reduced to the lowest ebb, but we think the drain has extended to the great London houses, which, in many instances that have come under our notice, have been scarcely able to keep pace with country orders. This speaks well for the general prosperity of the country, and shows how much the comforts and uses of garden vegetables are being diffused through the great mass of the people; and we gladly hail this important fact as showing the increasing prosperity of the middle and lower classes.

One thing in respect to the hardiness of vegetables we wish to draw attention to. There are but few of our readers who may not have observed in their locality some particular kind of vegetable more capable of resisting frost than others, and we should be extremely obliged by their sending us notes of anything which may have come under their observation, which shall be duly recorded. It is only by evidence of this kind, collected from various and widely-spread sources, that anything like a correct opinion of the hardiness or otherwise of particular kinds of vegetables can be ascertained.

We find that people are everywhere complaining that seeds are bad this year. It is not, however, the seeds which are at fault, but the season, which has been unfavourable for their germination, and where judicious care has not been bestowed, doubtless many will never vegetate. Even, too, when up, the winds are very trying to them. We learn that Kestell's garden labels, fully described by us, page 102, 1852, are to be used in naming the plants, both under glass, and in the grounds at the Crystal Palace, Sydenham. These labels are both elegant and durable. A manufactory for producing them is about to be established, which will much lessen their cost. We expect to see them in general use in naming coniferous and other hardy ornamental plants and trees, for which they are especially adapted.

The National Tulip Exhibition is to be held in London this spring, in connection with the Royal Botanic Society's exhibition at the Regent's Park, on the 24th May. We have seen a list of the prizes, which we consider are very liberal in amount, as well as numerous, and have no doubt they will be well contested. Tulips, generally, are looking well this spring. There are in our opinion considerable improvements on former schedules. We quite approve of the regulation that the unsuccessful stands should not be broken

up, that the blooms may be shown in class. Purity is to be the principle on which the judges are to act; we hope to see this fully carried out. The judgment on this point last season was retrograding in our opinion. The day is rather late for the south growers, but is an excellent day for the northern and midland collections, whom we hope and expect to see strongly represented. It is of the greatest importance that the Tulip should on this occasion be shown in its greatest beauty and variety. Those gentlemen, intending exhibitors from the country, will be amply repaid for their journey with the extensive and varied exhibition that will be witnessed at the same time, not the least of which will be American plants under canvas.

The Royal Botanic Society has not yet (April 22d) issued its schedule of prizes for the current season. We have received many complaints on this subject, intending exhibitors being quite in the dark as to what subjects will be required, which is a great disadvantage to some growers. We hope this will not occur again.

It may be interesting to know that it is reported on good authority that Mr. James Veitch, of Chelsea has become the fortunate possessor of Mrs. Lawrence's magnificent collection of Orchids. We learn that they were purchased by him by private bargain. Of the fate of the other plants we hope to give some account next number.

CALENDAR FOR THE MONTH.

Annuals. Thin out those up, leaving three, four, or more in each patch, according to their size. Sow towards the end of the month for autumn blooming. Plant out Stocks, Asters, &c., sown under glass; rich soil suits them best.

Auriculas. As soon as out of bloom, remove them from the stage to a cool north border; standing them on a bed of coal ashes. A temporary frame-work should be erected, that lights may be placed over them in very wet weather, but leaving them open on all occasions at the sides. Watering should be strictly attended to, and they will make fine growth by the time they require re-potting, which should be done towards autumn.

Camellias are now busy forming wood; more heat will be requisite, which may be obtained by closing the house earlier in the day. Shade and syringe daily; plants not potted this spring, water with soot or clear manure water. When the young shoots are fully grown give less shade, by degrees, and more air, to aid the formation of bloom buds.

Carnations and Picotees. Look well and vigilantly after aphides, which must be kept under. We never saw these plants look more healthy than they do this season; a fine but early bloom is tolerably certain. The plants should now be permanently staked. The side shoots of strong plants will often start for bloom, these should be stopped, but not too early; or it will cause other layers to start for bloom.

Cinerarias. These are now on the decline, from the unusual bright-

ness of the weather this spring. The plants should now be placed in frames or pits facing north. Where seed is not required, the sooner they are cut down the better, that good early cuttings may be procured.

Cold Frames. Directly these are cleared for planting out, fill them with Balsams and other annuals, to occupy the greenhouse during the summer. Newly pricked off annuals for turning out may likewise be sheltered for a week or two in them, to get hold of the pots before planting.

Conservatory and Show House. Chinese Azaleas, Cinerarias, and the Pelargoniums, slightly forced, will make a great display just now, assisted by forced Roses, a few yellow Calceolarias (a desirable plant at this season), Roses, &c. Keep up a good stock of Orange trees, Daphnes, and scented leaved plants, for their agreeable fragrance. The temperature should now be kept down by shading, and admitting more air; this will benefit Heaths, Epacrises, and New Holland plants, brought in for decoration.

Dahlias. Repot without loss of time, using good rich soil, and harden the plants gradually before planting out. Neither an early nor a large plant is absolutely necessary to ensure good blooms; on the contrary, a late struck plant is preferable to one that has become stunted in its growth. Seedlings must have plenty of room, light, and air; or they will become drawn, and will suffer when they are planted out.

Flower Garden and Shrubbery. Where planting has been unavoidably necessary this spring, mulching must be resorted to, and the newly planted trees, particularly evergreens, damped overhead each afternoon, until they commence growing, when watering at the roots will suffice in dry weather. Supposing the beds for the summer flowering plants have been duly prepared, with the proper compost necessary for each kind of plant, the turning out of the hardiest plants may be proceeded with at once, especially if there is much to do, as it will give time. Pentstemons, Dianthususes, Phloxes, and many half-hardy, biennial, and perennial plants, should first be transferred to the open beds. Then may follow Verbenas, Fuchsias, and similar things; reserving Geraniums, especially the fancy varieties, Dahlias, Salvias, Heliotropes, &c., to the last.

Forcing.—To Grapes changing colour admit plenty of air; and if growing in pots, or in-door borders, reduce the water supplied to the roots, and stop and train the shoots of succession Vineries; and thin the bunches as soon as the berries are formed. Fires will be necessary to late Grapes, during the time they are in bloom, to ensure a good set. *Vines* at this stage should be kept as dry as possible; but, both before and after the blooming period, use plenty of water in each house, sprinkling the floors, walls, &c., often each day; this is more necessary this spring, owing to the dryness of the external air. *Peaches*, tie in the shoots as they advance; thin the fruit by degrees. Do not allow many to stand over till after stoning, or you may lose more than you want; keep down red spider by the application of clean water; and the fly by timely fumigations.

Hardy Fruit. Disbudding the choicer wall-trees, as Peaches, Apricots, &c., should take place gradually, reserving such shoots as will be

required to afford the crop for next season. Thinning the young fruit when too thick should be done at two or three times, taking off a few each time, till the final number for swelling off only remains.

Kitchen Garden. The late spring has been so completely favourable for working heavy soils, that a fine tilth may be reasonably expected, even on intractable soils—a fact so far advantageous; but autumn sown vegetables are suffering from the cold chilly nights, and the absence of the warm showers of April, so congenial to vegetables. Weeds by this time there ought to be none; and therefore, hoeing and loosening the surface round growing plants will only be necessary, drawing a little earth to Cabbage, Cauliflower, Peas, &c., as you proceed.

Mixed Greenhouse. To make room for choice plants in bloom, as Geraniums, Calceolarias, Cinerarias, &c., several comparatively hardy plants may now be transferred to a temporary shelter. Myrtles, many Acacias, Rhododendrons, Aloes, &c., may be trusted to frames, or any odd house or shed for a few weeks, to make room for the above more showy plants. Heaths and hard-wooded plants must now have abundance of air; small plants of the above will grow nicely now in frames; Shade on bright days.

Orchids. These superb plants are now making active growth; keep the air of the house humid by damping the interior frequently each day: shade must be given each day. Examine plants growing on blocks and baskets, and soak them every two or three days; syringe them daily in the interval. Plants requiring to be re-dressed or potted should be done as needed. Remove plants in bloom to a cooler house, to prolong their beauty.

Pansies. These are both early and fine this season. Their beauty, however, will last in proportion to the attention they get with the water pot, unless we get a change. Seedling beds should be often and carefully examined, marking the promising varieties when they are in true character. Propagation should be attended to this month, the cuttings being kind and healthy; small side shoots are best. Autumn saved seed should now be sown, to bloom next autumn. Never sow seed to come in bloom during the summer months, or it is difficult to ascertain what they really are.

Pelargoniums. The shading should now be generally up, and used according to the brightness of the weather: there should be no green-fly to keep under. The bees must be kept out of the house either with Heythorn's or Hall's garden netting. The closest attention must be observed in watering. Plants for July blooming should now be tied out; give them plenty of room and keep them as cool as possible.

Pinks. Thin out blooming shoots to three or four on a plant, according to its strength and the known habit of the flower; also disbud the principal shoots as soon as the side buds can be removed; water liberally, using weak liquid manure once a week.

Tulips. These are now in bloom in the south. Shading during the day, and keeping them open during the morning and evening, is all that can be done this month, excepting taking notes, which should be done fully, and at different times, if a perfect bed is desired the following season.



Cyclamens

CYCLAMENS.

THE group of hybrid Cyclamens which forms the plate of our present number is a valuable addition to our spring flowers; and when lately exhibited at the Horticultural Society's Rooms, in Regent Street, by Mr. Atkins, of Painswick, and Messrs. E. G. Henderson, they were greatly admired.

The variety raised by Mr. Atkins, whose name it bears, is a charming plant; and we beg to append some particulars respecting it received from that gentleman, who informs us that the hybrid named *Atkinsi* was "raised from seed of *C. Coum*, impregnated with *C. persicum*, some of the seedlings proving true '*Coums*.' I first exhibited it in the spring of 1852, when a certificate was awarded it, and again this season, with the like result. It appears to be very hardy, having been wintered in a common frame, and the soil in the pots was frozen through during the severe frost in early spring; notwithstanding which the blooms began to expand immediately after the thaw, before either *C. Coum* or *C. vernum*; in 1852 some blooms were expanded before Christmas. To grow it in perfection the bulbs should be covered to the depth of one inch to one inch and a half with equal parts of light sandy loam, leaf soil, and peat; it loves to 'stole' beneath the surface, sending up the bloom and leaf at a distance from the centre of the bulb—the whole section to which this belongs delighting in that mode of growth. A cold frame would most undoubtedly be far preferable to any other kind of shelter (artificial heat being decidedly injurious); it might then be had in perfection from the middle of January to the end of April. In summer I plunge the plants in the frame in coal-ashes, without the glass being on, except during excessive wet, letting them take the chance of all moderate weather till the end of October; continuing even after then some air at night, except in severe frost. About two-thirds I find true from seed, the remainder varying in different shades of '*Coum*,' from a light blush to the usual colour of that species. Seeds sown in August of 1852 produced some blooming plants in January 1854. The foliage is always of a fine dark green, contrasting well with the pure white of the blooms, which are produced in great abundance—as many as 40 in a 48-pot. The specimen exhibited at the Horticultural Rooms had 250 blooms on it."

The other varieties are seedlings raised by the Messrs. Henderson, of the Wellington-road Nursery. *Ibericum* is a beautiful dwarf variety, with the habit of "*Coum*," and is quite hardy. *Punctatum*, *roseum*, and *rubrum* are hybrids from *C. persicum*, but, unlike *Atkinsi*, the seedlings vary very much, only a small part of them coming true; so that they are obliged to prove

all seedlings before sending them out. Besides the sorts now figured, Messrs. Henderson inform us they have obtained a further batch of exceedingly pretty hybrids—of a distinct habit and colour—which will in due time find their way to the public. The treatment recommended by Mr. Atkins for his hybrid suits equally the last named kinds.

GLASS WALLS VERSUS BRICK WALLS.

THE removal of the duty from glass was one of the greatest boons that could possibly have been conferred on horticulture; its reduced price at once placed it within the reach of thousands who before could not afford it; and it allowed those who then used it to increase it to almost any extent. Gardeners began to employ it in ways and for purposes for which its price had hitherto been an obstacle, and among other things we soon had orchard houses and glass walls introduced to our notice. These I have no wish to disparage in the following remarks; they are useful things enough in their way, and to those who do not look entirely to profit they may prove subjects of much interest.

With regard to the invention of structures, &c., required in horticulture, from a hot-water boiler to a glass wall, the great mistake consists in this—that the admirers and friends of the invention promise and say a great deal more for them than they ever perform, a remark especially applicable to orchard houses and glass walls, which, as I have already said, may be in their way useful adjuncts to gardening; but if we consider the end for which they are designed, all has been said for them that can be said. What are they but mere expedients?

In your April number Mr. Ewing, alluding to his glass wall, says, “Notwithstanding its advantages, I find both gardeners and amateurs who seriously discuss, and tenaciously adhere to, the antiquated plan of fruit tree protection by canvas-rolls and Fir branches.” Now believing that this plan, which Mr. Ewing designates *antiquated*, will survive and continue to be practised long after his glass walls will be numbered with the things that were, I venture to defend it.

I believe I appreciate the value of glass in the cultivation of fruits and vegetables as fully as most people; but I would use it for advantage and profitable ends—for the production of Pines, Grapes, Melons, Cucumbers, and for the cultivation of early Peaches, and Nectarines, Apricots, Plums, Figs, &c., and for growth of winter vegetables. I would have, instead of the paltry-looking ranges of lean-to houses, which are in almost every garden, one building of architectural pretensions, divided into as many compartments as the kinds of fruits, &c., intended to be grown. I would have it heated by a perfectly effective apparatus, and I would have, as far as human ingenuity could invent, the means of perfect ventilation.

I now come to my subject; and in the first place I may mention that this is the sixth season successively in which I have had an excellent crop of wall fruit, including Peaches, Nectarines, Apricots,

Pears, Plums, Cherries, and Figs ; four seasons out of the six I have had an over-abundant crop, and two an average one, and this in the West Riding of Yorkshire. In this I do not stand alone ; my case is not the exception, for I find all my neighbours equally fortunate. The ill effects of the severe frost on the night of the 24th April last, which has proved so destructive to crops in the south of England, were also experienced here, but the thermometer was not so low as in some places in the south ; we had, however, seven degrees of frost, and notwithstanding that every tree in this garden was exposed to it, none suffered from it, not even standard Pears and Plums, as far as I can discover. The only things that I could find touched were Ash-leaved Kidney Potatoes, which were a little injured. From inquiries I have made I learn that my neighbours have been equally fortunate.

My friend Mr. Abbott, gardener at Ribstone, has on a west wall as fine a crop of Apricots as any man could wish to see : these and all his other crops have escaped unhurt.

I believe I have myself as fine a wall of Apricots as any in England ; I intend to ripen about five hundred dozen fruits, and I have already pulled off three times that number. This will give some idea of the quantity of fruit ; but some will perhaps say that, owing to leaving so many to ripen, they will be small and of little value ; I assure such, however, that this is not likely to be the case, and that I will undertake to produce from this wall of trees, in the second week of August next, fifty score Apricots, which will bring as high a price in any market in England as the same number pulled the same week from any single garden in this country. This, I think, is a fair way to test their value.

I find that my crop of Peaches, Nectarines, Pears, Plums, Cherries, and Figs, is equally good, and bush fruit a most abundant crop. From what I have stated, people will not, I hope, charge me with egotism, because what I have said applies, as I have already mentioned, equally to my neighbours. My object is to defend what Mr. Ewing calls "the antiquated plan of fruit tree protection by means of canvas-rolls and Fir tree branches," and I hope to be able to show that that plan will PAY, which I am inclined to think his glass walls will not.

No man of capital will embark in any enterprise or business which he has reasons to think will not PAY. Gardeners, least of all men, can afford to do so ; if, then, we find the old system of brick walls pay better than glass walls, we have one great point gained in favour of the former. But I will not rest my case here ; I will go further, and maintain that fruit from the open wall is of as good quality as that from any glass wall or orchard house. The best and fairest way to test this will be to see which will bring the highest price in the market.

In the first place, as I wish to show that the old system of brick walls will pay better than glass walls, I may mention what a market gardener said to me last summer. I was walking with him over a piece of land which he had purchased, and to which he was transferring his stock from a garden he was giving up ; among his stock was a quantity of young fruitful Apricot and Plum trees. I was anxious to know his opinion of glass structures without artificial heat, consequently I asked him, and his reply was :—" See this border ; I have got an estimate for a wall

the length of it ; I find I can build it for three hundred pounds. I will fill it with Apricot trees, a few Peach trees, and the best sorts of Plums, in a bearing state, and in six years I will have my money back." Now, I would ask, can those who advocate glass walls do as much with them? I very much doubt it.

What labour would be required to manage five hundred yards run of glass walls? Those who have tried them will, of course, be able to answer. If all the fruit trees in this garden were in glass walls, they would require all the labour I have to manage them ; but, as they are, a few weeks' nailing from one man, with what I do myself, completes the whole. Will, then, I ask, the quality of the fruit grown in glass walls pay for the additional labour and expense? I doubt it.

On four of the six last seasons I have had to thin all my crops of wall fruit very much : some kinds to the extent of three-fourths, and the other two seasons I had plenty of fruit set for a crop ; so that, had all these trees been in glass walls, I could not have left more fruit on them with wisdom than I did ; and this brings me to my second assertion—that fruit from open walls is of as good quality as that from glass walls. As the latter are not in extensive use, we have as yet no fair means of testing this. If Mr. Ewing, or any other person, should ripen, say one dozen, very fine fruits, and should exhibit these, say at one of the meetings of the Horticultural Society in Regent Street, and should be awarded a medal, I am not prepared to admit that as conclusive evidence that fruit *in general* from glass walls is of superior quality to that grown on brick walls. But when Mr. Ewing can produce in the second week in August fifty or one hundred score of Apricots, or in the second week of September fifty or one hundred score of Peaches from his glass walls, which will bring a higher market price than the same number of fruit gathered at the same time from the open wall, we can then easily decide which are of superior quality.

Fruit is affected by all the circumstances which affect the wood and leaves ; if, therefore, I can show that wood under glass, without artificial heat, is not even so well ripened as that on open walls, I think we may fairly conclude that the fruit from that wood is not of better quality than that from the open walls.

Trees or plants cannot be cultivated in the absence of the freest access to air in motion. The more rapid the motion, within certain limits, the higher the health of plants, and *vice versa*. This is the very foundation of good gardening, and it is precisely this which is unattainable in glass walls. This is the exact opposite of a natural condition, and plants demand all the proximities to natural conditions which are to be secured by art. In Nature they breathe freely. Direct, constant, and most unrestrained communication with air, perpetually striking and then quitting them, is as necessary to them as to animals.

I mention that the air in glass walls and orchard houses is not always in that state of motion which is essential to the healthy growth of plants. How different with trees on open walls! They are always experiencing a change of air, night as well as day. I ask the readers of the *Florist* if any of them ever knew of, we will say a Vinery, which for twenty successive years has borne good crops of superior Grapes

without any artificial heat ever having been used? I think there are very few gardeners who have seen such a thing.

On the other hand, there is scarcely a reader of the *Florist* who is old enough to remember, but knows of many Vineries where artificial heat has been used which have borne good crops of superior Grapes for twenty—even for forty or fifty years. Now what causes the difference? Simply this; in the one case the wood has been always well ripened, and in the other never. All gardeners know what a difference there is in the wood of Vines which has ripened without artificial heat, and that which has been ripened with it. Now this difference in the ripening of wood is not so much owing to a greater amount of light, nor is it altogether due to artificial heat, though that does assist it; but it is chiefly due to the more rapid motion of the air.

I will now take two Peach houses, in which little or no artificial heat has been employed; we will suppose they are similar, and have been treated alike in every respect, and that they ripen their fruit about the 1st of August. We will now suppose the glass is left on one of the houses, and that it is all removed from the other for a month or six weeks, but not longer; the latter is exposed to unrestrained communication to air, the former has only its usual ventilation. Now I ask the advocates of glass walls which of these two houses will contain the best ripened wood; which will be most likely to have a healthy and finely developed bloom the following spring, and which the greater certainty of a crop? The same holds good with regard to the wood of trees ripened in glass walls, and that on brick ones; the latter, if kept sufficiently thin, will be much better ripened, in consequence of free exposure to air.

The great evil in all glass structures is the imperfect means of ventilation. From my own observations through life I am led to believe that nine-tenths of the failures we witness in forcing-houses arise from want of proper ventilation.

This article having already reached a much greater length than I had intended, I will not multiply instances to prove that which almost every person admits; and that is, the advantage of air in motion to all plants.

There is one fact of which I wish to remind the advocates of orchard houses and glass walls; and that is, that one-half, at least, of all the Apricots, Pears, and Plums that reach the country markets is produced by cottagers and farmers from trees which grow against their houses and other buildings. I know that in this neighbourhood considerably more than one-half is brought by cottagers and farmers. There are many cottagers who make their rent of the fruit which grows on the tree or trees against their houses; and, remember, some of them get very superior fruit. I am acquainted with a cottager who last year got three shillings and sixpence and four shillings a score for Apricots in Knaresborough Market—not to go further from here. Even when most abundant, in 1852, they sold then at eighteen pence the score.

Are the millions, then, to give up fruit growing if they cannot get orchard houses and glass walls? By no means; rather let us all encourage its production; and when we get a fruit tree against every

cottage and building in the country, we shall not want fruit, let the seasons be what they may.

I have never experienced any difficulty in securing good crops of wall fruit, by proper and timely thinning of the shoots in summer, and by doing it myself. Glass as a protection to the blossoms in spring is an advantage, but after the crop is set I would by all means remove it; but as it is more expensive, and requires more attention, I prefer canvas-rolls and Fir branches, or, what is equally good, Fern or straw; if the wood is well ripened I would not (nor do I) use these. When I consider the immense quantity of fruit which a good walled garden well stocked with trees annually produces at little cost, I cannot believe they will ever give way to glass walls.

M. SAUL.

The Gardens, Stourton, Knaresborough, Yorkshire.

THE HARMONIOUS DISTRIBUTION OF COLOURS IN STANDS OR COLLECTIONS OF DAHLIAS.

FEASTING my eyes with the gorgeous display of Dahlias brought together for exhibition at Brighton in September last, while I fully appreciated the skill and labour which must have been expended, to produce such beautiful specimens, I was particularly struck with a defect, almost universal, and to me, at the time, quite inexplicable. Though the individual blooms in many, I might say in most instances, were as perfect as high culture and dexterous manipulation could render them, yet there was scarcely a collection, *taken as a whole*, which did not offend the eye by the palpable want of harmony in the arrangement and distribution of colours. On my return home, I determined to attempt the correction of this failing, so far as I was personally concerned; not without a vague hope that, if I succeeded, I might haply become the teacher of others. Day after day did I cut, arrange and re-arrange my twenty-four varieties: and with what success? Truly but indifferent. On one occasion only could I produce (taking, be it remembered, the best formed flowers to be found, *irrespective of colour*) a *tout-ensemble* which *almost* pleased me. I now come to the self-sufficient conclusion (Oh! the vanity of human nature!) that, because I could not accomplish the object in view, the thing was next to impossible. Perfectly satisfied that I had done my utmost to succeed, and equally satisfied that I had, on the whole, sustained a signal defeat, I next proceeded to ascertain the causes of my discomfiture. To this end I proposed to myself the following question:—"Why is it that we so seldom see a collection of Dahlias, in which the various colours are so blended as to form a harmonious whole?" Let us examine the subject a little more closely.

First. Simple as the operation may appear, it is really difficult, under any circumstances, so to put up a stand of twenty-four blooms as to bring out the full beauty of which the combination is capable. He who would do this must possess an eye correct to fastidiousness, a mind imbued with the love of art, and no intuitive taste, mellowed and

matured by judgment. I apprehend it is an easy matter to find an individual in whom all these requisites are combined. Do I possess them? I blush not to answer—No.

Secondly. With a very large proportion of men—less so, perhaps, with women—there exists a natural defect in the eye, or rather in its nerves, which renders them incapable of appreciating colour. There are some persons who can see no difference, save that of form, in the *leaves* and the *flowers* of a scarlet Geranium. I know of many to whom scarlets and crimsons appear identical, and who class lilacs, purples and violets, indiscriminately as blues. I believe the number of those who can *distinguish* the seven prismatic colours to be much smaller than would be generally supposed. Not the least curious part of this defect of vision is, that the individuals in whom it is present are, for the most part, ignorant of its existence; and the discovery, if made at all, is usually the result of accident. An analogous infirmity in a sister sense is quite as common, perhaps even more so; although few will venture to admit themselves to be the subjects of it. I allude to the want of ear—as it is popularly termed—for music. I take it that colour is to the eye what sound is to the ear; the harmonious combinations of the one affording as much delight to the former as those of the other yield to the latter organ. It by no means follows that the individual who is unable to discriminate between the *shades* of colour is therefore altogether insensible to colour itself; nor that he who cannot tell one note from another is incapable of deriving pleasure from the sound of music. I can call to my memory nothing more exquisite than the silvery tones of Malibran; the recollection of martial music will keep me awake half through the night; and yet my auditory apparatus is so strangely constituted, that I cannot, for the life of me, *distinguish* between the “Old Hundredth” and “Rule Britannia.” Let us return to our subject.

Thirdly. There is yet another cause, no less important than the preceding, which will be found constantly to baffle the exhibitor in setting up his blooms, and which, as it has its origin in the flowers themselves, is very much beyond his control. A man shall have an artistic mind, a refined taste, and an eye able to discriminate with the utmost nicety every appreciable shade of colour, and yet—unless he grows on an enormous scale—it will rarely happen that he can put together twenty-four dissimilar blooms in such a manner as to satisfy himself with the effect produced by the combination. When an intending exhibitor selects his flowers, he naturally seeks first for those which are most perfect in form; and it will generally happen that when he puts them together there will be found an undue preponderance of one or more shades of colour. To reject these for blooms more desirable, perhaps, for the sake of arrangement, but inferior in form, would be to incur too great a risk. The consequence is, that the general effect produced by the stand, *as a whole*, must, of necessity, become a secondary consideration. If I could procure on a given day just what flowers I would prefer to make up a stand of twenty-four, I think I should choose one pure white, one blush, two yellow, two edged or tipped, having a white, and two a yellow ground; two maroon, two crimson, two purple, and two dark shaded; the remaining eight should be made up with

flowers of a medium tint, including buff, orange, scarlet, lilac, rose, and their shades. Twenty-four such blooms of good form, and well matched for size, might be arranged in twenty different methods, and a good effect always produced. Possibly the autumn will scarcely ever grow plants in such profusion as to ensure the requisite number of every colour. I fear we can scarcely expect, in this case, a really good and *telling* arrangement. With growers for sale it is another matter. Perhaps some one or more among them will make an attempt in this direction. Should it prove successful, the enthusiastic amateur will soon be eager to increase the number of his plants; and herein the dealer may probably find a recompense for his trouble.

To conclude. I am by no means certain that I have penetrated to the root of this matter. But that there are certain definite causes in operation, tending to produce the defect of which I have been speaking, who can doubt? Many of our Dahlia growers are men of cultivated taste; and yet I could find *only one* collection at the Surrey Gardens, and certainly *not one* at Brighton last autumn, in which the attempt to produce a tasteful and harmonious combination of colour (if, indeed, such attempt were made) was crowned with success.

Another point connected with the exhibition of the Dahlia attracted my notice at the same time and place, to which I propose, ere long, to invite the attention of the readers of the *Florist*, whose pages I hold to be the legitimate medium of inter-communication for all and every one of the members of our *truly* "gentle craft." A. S. H.

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. VI.

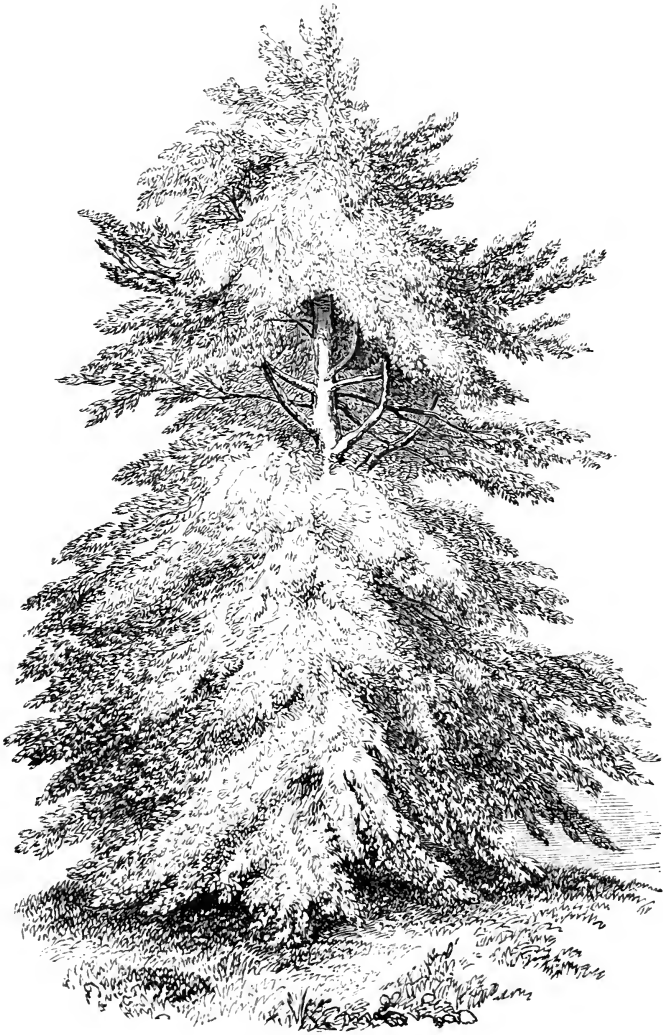
XII. CUNNINGHAMIA SINENSIS—THE CHINESE CUNNINGHAMIA.

OUR woodcut for the present number represents a tree of the Cunninghamia, about twenty-five years old, growing in the grounds at Tottenham Park, the residence of the Marquis of Aylesbury, in Wilts, and taken by permission of our esteemed friend, Mr. Burn.

This is a remarkable and distinct Conifer, resembling Araucaria Braziliensis in its general appearance. It forms a low spreading tree, producing numerous branches growing horizontally, and furnished with lance-shaped leaves, thickly set on the branches, sessile, much pointed and spreading in all directions. The male and female organs are on the same plant. Cones small, roundish, and drooping.

The Cunninghamia is a native of China, principally in the southern provinces, and was first introduced in 1804. For some years afterwards it was considered tender, but is proved to be hardy to the south of London, and is found to stand the winter without protection in many parts of Scotland. Owing, however, to the doubts which have existed on this point, the Cunninghamia is but seldom met with in collections. We regret this, and as the late severe winter does not appear to have injured any specimens we have seen, including the fine plant we figure, it must be considered hardy. When first planted it grows slowly, and is much disposed to throw up several leaders, which should all be stopped back, except one to form the stem. This habit doubtless arises from

the young plants being usually raised from layers or cuttings. We have found it a good practice to plant a few Brooms or Heaths round the young plants, which will help to draw them up, and, with a little



CUNNINGHAMIA SINENSIS.

Height 27 feet ; girth of stem at 3 feet from the ground, $4\frac{1}{2}$ feet.

management, a good leader will soon be obtained. We hope, however, so valuable an ornamental tree will soon be procurable grown from seed, when the above difficulty in starting will not be experienced ;

like other plants, natives of warmer climates, it should be planted on a dry soil.

The *Cunninghamia* is admirably adapted, from its foliage and picturesque style of growth, for giving an exotic character to garden scenery, or to accompany rockwork on a grand scale; and whether planted singly or in masses, is very effective as an ornamental tree.

XIII. *PINUS GERARDIANA*—GERARD'S, OR THE EDIBLE PINE OF INDIA.

A species from the Himalayas, principally on the banks of the Sutlej, where it forms a tree fifty feet in height, and a bushy compact cone when young; but as the tree becomes older, the branches take a more horizontal direction, and twist themselves in every direction. Major Madden states the bark of old trees to be of a silvery grey, falling off in large flakes. The leaves are stated to be on native trees four to six inches long; our growing specimens are not over half that length, arranged in threes, and of a dark green colour. The cones are large, eight or ten inches in length, by five to six in width. The seed, which ripens in India in September and October, is used largely as an article of food by the natives. This Pine is hardy, and though possessing no particular beauty, is useful in collections as a distinct species.

XIV. *PINUS PERSICA*—THE PERSIAN PINE.

Introduced from Persia by the Hon. Wm. Fox Strangeways. It resembles in appearance the Aleppo Pine (*halepensis*), except that it has three leaves in a sheath. The tree grows slowly, and has a stunted appearance, with numerous short branches; leaves two to three inches long, pale green; cones short. Where a selection only is grown, this Pine, having nothing very particular to recommend it, may be dispensed with.

HINTS ON GRAPE GROWING.—No. I.

APPLICATIONS, asking me for advice on growing Grapes, have now become so numerous that it has struck me I might as well write a few hints and publish them (referring the next inquirers to the *Florist*), as be constantly writing letters—especially as the greater part of the “cases” which reach me, detailing want of success, arise more through non-attention to a few plain and simple rules than aught besides. Permit me, Mr. Editor, to say, I by no means wish to interfere with private judgment, nor yet with the practice of the great initiated who figure as F.H.S.; nor with those whose names are held up as notables in the list of winners of medals at the Chiswick and Regent's Park Fêtes. Nor do I by any means wish to disparage the practice of certain clever men who “go into it,” and copy everything they see in print; especially if the results have a touch of the marvellous in them. I, of course, could not say anything worth being looked at by any of the above; and, therefore, intend merely to give a few very plain hints to plain folk who wish to grow a few Grapes for amusement or profit, or both, perhaps (I like the latter plan amazingly), and who, bewildered by apparent difficulties in the way, and the

multitude of authorities giving advice, pause before they venture to start with such uncertain guides.

Sorts to select.—The ambitious in this way generally want to make a vast display in having a number of sorts; one great cause of failure is growing too many kinds in the same house. Hamburgs, Muscats, and Frontignans, St. Peter's, early and late kinds, strong growers and weak, are huddled together in one house; thence comes mischief. Now by far the the best Grape for nearly every purpose is the Black Hamburg. Never mind about Mill Hills, Richmond Villas, Victorias, or Popes; the original old Black Hamburg is quite as good as any of the new kinds, if not better; so for general purposes stick to the old Hamburg—for a black Grape for use from May to January. But a few white Grapes are also required to vary the dessert, or help the sale; so plant at one end of the house a few Royal Muscadines, or Dutch Sweetwaters; one-third the quantity of black Grapes planted will be ample. I recommend planting them by themselves, because, if mixed with the strong-growing Hamburgs, the latter will outgrow and starve them; so keep them at one end.

Now, supposing very late Grapes are required, say in January, why then, the Hamburgs I have been praising up would not keep so well as some; and therefore (but mind, they must have a house by themselves) the West's St. Peter's, and Barbarossa, filling two parts of the house with the former kind, as being rather higher in flavour, and a more prolific bearer. Here, then, you have the cream of black Grapes, so far as productiveness and quality combined are in question. Now for a late white Grape. There is nothing better than the Muscat; and this Grape, too, should have an apartment to itself, for it requires more fire-heat than any other; and its good qualities repay the expense of fire heat. Frontignans, and several other kinds, are fine Grapes, for flavour, but may be handed over to those who do not mind expense and room. You have, therefore, the Hamburg, West's St. Peter's and the Barbarossa for black Grapes; and the Royal Muscadine, Sweetwater, and Muscat for white—six sorts, which, with few special exceptions, are quite enough to grow for profitable uses.

I next take soil, or compost in which to grow them; and here again simplicity is the rule. It has been demonstrated over and over again, that turfy loam, a little road grit, or old mortar, and a little well-rotten dung, horse, cow or pig dung, it does not matter which, are all that are really required to grow first-rate Grapes. Old pasture turf cannot always be had, but in most places a few loads can be obtained from waste grounds, commons, or sides of roads; it should not be clayey, nor yet too sandy, but something between the two, dug not more than three or four inches deep, and stacked up for two or three months, for the grassy part to decay. One cart-load of old mortar, or scrapings of towns, will be plenty to four or five of the above, except the loam is very heavy, when a little more may be added, and the same quantity of the manure; chop up the turf, and mix the whole together when in a dry state. Mind, never meddle with these materials when wet.

FRAME-GARDENING.—No. III.

NERINES, &c.

NERINES, like the last plants we treated on, are generally termed Cape Bulbs (although *Nerine sarniensis*—the well-known Guernsey Lily—is a native of Japan), and ranks among the most difficult things to manage well in pots; either because their true character has not been studied by the greater part of plant growers, or that their cultivation has given way to plants less susceptible of neglect than the beautiful *Amaryllis* I am about shortly to describe. The species most easily met with are,

<i>Nerine sarniensis</i>	|	<i>Nerine curvifolia</i>
„ <i>venusta</i>	|	„ <i>rosea</i>
„ <i>corusca</i>	|	„ <i>versicolor</i>

All the above commence growing in the autumn, and continue making growth up to March, April, and May, when the leaves die down, and the plant remains at rest until the autumn, when, if properly treated, the flower-stem appears generally before the foliage. The flowers are of various colours, running from a pale rose to the deepest crimson in various gradations, but all extremely beautiful, and worthy of the attempt being made to grow and bloom them in pots.

The best time for commencing with the above will be when the decay of the leaves shows the bulbs have completed their growth; pots suitable to the size of the bulbs should be selected, which, after being drained, should be filled with compost; a rich loamy soil will be the most suitable; manure should be dispensed with, but a portion of sand—according as the loam is heavy or the contrary—may be added. Plant them at once in the pots you expect them to bloom in, as, after growth has once began, the whole section dislike any unnecessary meddling with their roots, which would tend to check their growth and defeat the end in view. The bulbs may be inserted sufficient to cover them with soil, and the pots (for reasons stated in our last paper) should be rather deeper than the ordinary make; plunge in a cold frame, near the glass, and when the plants appear above the soil they must be fully exposed to the light; it is somewhat out of our way, but if by any means a slight bottom-heat could be afforded them, it would materially assist in keeping them during the early stage of their growth. Water only when the plants become dry. The great object through the winter will be to keep them growing slowly. The foliage should nearly touch the glass, so as to obtain the fullest share of light, while air must be admitted to prevent the leaves from drawing, which will hardly be the case when treated as above. As the leaves become fully grown, which will most generally be by the month of March, the frames may be shut down early in the afternoon, still keeping the plants near the glass; this will give an increase of temperature, which, accompanied by light, will materially assist the ripening of the leaves, on which success mainly depends. As spring advances, the leaves will begin turning yellow, at which stage water must be gradually withdrawn, allowing them to complete the ripening process in a dry

state. When the leaves have died down to the pot, cultivation may be said to cease. The pots should now be placed in a cool shady frame for the summer, merely protecting them from very heavy rains, but in other respects exposing them. If the culture has been successful, they will commence throwing up their flower stems early in the autumn, when they may be removed to the greenhouse, or, in fact, any situation where the blooms can be protected from wet, and where their beauty can be seen to advantage.

THE GENUS EPIMEDIUM.

IT should be the object of all who cultivate hardy herbaceous plants to select as many of the early spring flowering kinds as can consistently be done with moderate means; the variety of such is rather limited, and therefore any addition towards forming a collection is a point which obviously may be regarded as absolutely essential. Throughout the summer there is an abundant supply, but in early spring and late in autumn the number is very limited. Amongst those flowering at an early season are several species of *Epimedium*, which are all dwarf growing herbs, well adapted for small beds or borders; they have a very pleasing habit, with a neat foliage, and can be cultivated with the greatest facility in any light garden soil: some of them bear very pretty flowers, others are inconspicuous, but, on account of their early spring flowering and peculiar neat foliage, are interesting, and deserve a fair share of attention. The following hardy species are in cultivation at Kew:—

Epimedium pinnatum.—One of the best of the genus, attaining the height of nine inches; the leaves are pinnate, hairy, and cordate; the flower stalk arises from the base of the plant, bearing on its apex an erect raceme, five inches long, of very bright yellow flowers.

Epimedium Musschianum.—This species grows about a foot high; has a stem-leaf biternate, with leaflets cordate and hairy beneath; scape two or three inches long, springing from the swollen part of the stem, and bearing a small raceme of 6—8 flowers of a yellowish white.

Epimedium grandiflorum.—A beautiful flowering species, growing from six to nine inches high; stem-leaf biternate; leaflets cordate and slightly hairy beneath; scape 2—3 inches long, springing from the swollen part of the stem, and bearing a small panicle of large light-coloured flowers, tinged with purple. This species is known as *E. macranthum* in gardens.

Epimedium diphyllum is an interesting little plant, growing about six inches high, having twin leaves and white flowers.

Epimedium alpinum.—A very pretty flowering species, attaining the height of about ten inches, having a stem-leaf biternate, with very delicate cordate leaflets, and a scape springing from the swollen part of the middle of the stem, bearing a panicle of bright reddish and yellow coloured flowers. This species is indigenous to Britain.

Royal Botanic Garden, Kew.

J. HOULSTON.

THE HORTICULTURAL SOCIETY'S EXHIBITION.

THE first exhibition of the Horticultural Society of London took place on the 12th ult., and, although the day was one of the most enjoyable for the purpose that we remember, yet, owing to the launch of the Royal Albert man-of-war at Woolwich occurring the same day, the company was very small in comparison with the numbers generally seen at the Society's Exhibitions. On walking round the tents, under which the Exhibition is held, it was evident at a glance that the number of plants entered for competition was much below the standard of former years, both in quality and quantity. The Ealing Park collection having gone into various other hands, Mrs. Lawrence of course was not expected; neither could the present owners of the plants show such recent purchases, and it came to our knowledge, that one or two exhibitors refrained from sending their plants, from a feeling—highly honourable to them—that their competitors might surmise that recent purchases from the Ealing Park collection might be among them. In addition to these losses, neither Mr. Colyer of Dartford, Mr. Speed, Messrs. Fraser, Mr. Quilter, Mr. Turner, nor several others exhibited, whose productions have hitherto held prominent positions, whether owing to the recent alterations in the Society's schedule of prizes (which was hinted on the grounds) or not, we are unable to say; but let the cause be what it might, their loss was sensibly felt by those who for years have visited the gardens on the fête days. We regret, too, that the prizes have been withdrawn for Indian Rhododendrons and Cinerarias, which used to form a good feature at the May shows; and the absence of the principal exhibitors of Pelargoniums caused a blank in the Pelargonium tent, which elicited regret from all parties. As a compensation, the Roses were superlatively good, and the fruit such as we never saw at a May show before, and among which, some articles demand special notice. We must first point to the basket of Black Hamburg Grapes from Oak Hill, which certainly was the finest sample of grape-growing ever seen in May, and much before any others exhibited, although many fine dishes from various parts of the country were shown. We must next notice some Nectarines shown in Mr. Fleming's collection, as exhibiting in point of size and colour all that could be desired. Peaches were not so good, and wanting in colour. Strawberries were exceedingly well done, and were shown in large quantities. The British Queen still claimed pre-eminence, and some in pots showed a fine crop of handsome fruit. We noticed a fine dish of Trollope's Victoria, a large, round, pale red fruit of good size; and a dish of an exceedingly handsome seedling variety, called Sir Charles Napier, with the appearance of the British Queen, but regularly coloured all over. We understood the judges considered the flavour not equal to its appearance; but having since tasted the fruit, we consider it of fair average quality, and its fine colour and large size will, we consider, render it a valuable market fruit. Pines were shown largely, but in this section there was nothing remarkable, and one or two were very inferior. The best Pines shown were the Black Jamaicas,

—the Queens being generally either under or over ripe—faults to which several of the Providences were liable. The high colour of the Grapes, Nectarines, Strawberries, and Cherries exhibited, can be accounted for from the dry sunny spring, which has been the most favourable for forced fruits we have had for many years.

Of florist flowers there is still less to report; for, with the exception of Roses and Pelargoniums, they were not invited. As we before observed, Roses were shown in first-rate condition, Messrs. Lane and Son's collection being deservedly placed first, as the plants were faultless specimens of cultivation. We particularly observed the beautiful Tea-scented China Souvenir d'un Ami; H. P. La Reine; H. B. Paul Ricaut, with a profusion of large rich coloured flowers; H. C. Chenêdolé; and Tea-scented China Viscomtesse de Cazes; which, though rather small, was the best yellow Rose exhibited. Mr. Francis, of Hertford, was placed second, the most noticeable of his plants being, H. C. Coupe d' Hêbe; Juno; B. Souvenir de Malmaison; Pauline Plantier, and Tea-scented Adam and Bougère. Messrs. Paul & Son were placed third, and their plants appeared to have been injured by travelling:—H. C. Coupe d' Hêbe; Noisette Lamarque; H. Provence Alette; Paul Perras; and H. P. Madame Campbell d' Islay, which has always seemed to us to be La Reine under another name. Messrs. Paul & Son had a seedling Hybrid Perpetual, Helen, with the colour of H. P. Duchess of Sutherland, and somewhat the shape of H. P. Baronne Prévost, and was highly scented. Messrs. Standish & Noble sent two new Hybrid Perpetuals, Gloire de France, and Jules Margottin, the former a good-looking flower, of a deep crimson colour, and the latter was not very distinct from Robin Hood, only that it possessed a more robust habit. Neither of the varieties was a marked advance upon existing sorts.

In the amateur class, Mr. Busby, gardener at Stockwood Park, was *first*, with some well bloomed plants, the best of which were H. B. Paul Perras; H. C. Coupe d' Hêbe; Solfaterre; and H. P. Géant des Batailles, which had been beautiful, but was a little past its prime. Mr. Rowland was *second*, with a collection of nicely grown plants; and Mr. Sage, gardener to J. Robinson, Esq, was *third*, with plants more dwarf and compact than those comprising the other collections. We understood these plants to have been taken from a nursery border, and potted in October last, and were highly creditable to the exhibitor, especially H. P. Duchess of Sutherland; H. P. Géant des Batailles; H. P. Louis Buonaparte; and H. P. Baronne Prévost, all of which were well cultivated specimens.

Mr. Dobson, of Isleworth, sent the *only* collection of Pelargoniums that were not fancies. These were small, but well bloomed plants of the following kinds, placed in the order we think they should stand as to quality:—Leah, Vulcan, Harriet, Rosamond, Glow-worm, Arethusa, Gulielma, Delicatum, Governor, Vanguard, Purpleum, and Ambassador. Two collections, six in each, of Fancy Geraniums were sent, and the *first prize* was awarded to Mr. Mockett, gardener to J. Allnutt, Esq. These plants were of average quality, consisting of Defiance, Richard Cobden, Cleopatra, Jehu Improved, Captivation, and Princess Alice Maude. The *second prize* was awarded to Mr. Gaines, of Battersea.

In *New Plants* there was nothing remarkable. Clematis Sophie, a good addition to hardy creepers, was shown; so also was Clematis monstrosa, a greenish white kind, with narrow petals, having a starry appearance. Boronia Drummondi was exhibited in good character by Messrs. A. Henderson & Co., of Pine Apple Place, and it will make a good exhibition plant. Messrs. E. G. Henderson & Son sent several varieties of Pomponé Chrysanthemums in bloom, the most prominent being Andromeda, Orion, and Regulus; however novel these may be at this season, they are not very attractive in company with the beauties of May; their appearance made us feel somewhat chilly, notwithstanding the sun's rays. Chrysanthemums *out of season* will not be popular, but in November they are very desirable. The same firm sent a blooming plant of the showy variegated Hydrangea, five varieties of variegated Geraniums, and several new Tree Carnations and Picotees, as we find some of them are edged as well as striped, and some are self-coloured. They are, no doubt, useful plants for cutting from for bouquets, but they will never be favourites of ours, with their serrated edges, confused petals, and gawky habit. Notwithstanding, they are very useful for winter decoration, as they are easily forced.

THE BATH OR CLIFTON WHITE MOSS ROSE.

THE singular coincidence of the two English White Moss Roses (both sports from the common red) having been discovered about, if not at the very same period, would appear incredible, did not the following particulars, derived from undoubted sources, for which I am indebted to Mr. Tiley, of Bath, nurseryman, prove such to be the fact.

In or about the year 1799, the same year in which Shailer's or the Unique White Moss was discovered, the nursery of the late Mr. Jonathan Salter, of Bath, a highly esteemed botanist and florist, was often visited by two ladies of the Society of Friends, for the purpose of purchasing bouquets. On one occasion, while Mr. Salter was cutting them some red Moss Roses, they enquired if he had ever seen a white one. With an incredulity which could only be equalled by a similar question being now asked as to a yellow Moss, he answered that not only had he never seen or heard of such a variety, but also expressed his disbelief of its existence.

The ladies assured him that they had seen several blossoms of it, still he confessed that he must remain in doubt until he had not only seen but examined it; this they promised to enable him to do, and in the course of a week they returned, and presented him, much to his surprise and delight, with seven or eight blooms, fortunately with long stems, and from these he succeeded in propagating about two dozen plants that season. On his enquiring as to the origin of this beautiful Rose, the ladies informed him that they had not seen the plant, but that it grew against an old wall in a garden near their house in the north; it was an old plant of the common red Moss, a branch of which had forced itself through the decayed bricks, and bloomed very freely on the other side. The first year it was found the blossoms were

pink and pinkish white, but the second season every flower became perfectly white. Mr. Salter having unfortunately neglected to enquire the locality of this, though not singular, yet strange sport, it is not known; but certainly the west, which is generally considered entitled to the honour, is not its birthplace.* The recipient of this smile of fortune found his brother florists equally as incredulous as he himself had been as to the existence of this extraordinary novelty, and it was not until the plants had bloomed the following season that he could convince them of the fact.

The stock remained in Mr. Salter's hands the second season, and plants were charged a guinea for, when Mr. Miller, of Durdham Down Nurseries, near Clifton (now Messrs. Garaway, Mayes, and Co.), became the purchasers of a large part of the stock, and finding that Mr. Salter intended naming it the Bath White Moss, Mr. Miller preferred sending it out as the Clifton White Moss, and thus arose an *alias* which has puzzled many Rose growers to account for.

Most amateurs are doubtless aware of the sporting inclination which this variety still retains, particularly when grown strongly; it will frequently come light pink, and one variety of the blush Moss was, we believe, thus obtained. Sometimes it has rose coloured stripes on the petals, and I once flowered it half white and half red; however, when growing in a situation congenial to its somewhat delicate habit, it must be acknowledged, from its retaining so much of the similitude of its parents' beautiful calyx, that a bud of this Rose is one of the most *recherche* bridal flowers in existence.

Western Rose Nursery, Ealing.

C. G. WILKINSON.

MEMORANDA FROM KEW.

THE past winter must undoubtedly be recorded as having proved exceedingly trying to vegetation generally, but more especially to hardy or half-hardy things, as what is protected under glass, with ordinary attention, is not affected so as to be injured. After having had to contend with a very rigorous winter, which made great havoc here, the severe frost which happened on the night of the 24th of April destroyed all the young shoots of the out-door things, and in most instances either killed or severely injured all that were in any degree advanced further than the bud; some that had escaped the severity of the winter that far had their previous young growths quite killed, and must break again from the old wood. A large *Aralia spinosa* ten feet high has been killed to within two feet of the ground, while *A. japonica* growing near it, has only had the present year's growth cut back, and is now breaking again. *Magnolia purpurea* in full bloom had both flowers and young shoots completely killed, *Weigela rosea*, *Forsythia viridissima*, with many other early flowering shrubs, were all nipped. Many of the

* Perhaps some of the many "Friends," who are genuine lovers of flowers, will, on perceiving this omission, kindly make enquiries, and endeavour to supply the information to your readers.

herbaceous plants in which the present year's growth was a little advanced, suffered by having it very much browned or quite destroyed; such kinds as the *Veratrum*, *Funckias*, *Macleaya cordata*, &c., suffered most. But since the late rains things are wearing a very different aspect, and many are now flowering, of which the most conspicuous are *Trollius caucasicus*, *napellifolius*, *giganteus*, *americanus flore-pleno*, *aconitifolius*; *Hedysarum obscurum*, *alpinum*, *Corydalis nobilis*, *Paeonias*, with *Anemones*, *Ranunculuses*, and the several kinds of *Nemophila*, with many others of less importance. One of the most interesting things at present in the American grounds is *Gaultheria procumbens*, a dwarf hardy evergreen shrub, usually grown on rockwork, for which it is very suitable, or for mixing with others in beds, clumps or borders, if kept near the margin, as it only attains the height of about six inches; but if cultivated on a small bed by itself it will be found to be one of the most interesting little things in the garden during the spring; its flowers are small and white, but are followed by a great profusion of rich coral-red berries, which bear some resemblance to ripe Strawberries.

The Sikkim *Rhododendrons* under glass are at present making good progress, many of them are sturdy shrubs three feet high, with very healthy foliage. A variety of *cinnabarina* is now in flower, but it is of no use for cultivation, the flowers are too much like those of an *Azalea*, and only a few in the truss. Its colour is something like that of *glaucum*. *R. javanicum* in the same house is now flowering beautifully. This is certainly one of the best tender kinds in cultivation, and is a most desirable acquisition to any collection. *Cantua bicolor*, in this cool house, grows very freely, and forms a compact bush two to three feet high; it is at present in flower.

The aquatic house, which has this spring undergone a thorough repair and alteration, by raising the roof a little, and adding side lights, is now become one of the best plant houses in the garden. The tank occupying the centre is now gay with the flowers of the red, blue, and white Lilies; it also contains *Victoria regia*, *Euryale ferox*, and *Nelumbium speciosum*. Amongst the flowering things which occupy the tables is a fine specimen of *Statice Holfordi*, one of the best of its tribe; it forms a large handsome plant near three feet high, has a good foliage, and produces abundance of blue and white flowers; it was grown in a small close house through the winter, until the commencement of flowering, when it was taken to a more light and airy situation, where it is now completely one mass of flowers.

The large specimen of *Amherstia nobilis*, which for some years past formed a very prominent feature in the choice collection belonging to Mrs. Lawrence, at Ealing Park, is now transmitted to Kew, and placed in the centre of a moderate-sized stove, which has been altered for its reception. The south side of this house was, some half dozen years ago, glazed with long sheets of glass, but to grow plants under them was impossible without shading, and shading large houses is not only very expensive but troublesome; therefore, it has been deemed advisable of late to paint it, and shade the north side only with canvas, as it requires shading for a much less period than the south side, and

this plan answers exceedingly well ; it is green paint, and stippled ; the large sheets were each divided when reglazed into three ; it is not too dark in winter, and the plants look far better than when canvas shading was used ; they have a healthy deep green foliage, and are neither yellow nor burned, as was frequently the case under the large clear sheets of glass.

Royal Botanic Garden, Kew.

J. HOULSTON.

THE CRYSTAL PALACE AT SYDENHAM.

As the opening day approaches, public excitement respecting this extraordinary place increases ; and though it was noticed in your last number, a few additional notes made during a walk over it the other day may not be unacceptable to your readers.

To begin ; the inside, though apparently at present in an unfinished state, is so far advanced, that in a short time it can be got in readiness for the reception of the public ; it cannot be expected that the whole of the vast interior will be by that time furnished with the thousands of industrial articles which hereafter it will contain. Yet the vast proportions of the building itself, and the simplicity and harmony of its details, will afford a large field for investigation ; and though the *present* will not be represented to its fullest extent, yet there will be found in the contemplation of the *past* (as exemplified in the Antique Courts), sufficient materials to occupy public attention for a long time ; independently of the various sources of attraction which Sir Joseph Paxton is fast providing for the public in the grounds. The Courts, which are facsimiles of the architecture, style of decoration, and arts of different nations, afford, without doubt, the most perfect memorials of antiquity ever brought together on one spot. The public will now be able to trace the gradual progress of arts and civilisation, from the earliest dawn of Egyptian art, till it reached the highest point of excellence under the Greeks and Romans, whose consummate knowledge of form and proportion has never been surpassed. The decay of pure Roman art, as it gradually merged into the Byzantine ; and later, into the Gothic, Mediaeval, and Elizabethan styles, is perfectly shown in the courts bearing the above names ; while the elaborate style of the best Moorish architecture is beautifully carried out in the Alhambra Court. The Renaissance Court is represented on the opposite side, in connexion with the examples of more modern eras. Nor must I forget to notice the restored productions of Assyrian art, as displayed in the Nineveh Court ; which, buried for ages amid the ruins of the Great City, have been carefully modelled and coloured, and now stand before the world in all their pristine freshness, indicative of the marvelous conception and poetic bent of the Assyrian mind.

Before leaving, I must remark how infinitely more striking the interior of the present building is, in comparison with the Hyde Park palace : this was in some measure to be expected ; but I was hardly prepared for the magnificence of the scene which presents itself when standing

under the grand transept. Noble groups of sculpture are already arranged down the nave (which has a greater breadth than its prototype), which is agreeably broken in upon by projecting recesses; at intervals between the sculpture, a few exotic trees are interspersed, with the happiest effect, affording a resting point for the wearied vision. The harmonious colouring of the interior, with occasional glimpses of the brilliant decorations of the Antique courts; the lofty galleries, seemingly suspended in mid-air, so fairy-like do they appear from the floor; while, far above all, the vast curve of glass, which forms the grand transept, produces altogether an effect beyond description. Vast numbers of Camellias, Azaleas, Acacias, Orange, and other conservatory plants, are ready for transferring to the borders of the divisions which are to contain them, when the requisite arrangements are completed; the Date Palms lately received from Egypt are for the present arranged along the East transept. On passing from the building to the terrace, immediately in front, the eye takes in, not only the more prominent features of the grounds, but a large extent of country, extending like an amphitheatre in front; the whole richly wooded, and forming, not inaptly, a rich frame-work to the grounds.

The elevation on which the palace stands has afforded Sir Joseph great scope for introducing fountains on the grandest scale into the grounds; although these are yet unfinished, their effect may be easily imagined, by those who have been fortunate enough to have seen the display at Versailles. I may here remark, that the main building has projecting wings, extending at right angles, for a considerable space; the space enclosed by these wings is laid out in an upper and lower terrace, separated from each other by walls, mounted with a suitable balustrading, and connected with each other by broad flights of steps, opposite the main and side transepts. The lower terrace, even, is considerably above the level of the adjoining grounds, and taken together, they form admirable promenades; and by their overlooking the gardens below, the effect of the fountains, when they get into play, will be extremely grand from these terraces, as they will more especially be from the balcony of the grand transept. A broad gravel walk is carried from the centre transept, across both terraces, and directly down the grounds; at some distance from the lower terrace, this walk is intersected by a circular basin and fountain, round which the walk is carried; and at this point the principal water-works may be said to commence, and will be carried on to the bottom of the grounds, where, to the right and left of this walk, will rise jets of water to an enormous height, forming the most remarkable feature among the many wonders with which the place abounds; the basins to receive the waste waters from these and the minor jets, which are to surround the principal ones, are already finished, and most of the conducting pipes laid down. Still further to the right and left of these, and in a right line with them, but on higher levels, will be other fountains; so the valley which here intersects the grounds, and which has been made to take the direction of the Palace, will have four main fountains, the two side ones being subordinate to the grand ones in the middle. Besides the above, which forms only a part of the great scheme of water-work

which Sir J. Paxton intends introducing, will be a cascade, continued for a considerable way on either side of the principal walk adverted to, embellished with side jets, statues, &c., the waste water from which will flow over a suitable architectural wall into the lake at the bottom of the grounds, and which will take the waste water from the other fountains as well. There is to be, in addition to the above, fountains on the terraces, as well as in other parts of the grounds; the whole, when complete, will form a "tout ensemble" never before attempted in England, and surpassing even the famed Versailles waterworks in France. It is fortunate that Sir Joseph Paxton's great experience in this department of embellishment has had such an opportunity of being carried out.

As science and art are here blended together, geology has not been forgotten, and the bottom of the valley has been adapted for showing "in situ" the different geological strata; a portion of the British coal fields and strata included between the old red and new red sandstones is very correctly carried out under the superintendence of Mr. Campbell. These sections will do more to popularise this important branch of knowledge than anything yet attempted, and we hope Sir Joseph will find room to show the entire series of strata which form the crust of the globe. The extinct animals were described in your last number. I may in conclusion notice that the terraces, and grounds facing them, are fast approaching completion, the planting being nearly done, and the gravel walks in a forward state. I. S.

NOVELTIES AND NEW THINGS.—No. II.

IT was our intention to have followed up our last article on this subject with an enumeration of all the new things now offered for the first time, and to have remarked upon such as had passed under our notice; but the "London Nurseries" demanded and deserved so much space in our May number, that we have been obliged to defer a continuance of the subject, until now that "blooming time" is almost upon us. We shall, therefore, for the present refer only to such introductions as may require a passing notice, and report on the new plants as soon as they shall have been proved.

Among *recently introduced Vegetables* there have been of *Peas*—the Royal Moss Pod; Waite's Daniel O'Rourke, said to be earlier and better than the Emperor; Fairbeard's Nonpareil, said to be earlier and better than Champion of England; Erin's Queen, known only in Ireland, and recommended there by one or two of the political papers—not the most competent authority; Stuart's Paradise (why a *Paradise Pea*?); Paul's Early Dwarf Prolific, an early dwarf variety; and Danecroft Prolific Marrow. In *Beans* we have Mackie's Monarch, a long-podded variety of Broad Bean; Carter's Gigantic Scarlet Runner, said to be much superior to the old sort and with considerably longer pods—very doubtful improvement. Passing on to *Cucumbers*, we notice Conqueror

of the West; Sagg's Royal Exhibition, handsome specimens of which we have seen but not tasted; Marshall's Improved Jewess, and Norfolk Hero, stated to grow about eighteen inches in length, and to be an excellent variety for ridge culture. We are afraid that advertisers sometimes find it difficult to control their feelings, when pen in hand, "they to the wide world give free their thoughts." One advertiser commences as follows:—"THE CUCUMBER SEASON. *Growers of this superb and select branch of Horticulture!!*" Which is the branch? the Cucumber or the season? We have also met with an advertisement announcing a "Cucumber Surpriser," but whether the new introduction is to surprise the family of Cucumbers or the public, is not stated; but what a name! Among *Broccolies*, we have Dilcock's Bride, now a tried variety, quite hardy and well recommended; and Elletson's Emperor, quite new. We now come to a gigantic Lettuce, *Magnum Bonum*, the stock of which is stated to be exceedingly limited, in consequence of the impossibility of seeding it in the open air (?). It appears to be a *Cabbage Lettuce*, and has been seen *four feet in circumference*—a very questionable recommendation! There is also a *May's Paragon Cabbage*, which the advertiser "guarantees as the finest Cabbage in existence, has never been known to *run*, reaches 28lbs. in weight, and tender as Asparagus." We should imagine this—from the advertisement—to be a gigantic Cattle Cabbage.

We shall this season prove the American Strap-leaved Turnip, stated to be a good white sort, with Lettuce-like leaves; also Robertson's Golden Ball Turnip, a new variety. In *Celeries*, we have Laing's Mammoth Red, said to attain an extraordinary size, and therefore claiming attention from our northern readers; Incomparable Dwarf White, high in the estimation of many; and Cole's Crystal White, which, although not new, has again been proved by many to be first rate. There is a Cauliflower named Mitchell's Hardy Early, which is now under trial, and shall be reported upon hereafter. We are of opinion that the *Fluke Kidney* Potato is one of the very best varieties in cultivation, rich flavoured, an excellent storer and late, keeping remarkably free from disease. This is our opinion after two years' trial. There is, however, a seedling from it called *Dean's Seedling*, which we are told is an excellent variety, and three weeks earlier than the parent variety. The "Fluke," however, is a first-rate sort, and cannot easily be surpassed.

New Rhubarbs abound. Salt's Crimson Perfection is said to be very high coloured, and with but a small amount of acidity—a most desirable attainment; Marshall's Royal Leamington Blood Red; and Hawke's Champagne, said to be as early as "Prince Albert," deeper in colour, and more productive. We have not yet proved either of these varieties, but we have the gratification of speaking in high terms of a new variety not yet sent out, called "Scarlet Nonpareil," a basket of which was forwarded to us some weeks since, and was pronounced by our *chef de cuisine*—no mean authority—as the *best Rhubarb* yet under notice. It is very rich in colour, tender, juicy, and entirely free from acidity, with a very pleasing flavour, quite unlike that usually appertaining to Rhubarb. Among *Strawberries* we have Ajax, Ruby,

Captain Cook, Fillbasket; Nimrod, pronounced by good authorities to be a valuable variety, with a firm dry skin, so that it will bear packing well; and Prince of Wales (Ingram's) used for the principal crops at the Royal Gardens at Frogmore.

Among *New Annuals*, *Leptosiphon luteum*, a hardy species, with yellow flowers, claims especial notice, as it is an exceedingly pretty annual; so also does *Linum grandiflorum rubrum* (or *L. grandiflorum coccineum*, of some) with its deep rose-coloured flowers. There is also a batch of *new Delphiniums* called *Annieum!* *Woodsii*, *Weltoni album!* *Bronzeum!!!* &c. &c., some of which have double flowers; and a *Dahlia Maculatifolia*, which is described as a "Magnificent hybrid," (between other hybrids of course) and to be a "grand acquisition," with a "striking and handsome appearance!" Can imagination go further?

As the season progresses, we shall turn our attention to the numerous new plants, and new florists' flowers especially, that have been very recently introduced. There are a great many new *Verbenas*, both Continental and English varieties, *Fuchsias*, *Pelargoniums*, &c. &c., about which we shall have occasion to speak shortly.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION.

THIS excellent Institution holds its eleventh Annual Dinner at the London Tavern, Bishopsgate Street, on Monday, June 12th, when Thomas Grissell, Esq., has consented to preside.

This Institution has especial claims on all those who are interested in gardening pursuits, inasmuch as its sole object is the support of aged and indigent gardeners and their widows, by means of an annual pension; and the increasing number of candidates at each election shows how eagerly it is sought after by most deserving applicants; deserving, not only on account of the good character they have borne, but because they are reduced to the lowest state of poverty, none being eligible who receive relief in any other way. A large number is now enjoying this pension, and we have witnessed the joy it has afforded a worn-out and broken-down gardener, when he has been told of the successful termination of a contest, by which he has become entitled to a pension, —small though it be,—of sixteen pounds a-year. Not many years since, one worthy old gardener was a candidate, and contested an election, and would have stood for a second contest, but in the meantime he was elected a pensioner on a wealthy charitable foundation; but grateful to the Gardeners' Benevolent Institution, he became, and continues, an annual subscriber of one guinea, and his son, a life subscriber of ten guineas. This and other circumstances connected with the Institution, show us how many a heart the Society has gladdened, and we most earnestly recommend it to the notice of our readers. The Committee gladly acknowledge donations of any amount, and, however small, they would be acceptable and gladly received by Mr. E. R.

Cutler, the Secretary, 97, Farringdon Street, London. The Institution is under the especial patronage of Her Majesty and His Royal Highness Prince Albert, who are liberal contributors to its funds; and the Earl of Carlisle, Charles Dickens, Esq., Sir Joseph Paxton, and many other eminent men have honoured the Society by presiding over its annual dinners.

ON NUMBERING TALLIES.

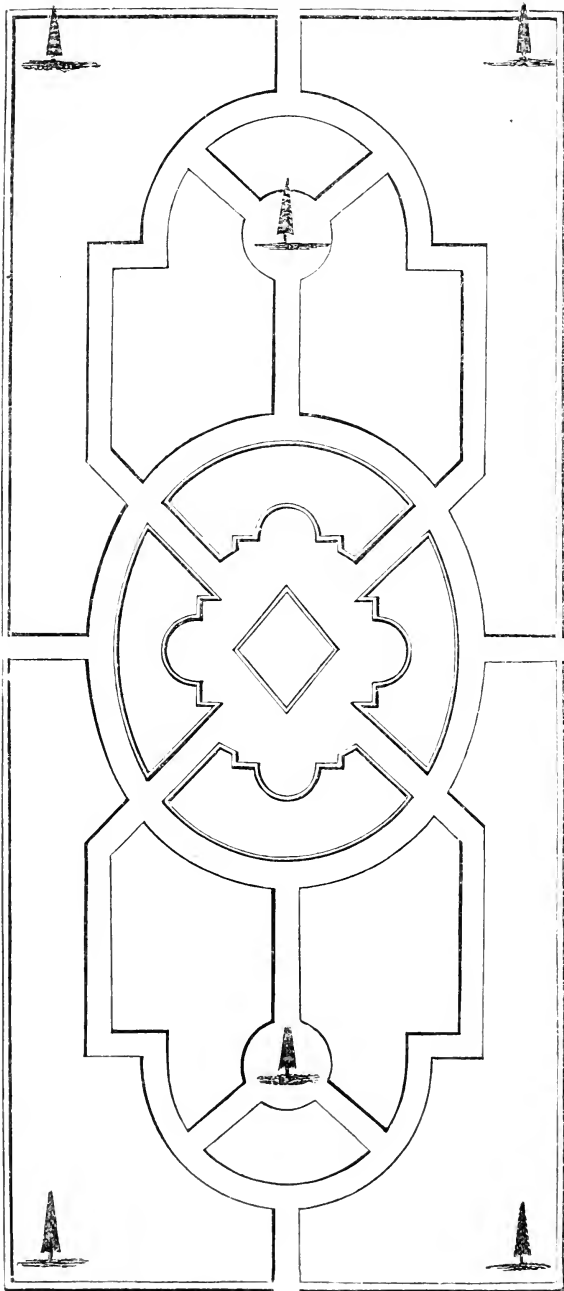
HAVING just seen "Indicator's" new plan of numbering Tallies, I beg to offer you the following method, which I have employed for several years for Polyanthuses, Carnations, and Picotees, and which seems to me much more simple, more easily understood, and much less likely to lead to errors, than "Indicator's" method. My plan is this: any number under ten is cut on the flat surface with a knife in Roman numerals thus, VII. for seven, IX. for nine, and so on; ten is marked by a simple notch *on the side* of the tally, 20 is marked by *two* notches, and so on to the highest number. According to this simple method, a variety standing in one's catalogue as No. 35, requires a tally with three notches *on the side*, and V. in the *front*; one catalogued No. 28, requires a tally with two notches on the side, and VIII. in front, and so on for any number.

W. HARRISON.

[In our opinion there is no plan equal to that we adopt,—a plain label with white-lead, and written on with a pencil.—ED.]

DESIGN FOR FLOWER GARDEN.—No. II.

THE annexed design may either be carried out on a large or small scale; that is to say, the pattern may occupy either the whole of a given compartment, or may be arranged in pairs, or fours, according to the size of the ground. If more than one is laid down, they must be devised by walks of proportionate width to the design. The walks dividing the beds in our present figure are eighteen inches wide, and should be laid with bright coloured gravel. Supposing the design adapted to a large piece of ground, these walks might be three or four feet in width; in which case it would form an excellent Rosery or American garden, for either of which the lozenge shaped bed in the centre might be changed, and an oval basin for water, or a fountain, substituted. As a parterre for summer flowering plants, various arrangements as respects the planting of it may be made, according to the taste or fancy of the owner. If the space should appear too large for flowers—supposing all the beds filled—the outside one may be grass, surrounded by a gravel walk, or planted with Tamarisk-leaved Savin, kept close to the ground; the close habit of which, and its beautiful dark green colour, will contrast well with the bright coloured flowers within, and form a tasteful frame to the picture.



As this design, like the one in your last number, is strictly architectural, the embellishments should partake of the same character. A stone bordering, not less than three inches wide and high, should separate the beds from the walks, in the inside of which a strip of gravel should be laid. These border stones may either be simply rounded off or, if the bed adjoins buildings, may be moulded to harmonise with the architecture of the building. The trees shown are Cypress, which should likewise be carefully kept in symmetrical order, and thus preserve the unity of expression which such gardens should always maintain.

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

THE first great fête of this Society for the present year took place on the 24th ult. The morning was showery; but the afternoon, though cloudy and doubtful, remained fine, and permitted a numerous and fashionable company to move about, and enjoy the delightful music of three military bands, under the most comfortable circumstances. The exhibition itself was at once striking and brilliant. The new plan of arranging the plants on grassy terraces under canvas, instead of on stages as heretofore, proved eminently successful. From whatever quarter one entered, the prospect was extensive, varied, and grand. Here a bold point or promontory was studded with magnificent specimens of the "Queen of Flowers;" of which both nurserymen and amateurs contributed most excellent collections; there might be seen a bank of glowing Azaleas; while of Stove and Greenhouse plants the display was unusually abundant and fine. Orchids were arranged on the lower courses of terraces, as were also Pelargoniums, which were numerous, and with few exceptions excellent. In some of the recesses or cool corners, the eye rested with delight on beautiful green fronds of our native Ferns, of which there were one or two collections, and one of Exotic species. Cape Heaths, too, scattered over the banks in lavish profusion, helped to contribute to the gaiety of the scene, as did also, in their own peculiar way, Calceolarias, Cinerarias, and Pansies, the latter both in pots and in a cut state. Of new things, there could scarcely be said to be any, except in the way of florists' flowers, some account of which we will presently proceed to give, under their respective heads. Messrs. Veitch had *Impatiens Jerdonia*, which we have already figured and described, as has also been *Gesnera Donkelaari*, which was well shown. From Farnham Castle came a *Gongora* called *Cymbiformis*, an Orchid, with a long drooping spike of flowers, not very remarkable for beauty. Mr. Woolley sent a new white *Bletia*; Messrs. Henderson, of the Wellington Nursery, *Eucharis candida*; Messrs. Henderson, Pine Apple Place, a dwarf shrubby orange *Gompholobium*, *Didiscus pilosus*, and one or two other plants; and Messrs. Fraser, a *Salvia*-like plant, called *Brilliantaisa owariensis*.

Collections of Pelargoniums were numerous and fine, and they made, as they invariably do here, a very excellent display. Nurserymen:

1st for twelve, Mr. Turner, with Sanspareil, Colonel of the Buffs, Challenger, Exactum, Mochanna, Magnificent, Lablache, Rosamond, Queen of May, Enchantress, Virgin Queen, Magnet. Second, Mr. Dobson, with Governor, Leah, Purpureum, Vanguard, Gulielma, Arethusa, Pasha, Delicatum, Glowworm, Empress, Rosamond, and Ambassador. Mr. Gaines also showed in this class. Amateurs: 1st. for ten, Mr. Nye, gardener to E. Foster, Esq., with some very compact and uniform plants, consisting of Purple Perfection, Alibi, Lucy, Enchantress, National, Ariel, Eleanor, Queen of May, and Rosa; these were flowers of the very finest quality, and mostly new varieties. Second, Mr. Winsor, gardener to F. Steel, Esq., Kiddepore Hall, Hampstead, with Constance, Clio, Norah, Emily, Forget-me-not, Lalla Rookh, Virgin Queen, Ariadne, Prince of Orange, and Enchantress. Third, Mr. Robinson, of Pimlico. Two other collections were also exhibited in this class. Fancies: 1st, for six varieties, Mr. Turner, with Madame Sontag, Madame Rosati, Defiance, Delicatum, Anais, and Princess Maria Galitzin. 2nd Mr. Gaines, with Defiance, Fairy Queen, Delicatum, Signora Casolini, Odoratum Magnificum. 3rd, Messrs. Henderson, Pine Apple Place. Amateurs: 1st. Mr. Winsor, with John Bull, Duchesse d' Aumale, Fairy Queen, Statiaski, Madame Miellez, and Princess Maria Galitzin. These were excellent plants. 2nd, Mr. Smith, Dartmouth House, Hampstead, with Advancer, Jenny Lind, Empress, Alboni, Triumphant, and Hero of Surrey. 3rd, Mr. Robinson, with Mirandum, Jenny Lind, Fairy Queen, Delicatum, Advancer, Princess Maria Galitzin. This class consisted of no fewer than nine collections, all of which were very creditable to their respective growers. Among seedling Pelargoniums were Grand Sultan (Turner), dark top petals, rich red lower ones with a dark spot on each, a striking flower of good habit; Pandora (Foster), similar, but less striking in colour, and without spot on the lower petals; Una, a good useful white in the way of Pearl; Petruccio (Foquette), a large showy crimson, and free, but coarse and thin; Conqueror (Beck), somewhat similar to Grand Sultan and Pandora in colour, and of good quality and attractive; Wonderful (Hoyle), a large flower, of fine colour, and first-rate form; white centre, rich top, darker than Leonora, and will be a favourite; Serena, dark, with white centre, bright rose lower petals, dark top, even carmine margin, a flower of the best quality, free and constant; Lord Raglan, in the way of Salamander, very large, and well formed, very free, and of good habit; an excellent exhibition plant; Topsy, well named, top petals all black.

Calceolarias: 1st, Mr. Carmichael, gardener to J. Tugwell, Esq., of Bath, with Earl of Derby, Bass Rock, Richard Cobden, Sir C. Napier, Novelty, and Napoleon. These were compact in growth and well diversified in colour, a point which did not belong to Mr. Constantine's group, which was therefore placed second, although his plants were better grown than those from Bath. Mr. Clarke was 3rd; Mr. Gaines also staged six plants. Mr. Price, gardener to L. Lloyd, Esq., of Hampstead, sent a seedling suitable for bedding purposes, for which a certificate was awarded. It is of a rich bright colour, and will doubtless prove an acquisition.

Cinerarias were scarcely in such good condition, either as regards growth or bloom, as they should have been. 1st, Messrs. Henderson, Pine Apple Place, with Mrs. Sidney Herbert, Lady Camoys, Marianne, Lady Hume Campbell, Beauty and Mrs. Beecher Stowe. 2nd, Mr. Clarke. Amateurs: 1st, Mr. Ward, with Newington Beauty, Cerito, Vicar of Wakefield, Rosetta, David Copperfield, and Estelle.

Pansies in pots were extremely good, the flowers generally being in beautiful order. 1st, Mr. Turner, with Earl of Mansfield, Marion, Pandora, Sir John Cathcart, National, Emperor, Monarch, Memnon (a fine dark self). 2nd, Mr. Bragg; 3rd, Mr. Dobson. There were also several stands of cut flowers, the best of which came from Mr. Turner, of Slough. Of seedlings there were one or two promising flowers, the most conspicuous being Lord Palmerston, described by us on a former occasion. Lord John Russell, yellow ground with an intensely dark striking centre; Royal Albert, rich shaded plum, a very striking flower. Satisfaction, which has also been described, and Duchess of Sutherland, a clear white ground, with a rich dark centre; very fine.

Messrs. Ivery and Son, of Dorking, had *Rhododendron ponticum coccineum*, a sort with the colour of *arboreum*, and the habit and hardiness of *ponticum*. Also some Azaleas, among which "Gem" was particularly well-named, being very striking in colour, smooth and beautifully formed—in fact, a perfect gem.

THE GREAT NATIONAL TULIP EXHIBITION.

IT affords us much pleasure to state that this Society's exhibition (held in the Regent's Park Botanic Gardens, on the 24th ultimo, in connection with the Royal Botanic *fete*) was eminently successful in every respect; but, as we predicted, the southern beds were much past their best. This, however, was fully compensated for by the large number of fine flowers brought from the midland and northern counties. We have also the pleasure to announce that the meeting of the Great National Tulip Society for 1855 will be held at Cambridge. The following are the awards, but the names of the winning flowers shall be given in our next:—

CLASS A. Six dissimilar blooms: 1st, Mr. James Parkins, Derby; 2nd, Mr. R. J. Lawrence, Hampton; 3rd, Mr. John Thorniley, Heaton Norris, near Manchester; 4th, Mr. J. F. Wood, Nottingham; 5th, Mr. Charles Spencer, Thurlstone, near Nottingham.

CLASS B. Twelve dissimilar blooms: 1st, Rev. S. Cresswell, Nottingham; 2nd, R. H. Betteridge, Esq., Abingdon; 3rd, S. Sanders, Esq., Staines; 4th, Mr. John Thorniley; 5th, J. Hunt, Esq., Wycombe.

CLASS C. Eighteen blooms: 1st, Mr. R. J. Lawrence; 2nd, Mr. R. F. Wood; 3rd, Mr. C. Turner, Slough; 4th, Mr. W. Bragg, Slough; 5th, Mr. Willmer, Sunbury.

SINGLE SPECIMENS.

CLASS D. Feathered Bizarres: 1st, Mr. J. Godfrey, Chellaston, Derbyshire; 2nd, Mr. Lymbery, Ison Green, Nottingham; 3rd, Mr. J. Godfrey; 4th, Mr. Charles Spencer; 5th, Mr. Thomas Houghton, Hunshell, Nottingham; 6th Mr. Thomas Houghton.

CLASS E. Flamed Bizarres: 1st, Mr. J. Godfrey; 2nd, do.; 3rd, Mr. R. J. Lawrence; 4th, Mr. J. Thorniley; 5th, do.; 6th, Mr. C. Spencer.

CLASS F. Feathered Bybløemens: 1st, Mr. W. Lymbery; 2nd, Mr. J. Godfrey; 3rd, Rev. S. Cresswell; 4th, Thomas Adams, Esq., Derby; 5th, Mr. Charles Spencer; 6th (name shall be given in our next).

CLASS G. Flamed Bybløemens: 1st, Mr. Thomas Houghton; 2nd, Mr. Charles Spencer; 3rd, Mr. J. Thorniley; 4th, Rev. S. Cresswell; 5th, Mr. W. Lymbery; 6th, ditto.

CLASS H. Feathered Roses: 1st, Mr. J. Godfrey; 2nd, Mr. Charles Spencer; 3rd, Mr. J. Godfrey; 4th, ditto; 5th, Mr. Thomas Houghton; 6th, Mr. W. Lymbery.

CLASS I. Flamed Roses: 1st, Mr. J. Godfrey; 2nd, Ditto; 3rd, Mr. Charles Spencer; 4th, Mr. James Parkins; 5th, Mr. W. Lymbery; 6th, ditto.

CLASS K. Six Dissimilar Breeders: 1st, Mr. J. F. Wood; 2nd, Mr. J. Parkins; 3rd, Mr. W. Willison, Whitley; 4th, Mr. C. Turner.

PREMIER PRIZES. *Feathered Rose, Mr. J. Godfrey; Flamed Rose, Mr. C. Turner; Feathered Bizarre, Mr. J. Godfrey; Flamed ditto, Mr. J. Parkins; Feathered Bybløemen, Mr. Charles Spencer; Flamed ditto, Mr. J. Godfrey.

CERTIFICATES OF MERIT FOR SEEDLINGS to Mr. R. J. Lawrence, for a Feathered Bizarre, "George Hayward;" to Mr. Hardy, of Warrington, for a Feathered Bizarre, "King Arthur;" and Mr. W. Willison, of Whitley, for a Rose breeder.

MRS. LAWRENCE'S PLANTS.

SINCE our last issue, the magnificent collection of plants at Ealing Park, has been sold off by Mr. Stevens. They realised upon the whole fair prices. Azaleas sold best, other greenhouse plants next, and stove plants worst. Many of the latter, indeed, did not fetch half their value. The principal buyers were the Earl of Stamford and Warrington, Mr. Upton, of Forest Hill; H. Colyer, Esq., of Dartford; Mr. Johnston, of Oak House, Fulham; the Crystal Palace Company; Mr. Basset, of Stamford Hill; Mr. Turner, of Slough; Mr. Speed, of Edmonton; Mr. Dods, gardener to Sir J. Cathcart, Bart.; Mr. Veitch, of Chelsea; Mr. Walker, of Acton; and Messrs. Fraser, of Lea Bridge. Three of the houses were also sold for 75*l.*, 100*l.*, and 105*l.* respectively. Two smaller ones, eighteen feet long by fifteen feet wide, with hot water pipes, &c., fetched each only 8*l.*

* The same flower as 1st prize in Class H.

CALENDAR FOR THE MONTH.

Auriculas. There will be but very little to do this month beyond keeping the plants clean, both of green-fly and decayed foliage. The plants should not be crowded where they stand on a north border, or be allowed to have too much wet.

Camellias should be watched, and, as the growth gets matured, more air admitted, accompanied with a larger share of light; this will induce the formation of bloom buds. If in a house, however, with a south aspect, shading must be resorted to during bright sunshine. Syringe as usual.

Carnations and Picotees. A very important operation to the exhibitor, viz., disbudding, will have to be attended to this month. Some of the early kinds, from the forwardness of the season, should have been gone over late in May; therefore no time must be lost in going over the whole stock once a week, removing such side buds as are forward enough, and that it is necessary to displace. Two, with the centre bud, is a full number for any plant to carry. If blooms are required large for the purpose of exhibition, a less number will be sufficient. They should not be disbudded to their fullest extent the first time going over them, as some of the buds may fail. Keep down green-fly by brushing the points of the shoots with weak tobacco water, and pure water alternately to cleanse the points of the young shoots. As the blooming shoots grow very fast it is necessary to go over the plants daily to see that the bass that supports them to the sticks is loose, and to give them fresh ties. An early but a good bloom is tolerably certain this season.

Cinerarias. If sufficient seed has been saved, cut down all not already done, and stand them in a cool north aspect. A little very fine soil should be placed round the old stools to encourage the young shoots that break from the bottom to root. Save seed for winter blooming.

Cold Frames, now emptied of their winter stock, may be successfully used in growing Balsams, and other annuals, Fuchsias, &c., or late crops of Cucumbers and Melons.

Conservatory and Show-house. The conservatory should now be kept thin of extra plants, to allow for the free growth of the proper inmates, which will require air plentifully. Water inside borders freely. The regulation of climbers should take place occasionally, allowing them, however, to grow in natural form, as much as possible. A north house is at this season the best structure for showing plants in bloom.

Dahlias. The ground having been prepared as directed, these should be planted out, about five feet apart; five feet six inches will not be too much from row to row, for the strong growing kinds. Four feet six inches will be sufficient for a few kinds, such as Queen of Whites, Sir C. Napier, and flowers of similar habit; by this arrangement space can be saved. Use good rich soil, mixed with a little leaf-mould to turn them out in, this will give them a good start. Secure the plants to stakes when planted out. Dahlias suffer

more from the first rough weather after planting out than when they become a little hardened; therefore, care should be taken to protect them as much as possible. Neither slugs nor snails will be very plentiful after so much dry weather, but they should be looked after near hedges on damp mornings. Commence trapping earwigs as soon as the plants are turned out; if mild and dry, water over head every evening.

Flower Garden and Shrubbery. Neatness is the great point to be attended to, now that the principal planting out for the season is finished. Keep the grass of the lawn and gravel-walks in best trim by often mowing and sweeping the former, and well rolling the latter, which should be fresh surfaced if necessary. Attend to watering the newly planted stuff in dry weather, and make up failures from the reserve. A few annuals should now be sown for an October bloom. Look to trellis-plants, and tie or otherwise secure them from blowing about; tall growing herbaceous plants will likewise require stakes.

Forcing. When the early Grapes are cut, apply the syringe, for with us the red spider is unusually abundant; and give the same attention to preserving the foliage on, preceding the ripening of the crop. Stop and tie in the late Vines, and proceed with thinning as before advised; inside borders will require water oftener. *Peaches.*—Suspend a netting underneath the Peaches, &c., to catch the fruit, should any fall between the periods of gathering. It is better to look them over frequently, as they should not be allowed to hang on the tree till they got so ripe. *Pines.*—Shade slightly in very bright weather; water, and often, now they are swelling off, diminishing it as the fruit approaches ripeness. Air liberally, and syringe, once or twice daily, according to the state of the weather. Repot successions, and allow more room for them, as they will now grow fast. *Melons.*—Earth up successional crops, aad train and stop, as the Vines advance; give less water to the first crops, as the fruit gets ripe. Shading with some kinds of glass is absolutely necessary, or the plants will suffer. Sow for the autumn crops.

Hardy Fruits. The frost has nearly destroyed the entire crops with us, and we see, in most other places. Very disheartening this, but makes our remarks on orchard-houses, &c., more worthy of attention; for without a protection of something in that way, no dependence can be placed on a crop. Nail in the young shoots when sufficiently advanced; and follow up the war against the green and black fly; diluted tobacco-water is the best remedy, if clean water fail.

Heaths and Epacises. Many kinds may now be transferred to pits and frames, where they will thrive better, during the summer months, shading them from the hot sun; any done blooming should be cut back slightly, to insure a bushy habit, and kept in a shady place till they commence to grow. Removing the young and early blooming stock to frames will permit plants in the Heath house to stand thin, which will be much to their advantage. Shading and watering as before.

Hollyhocks. Secure these with strong stakes, driven a considerable distance into the ground, mulch them with partly rotten manure, and keep them well watered. Side shoots should be taken for cuttings

when ready, as the Hollyhock strikes freely at any season with proper management. A large stock can only be procured by commencing early, and continuing to propagate throughout the season.

Kitchen Garden. Sow all the various vegetables required for succession; and attend to the requirements of those progressing. Water Cauliflower, Spinach, Lettuce, &c., freely in dry weather, to promote succulency. Do not cut Asparagus beds too much after the middle of the month. Plant out early Celery in rich trenches, and water well; earth up Potatoes, and thin out other root-crops.

Mixed Greenhouse. Most of the common hard-wooded plants should either be removed to a sheltered place out of doors, or to pits; this will make room for Balsams, Fuchsias, Neriums, Crassulas, &c., which with Geraniums will make the house gay for a considerable time.

Orchids. Shade, water, and a very humid atmosphere during this their period of active growth, are essential; the Mexican species should, however, have the cooler end of the house.

Pansies. Continue to put in cuttings largely, many plants die off in July, if the weather is unfavourable; if a young stock is provided, this loss will not be felt. Sulphur the plants if mildew should appear; save seed from the best kinds, those with smooth stout petals and well defined colours.

Pelargoniums. June is the best month to judge of the quality of Pelargoniums generally a few kinds are best in May; therefore take notes both at home and at the exhibitions, to secure a good selection of the best varieties for another season. There is little to do this month, further than to prolong the bloom by careful shading, watering, and keeping the bees out of the house. Seedlings will be blooming towards the end of the month, and should be carefully watched, noticing their defects, to prevent the trouble of growing too many kinds the second year. It is necessary to grow them two seasons to finally ascertain the improvements on existing varieties. Fancy varieties should be propagated this month. These should be struck in a cold frame. If allowed to flower long before cutting down they are not so easily struck.

Pinks. Water freely if the weather should be dry. Commence propagating towards the end of the month. Pinks strike very freely under small glasses, on a raised hot-bed. Care should be taken that the heat is not strong.

Roses, are now showing their blossoms, which will be much improved by liquid manuring; mulching, too, in dry seasons is very beneficial. If the preservation of the early flowers is desirable, the Rose maggot must be closely looked after; the green-fly, too, should be kept down, and where mildew shows itself, first syringe with tobacco-water for green-fly, and then dust with sulphur vivum; a tin pepper-box is a cheap and efficient duster. Roses in pots will require attention in watering; the syringe is best if clear rain water is at hand, and the blossoms not too much expanded.

Tulips. Take the canvas off, and allow them to have all the weather. They may be taken up towards the end of the month, the bloom being off early this season.



Tulip

THE TULIP.

OUR readers are doubtless aware that the annual meeting of the National Tulip Society was held in London this spring, a detailed report of which will be found in another page. Our present illustration was selected from the successful flowers exhibited on the occasion in question, and was admitted by all the growers present to be a noble addition, as well as by far the finest of the new varieties. It deservedly received the highest award the Society offered for seedlings. Feathered flowers of any class are much desired, but when we get a feathered bizarre, with the bright richness of the yellow, as faithfully shown in the representation, combined with the dense feathering of deep red which this flower possesses, it is indeed a great acquisition. In addition to these good qualities, it is a full-sized flower of the finest form. George Hayward was raised from a Polyphemus breeder, fertilised with Pompe Funebre, the seed of which was sown eight years ago. It was broken for the first time in 1853; six breeders and four broken flowers comprised the whole stock; of the latter, two are feathered and two are flamed. It was raised by Mr. R. J. Lawrence, of Hampton, Middlesex, who has long been known, not only as possessing one of the finest collections of Tulips in this country, but also as one of our most successful raisers. What Tulip grower is there that does not possess and admire that beautiful old flower, Lawrence's Polyphemus, with its score of aliases? A finer flower of its class, old as it is, cannot easily be met with. This is only one of a large number of established favourites that have been produced at this well-known locality for good Tulips.

It was the opinion of many, a few years since, that the cultivation of the Tulip was declining; it may have been so in some localities, but we do not hesitate to state that it is greatly increasing at the present time, and when we recollect the great beauty and variety displayed in a well arranged bed of Tulips, producing an effect which all must admire, we should certainly feel greatly surprised if such was not the case.

JUNE EXHIBITION AT CHISWICK.

THE Horticultural Society held their second grand exhibition on the 3rd ult., in consequence of the opening of the Crystal Palace taking place on the 10th, the day originally fixed on by the Society. Unfortunately the 3rd was gloomy, and had been preceded by several raw, cold days, which no doubt prevented that large influx of visitors from attending which were wont to crowd the June fêtes.

We shall merely notice first, that as regards the exhibition itself, it was much more extensive than the May show; and secondly, that as regards the collections of plants, they presented that universal sameness which it becomes necessary now to notice, and which appears to us more palpable every year; both the exhibitors and the Society may be certain that the same plant seen year after year loses its novelty with the public, let it be ever so beautifully grown and bloomed. The exhibitors appear chiefly in fault here, for if they would infuse the charm of *novelty* more frequently into their collections, instead of clinging with marvellous tenacity to a limited number of plants usually seen—merely, we believe, because so-and-so, the great exhibitor, grows them—they would gain a point, which the judges would be glad to reward; but unless some spirited exhibitor changes his tactics, and beats his competitors by growing a fresh class of plants, we have not much hopes of a change being effected, so wedded appear the great body of exhibitors to certain plants, and so partial to imitation. In reference to this, we think that both the societies would do well (by way of giving encouragement to variety in collections), to give specific prizes additionally to such collections as comprised a certain proportion of plants, not generally cultivated for exhibition. We doubt not this would in some degree help to introduce a number of fine things into notice, not often seen on the exhibition tables, but which only want the same care and attention as are bestowed on much less showy plants, to render them universal favourites.

But to return from our digression. The Orchids were numerous; generally in fine condition as to bloom and health; and in addition, presented a well arranged contrast as regards colour; and we may adduce them as a proof, how immensely more interesting they were to the general public than the collections of plants and Heaths. We think that, taken altogether, we never saw a better display of this favourite class of plants. To particularise each individual collection would take up more room than we can afford; we shall therefore merely notice the more prominent points as we proceed. The most showy and striking plants in Messrs. Veitch's group were *Cattleyas Mossiæ*, (Lobb's variety) and *superba*; *Sobralia macrantha*, *Aerides affine* and *odoratum purpurescens*, *Dendrobium Devonianum*, and *Cypripedium barbatum*; and Messrs. Rollisson, in a fine collection, had some splendid *Cattleyas*, a fine *Brassia verrucosa* and *Cypripedium caudatum*. The collections exhibited by private growers contained many choice and well managed plants; Mr. Williams had Mr. Warner's variety of *Aerides crispum*, a fine thing; the old *Calanthe*

veratrifolia, *Phaius grandifolius*, and some fine additional *Aerides*, *Phalenopsis*, and *Cattleyas*. Mr. Woolley's collection, which was a near second, had some *Cattleyas* in beautiful condition, and made a gay appearance; some good *Dendrobiums*, a *Saccolabium*, and *Barkeria spectabilis*. We remarked a *Dendrobium clavatum*, three fine *Aerides*, and others, shown by Mr. Clark; some fine *Stanhopæas* and *Anguloa Ruckeri* by Mr. Dods.

Beautiful as many of the *Roses* in pots were on this occasion, as a whole they were much inferior to what they were in May. In Messrs. Lane's group were some charming specimens; but other exhibitions were scarcely above mediocrity. We remarked the Tea Rose, Adam, in excellent condition, the blooms being extremely large and fine. Paul Perras, *Chenêdole*, and *Coupé de Hébe* in the Hybrid Bourbon class, were everything that could be desired in the way of the Queen of Flowers. Paul Ricaut, from A. Rowland, Esq., was one of the most desirable of *Roses*, its fine form and brilliant colour commanding universal attention. Not even *Géant de Batailles* was so bright by far; but we must admit that the latter had in a great measure lost its colour, and was all but out of character. *Caroline de Sausal*, we need not say, is a comparatively new and fine Rose; and few deserve the character of "profuse bloomer," better than Miss Glegg, although, as a matter of course, its white blossoms are not so striking as those of deep crimson or scarlet sorts.

New things were scarce. The most important were a woolly white flowered *Hoya*, from Messrs. Henderson, of Pine Apple Place, and the bright golden yellow *Leptosiphon aureum*, from Messrs. Veitch. The latter is much more brilliant and rich in colour than *L. luteum*. The *Uropedium Lindenii* shown was more singular than beautiful. Mr. Hamp's blue shrubby *Lobelia* was not in a condition to judge correctly of its merits.

Plants with variegated or otherwise handsome foliage have now become quite numerous, and we are glad to find them forming an important item of all great floral exhibitions, for they wonderfully help to create variety, of the want of which we have had to complain in the commencement of this report. As Messrs. Veitch's plants of this class were not only exceedingly attractive as a whole, but individually really beautiful, we have endeavoured to find room for their names, which are as follows:—*Aphelandra squarrosa* Leopoldi, *Ananassa sativa variegata*; *Anætochilus Lobbianus*, Lowi, ditto variety; *setaceus*, s. *intermedius*, *cordatus*, *xanthophyllus*, and *striatus*; *Aspidistra lurida variegata*, *Billbergia Morelliana*, *Begonia Thwaitesi* and *rubrovenia*, *Caladium bicolor majus* and *rubricaulis*, *Cissus discolor*, *Croton variegatum*, *angustifolium variegatum*, and *pictum*; *Diëffenbachia maculata*, *Duranta Plumieri*, *Dracæna nobilis* and *terminalis*, *Goodyera pubescens*, *Hoya variegata*, *Hydrangea japonica variegata*, *Maranta albo-lineata*, *Plectranthus concolor picta*, *Sonerilla species* (two varieties), *Tillandsia zebrina*, and *Vriesia speciosa*. This eminent firm also sent a singular and fine *Nepenthes*, called *lanata*.

Of *Pelargoniums*, there was a much better display than in May. In the class of 12 varieties in 8-inch pots, Mr. Charles Turner was

first, with superior plants of Hoyle's Majestic, do. Beatrice, do. Magnet, do. Mochanna, do. Colonel of the Buffs, do. Medora, Foster's Enchantress, do. Queen of May, do. Optimum, Exactum, Virgin Queen, and Magnificent. Mr. Dobson, of Isleworth, was second, with well bloomed plants, consisting of Prince Arthur, Gertrude, Harriet, Magnet, Painted Improved, Governor, Exhibitor, Delicatum, Purpureum, Ambassador, and Rebecca. Mr. Mockett, gardener to J. Allnut, Esq., was third. Mr. Gaines, of Battersea, was fourth, with a collection chiefly made up of old varieties, and not remarkable for good bloom. A silver Knightian medal was awarded to Mr. Gaines for six French Geraniums. These were Gloire de Bellevue, Col. Foissy, Gustave Odier, Madame de Lamoricière, Jacques Duval, and Triomphe de la Tour. There is nothing remarkable about this class of Geraniums except coarseness and want of form and other properties so eagerly sought after by the Geranium grower. They are singularly spotted and marked, but as yet they have nothing else to recommend them.

In fancy Geraniums, six varieties, Mr. C. Turner was first with Miss Sheppard, Delicatum, a very fine plant, Perfection (also "perfection" in growth), Madame Sontag, Triumphant, and Madame Rosati. Mr. Gaines was second, and Messrs. E. G. Henderson and Son third.

In seedling Geraniums Mr. Dobson exhibited Conqueror (Beck's), a fine crimson, with dark upper petals, and dark marking in lower ones, also Dido, Fidelia, and Clara. Mr. C. Turner had Petruchio (Foquette's), a large flower, very large in truss, and a free bloomer, also Serena (Hoyle's), a finely formed flower, of good substance, and free. Messrs. E. G. Henderson and Son sent seedling fancy Geranium Cloth of Silver, very delicate blush white, with a bow of pale pink in the middle of upper petals; it was blooming profusely, and is a pleasing variety; also Bridal Beauty, clear white, with small pale carmine blotch in upper petals; not well formed, but a free bloomer. It is in the way of Delicatum, but smaller.

Among other things we noticed a good Verbena for bedding purposes, named Purple King (Reeves's), being of a good purple colour, short-jointed, dwarf habit, and a free bloomer. Also Phlox General Radetski, a beautiful variety of Drummond's, white with bright carmine stripes, promising to be a most desirable addition to bedding plants. The colours are very clearly defined and bright.

The show of Fruit was again extensive, and since exhibitors may exhibit as they please, several took the opportunity of showing a collection, which added materially to fill the tables. The Editor of the *Gardeners' Chronicle* informs his readers that the quantity of fruit exhibited is owing to the new regulations of the Society's schedule; on the contrary, we think it attributable to the great progress made of late years in this department of gardening. The forcing of fruit is now ten times more extensive than it was ten or a dozen years ago, and the number of fresh names we see attached to the various productions exhibited, confirms us in this opinion. Although, as we have just observed, the show of fruit was a large one, there were not many things to note for special commendation. Mr. Fleming showed a good miscellaneous collection, which was awarded a gold Banksian medal.

In the collections shown by other exhibitors, we noticed some good Hamburgh Grapes, fine Noblesse Peaches, and a new seedling Strawberry, from Mr. Patterson, gardener to the Baroness Wenman, also very fine Black Prince and Hamburgh Grapes, and beautifully grown and coloured Peaches and Nectarines, from Mr. Hill; this collection, though not extensive, was of great merit, from the superior quality of the articles exhibited. There was a Black Prince Pine, handsome to look at, from Mr. Taylor; a fair sized Providence and Black Jamaica from Mr. Chapman; some clean but not large Providences from Mr. Robinson; and a Providence (the heaviest, we believe) from Mr. Turnbull, who showed some finely grown Muscat Grapes, which, however, were by no means ripe.

We were surprised to see so few good Queen Pines exhibited; in this particular the show was inferior to many we have witnessed; nor yet were any of the Pines remarkable for great weights. Mr. Frost, of Preston Hall, had very fine Black Hamburgh Grapes; and there was a basketful from Oakhill—inferior, however, to those shown from the same place in May. We noticed, besides, some good Black Prince Grapes from Mr. Martin, and beautiful Hamburghs from Mr. Mitchell, of Brighton. There were not many Peaches or Nectarines exhibited singly. Mr. Sparrow had some nicely grown Nectarines. Of Melons there were three King's Green-fleshed in Mr. Tegg's collection, which looked like good fruit. Mr. Fleming had an improved hybrid, which the judges reported to be excellent; and Mr. Henderson had a fine Trentham Hybrid.

We have only time to notice Mr. Patterson's new seedling Strawberry; it is in the way of Kitley's Goliath, to which it bears some resemblance. The judges reported its flavour to be equal to its fine appearance. Cherries were numerous, but as the season was advanced for forced Cherries, they require no particular notice. The same may be stated of Figs, which were generally fine and well ripened.

GLASS WALLS VERSUS BRICK WALLS.

IN a very able article in your last number on this subject, by Mr. Saul, I see he condemns the modern applications of glass walls and orchard houses, preferring the common brick wall to them: will you allow me space for a few words of comment on some parts of his statements, from which I differ? I may here add that, having read the previous remarks in the *Florist* on this subject, and having recommended orchard houses and glass coverings to walls to my employer, I feel anxious to possess myself fully on their merits or demerits before going much further on with them.

At the end of the article in question, Mr. Saul says, "When I consider the immense quantity of fruit which a good walled garden, well stocked with trees, annually produces at a little cost, I cannot believe they will ever give way to glass walls." Now, as the whole question hangs upon this point, I have taken it first: and again, Mr. S. affirms

in his statement "that for four seasons out of six he has had over-abundant crops, and an average one on the remaining two;" and this, he further informs us, is not confined to the crops under his own charge, "but is shared in equally by his neighbours in the West Riding of Yorkshire." Of course, I and your readers admit this; and the fact which he afterwards states of the frost of the 24th of April having done them so little damage appears to offer the key to the abundant crops obtained in the West Riding of Yorkshire.

But how stands the case in other parts of the country? Have we not proofs that the frost that night swept away all hopes of a crop of fruit from the gardens and orchards through a wide extent of country in the southern and western parts of England? From my own experience I can affirm that Apples, Pears, Plums, and Cherries, are all but entirely gone; and, going from the subject, that Potatoes, early Strawberries, and some other crops suffered equally; I had myself, and have seen others who had their Apricots and Peaches in great part killed, though protected with netting—the exposed part of the Apricots looking the next day as if they had been parboiled. My garden is certainly a cold one, but Peaches keep dropping off to this day, through injury received by the frost of the 24th of April.

Mr. Saul may be assured gardeners in the south are quite as anxious to get good crops of wall fruit at as little expense as himself, and take as much precaution to insure such; but year after year they are doomed to see their hopes destroyed, and the perplexities of their situation increased by the uncertain nature of the weather in spring; and I believe no gardener in his senses would recommend a large outlay for producing wall fruit if his exertions had been so favoured by the seasons as Mr. Saul and his brother gardeners in the West Riding appear, from his statement, to have been; but as our case is unfortunately the reverse of satisfactory, what, under the circumstances, is to be done?—are we to go on, year after year, without fruit to any extent, or recommend what experience shows will, for a moderate cost, supply the wants of our employers? I am not arguing so much for erecting glass walls as for covering existing walls with glass; and of this I can speak pretty confidently, as, from inquiries made, I hear the crops under the protection of glass against walls are everywhere safe this present season.

I need not inform your readers, how comparatively small a surface of fruit trees protected by glass, and the chances of a crop made sure, is sufficient to produce as large a quantity of fruit as a great extent of walling; and I cannot see how (at least, where failures are yearly taking place), any one could object to what seems to me, after due reflection, the cheapest way of obtaining good crops of wall fruit of the best kind. Of course it would be madness for Mr. S. to recommend such, when he can command good crops without such assistance. Mr. S. states earlier in his article—"if all the fruit trees in this garden were in glass walls, they would require all the labour I have to manage them; but as they are, a few weeks' nailing from one man, with what I do myself completes the whole." I am quite at a loss to see how trees, protected by glass, and consequently, when the operator

can work at them, *in the dry*, all weathers, should require more labour than trees on the open walls. Most assuredly a man dry and comfortable could tie in a tree to a trellis, or even nail it to a wall, as expeditiously as if he stood on the wet ground, and exposed to the open weather of winter or early spring. All gardeners know the great labour during summer with wall trees is to keep them clean; and casks of tobacco water and much labour are each season required to keep down the various aphides which infest wall fruit; whereas, when enclosed by glass, one or two fumigations with tobacco paper will be sufficient to destroy effectually this pest. In fact, on the score of labour, taking into account the facilities for working and training the trees in all weathers, I consider the balance fairly on the side of trees protected by glass. One word more and I have done—Fir-boughs, Fern, and the like, are useful protectors for trees before they bloom, but they should be removed immediately the blooms expand, or they will open weakly; now, from the period of blooming to a month after is just the time Peaches and Nectarines require protection the most from cutting winds, saying nothing of the alternation between a hot mid-day sun and a fall of the thermometer to below the freezing point by night. Are these coverings, then, to be kept on to the manifest injury of the trees by weakening the blooms and drawing the young shoots, or taken off and put on according to the state of the weather?—and if so, on which side is the expense and labour incurred? Surely on the side of Fir-branch & Co., canvas or rollers included—although these are a great step in the right direction—but, in my opinion, only a step, glass being the final ground to stand upon. I must apologise for so long a paper, but I have given my reasons for objecting to some of Mr. Saul's statements.

Dorsetshire, June 15, 1854.

J. M.

GOSSIP.

THE observations made in a former number, in reference to establishing a society for classifying and promoting the culture of hardy fruits, have been so far acted upon that the formation of a society to carry out the objects of the promoters is in progress. Sir Joseph Paxton has consented to become the President, and Robert Hanbury, Henry Bellen-den Ker, and Thomas Ingram, Esqrs., are, it is understood, to be vice-presidents; and we entertain no doubt that when the merits and claims of the proposed society become more generally known, a large accession of members will take place. Already many of the leading nurserymen in the fruit tree way, and other well known cultivators of fruits, have joined the society, and the list is daily increasing. The object which the society has in view may be considered a national one, inasmuch as encouraging the cultivation of hardy fruits, and the production of new varieties by hybridising, may be justly termed an encouragement to improve the natural resources of the soil. A wide field for the operations of the society is open, and no doubt they will take advantage of it, and in the end bring one of the most important

branches of horticulture into that position which the late lamented T. A. Knight wished it to occupy, but which, since his decease, has been nearly a dead letter with the Horticultural Society. As we are firmly of opinion it will effect a large measure of good, it has our best wishes for its success.

HARDY CONIFERS.—No. VII.

XIII. CRYPTOMERIA JAPONICA—THE JAPAN CEDAR.

THIS is a very handsome tree from China and Japan, closely resembling *Araucaria Cunninghamii* in its general appearance. In its native country the *Cryptomeria* forms a pyramidal shaped tree, with a remarkably straight trunk from 80 to 100 feet in height, detached trees being clothed with branches down to the ground. The branches are slender, erect at first, afterwards spreading, and in some instances assume a pendulous habit. Leaves small, sessile, linear, and entire, of a bright green colour, and thickly set on the branches. Cones small, round, and produced in abundance even on young trees.

For the introduction of this fine tree to Britain we are indebted to the Horticultural Society, whose enterprising collector, Mr. Fortune, first met with it in the neighbourhood of Shanghai, in 1843, to which district, however, it is not indigenous, as that gentleman informs us in a note on the *Cryptomeria*, but is found in abundance in the hilly district near Ningpo, and generally throughout the mountainous parts of northern China and the Japan Islands, sometimes constituting vast forests between 500—1200 feet elevation.

The wood of the *Cryptomeria* is stated to be of a white colour, compact, and very durable. That it produces a useful timber in China we may gather from its extensive application to building and domestic purposes. As the tree produces cones plentifully, even while young, plants will soon be cheap enough to try them as forest trees for the production of timber; it far exceeds the Larch in rapidity of growth. That it is perfectly hardy there is now no doubt; and, under any reservation as to its ultimate value as a timber tree in this country, it must make a valuable nurse, for which its light feathery foliage and rapid growth well adapt it. Commercially speaking, therefore, its cultivation should be encouraged by every means, till it can be supplied as cheaply as the Larch.

As an ornamental tree the *Cryptomeria* has considerable claims on the attention of the planter; it is the only hardy Conifer which can be said to resemble the Polynesian *Araucarias*. Its erect growth and graceful habit render its appearance prepossessing on the lawn. We have, however, noticed that young plants vary considerably in their habit, and the greenness and density of their foliage; where, therefore, plants are wanted for single specimens, some care should be taken in selecting those of a compact, bushy habit, and, if possible, such as retain their foliage green through the winter. Mr. Lobb's variety is valuable for ornamental planting in this respect.



CRYPTOMERIA JAPONICA. Height, 18 feet.

We are under obligations to Edmund Foster, Esq., of Clewer Manor, near Windsor, for permission to figure the fine tree engraved on the preceding page. Mr. Foster is well known as the raiser of many new varieties of Pelargoniums; but his collection of choice Coniferæ shows that equal attention is paid to their culture, for nowhere have we seen finer specimens of all the leading sorts of Pinus, including Cypresses and Junipers, than at Clewer Manor. We noticed a magnificent *A. Pinsapo*, 10 or 12 feet high, and many others equally striking.

XIV. *CRYPTOMERIA JAPONICA* VAR. *NANA*.

A dwarf variety of the species, forming a low bush, and making a suitable plant for rockwork.

SCOTTISH PANSY SOCIETY'S EXHIBITION.

THE tenth annual show of this Society was held in connection with the Caledonian Horticultural Society's June meeting. The attendance of growers and admirers of the Pansy was very numerous, and the competition for the liberal prizes offered was both spirited and large in amount. The arrangements made by the Horticultural Society for the convenience of exhibitors were such as gave universal satisfaction; and although some of the blooms shown on the occasion gave evidence of having suffered in quality from exposure to the cold cutting winds which prevailed for some time previous to the show, still, on the whole, the exhibition was a very fine one, which will be understood when we add that between 600 and 700 blooms were contained in the 48 competing stands which were brought forward. The following is a list of the awards:—

Nurserymen.—For the best eighteen blooms, (five competitors,) 1st, to Messrs. Downie and Laird, Edinburgh, with *Medora*, *Royal Standard*, *Father Gavazzi*, *Flower of the Day*, *Gliff*, *Miss Talbot*, *Yellow Climax*, *Beauty*, *Monarch*, *Countess of Strathmore*, *St. Andrews*, *Emperor*, *Minerva*, *Jubilee*, *Marchioness of Bath*, *Uncle Tom's Cabin*, *Sir J. Cathcart*; 2nd, to Mr. Thomas Douglas, Murchiston Park, whose stand contained *Diadem*, *Miss Talbot*, *Flower of the Day*, *British Queen*, *Sovereign*, *Emperor*, No. X., *Gliff*, *Marchioness of Bath*, *Fearless*, *Earl of Mansfield*, *Medora*, *Jubilee*, *Ellen*, *Aunt Chloe*, *Minerva*, *Mrs. H. B. Douglas*, *Duke of Norfolk*; 3rd, to Mr. Grieve, *Kaimes Cottage*, *Liberton*; 4th, to Messrs. White and Sinclair, *Paisley*.

Practical Gardeners and Amateurs.—For the best eighteen blooms (nine competitors), 1st, to Mr. Reid, gardener, *Broomfield*, with *Lady Emily*, *Yellow Climax*, *Flower of the Day*, *Queen of England*, *Duke of Norfolk*, *Mary Taylor*, *Robert Burns*, *Fanny Kemble*, *Royal Visit*, *Marchioness of Bath*, *Miss Talbot*, *Lady Dundas*, *St. Andrews*, *Duchess of Perth*, *Jubilee*, *Catherine Dundas* (seedling), *Sir J. Cathcart*, *Charles Cowan*; 2nd, to Mr. Shearer, gardener to the Marquess of Tweeddale, *Yester*, for *Yellow Climax*, *Disraeli*, *Lady Emily*, *British Queen*, *Sir J. Cathcart*, *Miss Talbot*, *Samson*, *St. Andrews*, *Royal Standard*, *Duke*

of Norfolk, Royal Visit, Flower of the Day, Charles Cowan, Mrs. Blackwood, Sovereign, Mrs. H. B. Douglas, Aurora, Sir J. Paxton; 3d, to Mr. Henderson, Cargilfield; 4th, to Mr. Young, Archerfield.

For the best twelve blooms (twelve competitors), 1st, to Mr. Henderson, gardener to C. K. Sivewright, Esq., Cargilfield, for Flower of the Day, Robert Burns, Yellow Climax, Duke of Perth, National, Gliff, Royal Standard, Duke of Norfolk, Adela, Miss Talbot, Sir J. Paxton, St. Andrews; 2nd, to Mr. Young, gardener to Mrs. H. N. Ferguson, Archerfield, for Flower of the Day, Post Captain, Royal Standard, Lady Emily, Miriam, St. Andrews, Gliff, National, Sovereign, Lady M'Kenzie, Sambo, Jubilee; 3rd, to Mr. Grandison, Valleyfield; 4th, to Mr. M'Nab, Inglis Green.

For the best six blooms (three competitors), 1st, to Dr. Stuart, Chirnside, with Marchioness of Bath, Telegraph, Lady M'Kenzie, Gliff, Diadem, Flower of the Day; 2nd, to Mr. Niven, gardener, Keir; 3rd, to Mr. Archibald Walker, Colinton.

Amateurs exclusively.—For the best six blooms (four competitors), 1st, to Dr. Stuart, with Marchioness of Bath, Gliff, Lady M'Kenzie, Telegraph, Robert Burns, Lucretia (seedling); 2nd, to Mr. Fleming, Berwick, for Earl of Mansfield, Sovereign, Flower of the Day, Duke of Norfolk, Pandora; 3rd, to Mr. William Young, Edinburgh.

Classes open to all.—For the best twelve dissimilar blooms—four light grounds, four yellow grounds, four selfs (twelve competitors), 1st, to Mr. Henderson, Cargilfield, for Duke of Perth, Yellow Climax, Flower of the Day, Adela, Miss Talbot, Royal Visit, Miriam, Queen of England, Gliff, Sir J. Cathcart, Favourite, Lady Emilie; 2nd, to Mr. Niven, Keir; 3rd, to Messrs. Downie and Laird.

For the best dark self in the room: St. Andrews, in Mr. Niven's stand, which was second in the prizes for classes.

For the best yellow self: Sovereign, in Mr. Douglas's stand, which was second in the nurserymen's class.

For the best yellow ground: Jubilee, in Messrs. Downie and Laird's, 18 for nurserymen.

For the best light ground: Miss Talbot, in Mr. Henderson's stand, the third in practical gardeners and amateurs' 18.

Sweepstakes (four competitors): 1st, Mr. Henderson, Cargilfield, with Flower of the Day, Royal Visit, Gliff, Duke of Perth, Miss Talbot, Supreme, Yellow Climax, Jubilee, Pandora, St. Andrews, Sir J. Paxton, National.

To two, out of the number of seedlings sent to this meeting for opinion, certificates of merit were awarded; the one named Omer Pasha, from Messrs. Dicksons and Co.; the other from Messrs. Downie and Laird, named Shylock; both are dark. Omer Pasha is a flower in the way of Magnificent, but was considered superior in every respect to that variety, of excellent substance and colour, and good in shape. Shylock is a dark self, deep and bright in colour, and of fine form and substance. Both of the above flowers will be found valuable acquisitions. Mr. Stenhouse, Pitfarrane, Dunfermline, sent a yellow-ground seedling, which was highly commended; as was also one in the same class from Mr. Shearer, Yester.

WHAT IS THE PROPER SIZE FOR A SHOW DAHLIA?

IN resuming my observations on stands or collections of Dahlias, I wish to offer a few brief remarks concerning the *size* of the flower, and, in doing so, I hope to arrive at a satisfactory solution of the question at the head of this paper.

To award praise where praise is due is always a graceful and pleasing task, and with reference to the point now under consideration, it is gratifying to recognise those indications of a purer and more refined taste which are gradually in the course of development. Until the past autumn I had not enjoyed the opportunity of witnessing a Dahlia show on a large scale since the year 1848, and I could not avoid being struck with the difference in the *character* of the flowers staged on the two occasions. At the former period exhibitors seemed to have devoted all their energies to the production of *large* specimens, in the attainment of which end every other consideration appeared to have been lost sight of. At the present time a close, compact, and well-formed bloom, of only moderate size, is far more highly prized than a large, loose, and open variety. This is, doubtless, as it should be. But it appears to me that a great object would be attained by the establishment of something like a *rule* as to the most appropriate size for a show Dahlia. I am not aware that this has hitherto been done in such a manner as to be generally satisfactory. The latest treatise on this flower which I have seen says, "The standard which is now adopted is that no flower should be less than four, and not greater than six, inches in diameter." Now here these questions naturally arise:—Is this standard practically recognised either by exhibitors or censors? and is it, in truth, the best that could be adopted? I think I am not far wrong in giving a negative reply to both.

While I am free to admit that any arbitrary limitation to the size of a flower is open to considerable objection, I am still of opinion that a standard with a narrower boundary than the one I have quoted would materially tend to improve the general effect of a stand of Dahlias; nor can I see any great difficulty in adhering—approximately, if not rigidly—to such a standard. I would propose, then, "that no flower should be less than *four*, nor more than *five*, inches in diameter." I look upon a Dahlia six inches across as a *lusus naturee*, and am disposed to regard it, like all *unnatural* productions, with astonishment rather than admiration. A bloom of these dimensions may occasionally be produced, but to what purpose? It will be useless as a show flower, for it is well nigh impossible to have a sufficient number of these monsters at the same time to make up a row. Besides, such blooms are, almost invariably, "flat and unprofitable." Bear witness you who grew Niobe and Jaune de Passy last year!

But mere opinions are little worth until proved to be correct by the touchstone of experience and observation. If mine will not bear that test, good reader, away with them at once. Only bear with me a moment, while, with your assistance, I endeavour to make out my case. Of course you have the back numbers of the *Florist* not very far off.

Reach that for February in the present year, and you will see well executed and faithful portraits of Fanny Keynes and Rachel Rawlings, two new Dahlias, which no grower who hopes to hold a good position next autumn will be without. Now tell me, is not the former *large enough* for the back row of any stand? Well, that flower is exactly four inches and three quarters in diameter. With regard to the latter, neither you nor I need be ashamed of a middle row of such blooms, even though the measurement be something less than four inches and a quarter across. I must trouble you with one more reference to the illustrations of the *Florist*. In the number for May 1853 is a delineation of Sir John Franklin, a small flower, the diameter of which is a trifle less than four inches, but which, you will agree with me, is a perfect model for the front row. I could adduce many other examples; but it is needless to overload a good case with a multiplicity of witnesses; and I am quite willing to leave mine to be decided by the evidence already before you. A word in your ear, good sir, before we part. If you can, tastefully and judiciously—due regard being had to the efficient distribution of colours—set up, at Brighton, on the 13th of September next, 24 clean, compact, well-formed and dissimilar blooms, of the dimensions I have indicated, I will back you, at small odds, to win the Railway Cup, particularly if your competitors have any of the six-inch flowers in their collections. Should you successfully adopt this disinterested hint of mine, I shall expect you—out of pure gratitude—to fill the goblet with claret or champagne, and give me the pleasure of drinking to your health in a bumper. On that auspicious occasion, be assured I shall not fail to present my credentials, so soon as I observe that the libation is prepared. I take it for granted the Railway Company will exhibit no less spirit than was evinced in September last.

As the few observations I have yet to make are addressed exclusively to the tyro in Dahlia cultivation, I would advise the more experienced grower, who understands the matter—it may be—far better than I, to spare himself the trouble of perusing the next paragraph. I would not have obtruded these remarks (which many will regard as mere truisms) did I not know, from experience, that the young florist is often thankful for information on minute points, with which the *old hand* is so thoroughly conversant, as to suppose they must, of necessity, be well understood by every one.

In stands of Dahlias, staged for competition, the flowers are arranged in three rows. The blooms in each row, respectively, should be matched as nearly as possible in size; and although some difference in the dimensions of the blooms in either row (in relation to the other rows) is not only admissible, but even to a certain extent necessary, yet the general appearance of the whole is much more imposing when the disproportion of size between the first, second, and third tiers is not too marked; 5, 4½, and 4 inches would, obviously, be a more pleasing gradation than 6, 5, and 4; nay, I am by no means certain that a quarter of an inch taken from the diameter of the back row and added to that of the front, in the former scale, would not present a *coup d'œil* still more pleasing and effective. Let it be remembered that the size

of the flower may be readily increased or diminished by judicious cultivation, and so be made, in a great measure, to accommodate itself to the requirements of the grower. To this end it is a good plan to select a variety neither too large nor too small, as the representative of what is most appropriate for the middle row, and then endeavour to grow the larger varieties *down*, and the smaller *up*, to the required standard. It is notorious that when flowers naturally disposed to coarseness are subdued in growth, they gain in form in direct proportion as they lose in size; and, on the other hand, very small and compact kinds will be improved by an excess of growth, as these varieties rarely become coarse, even when subjected to the most stimulating treatment which can be adopted.

Finally—If aught of criticism pervade this or my preceding paper, it has not been made in a captious or cavilling spirit. While I am fully conscious of having expressed but imperfectly the ideas present to my mind, I would fain hope I have not been altogether unsuccessful in rendering intelligible the *principles* I have been advocating. Should the opportunity of attending some of the more important shows in the ensuing autumn be given me, and the pages of the *Florist* be still open to my pen, I may possibly take the opportunity of reverting to the subject on a future occasion. Meanwhile, exhibitors, be upon your mettle!

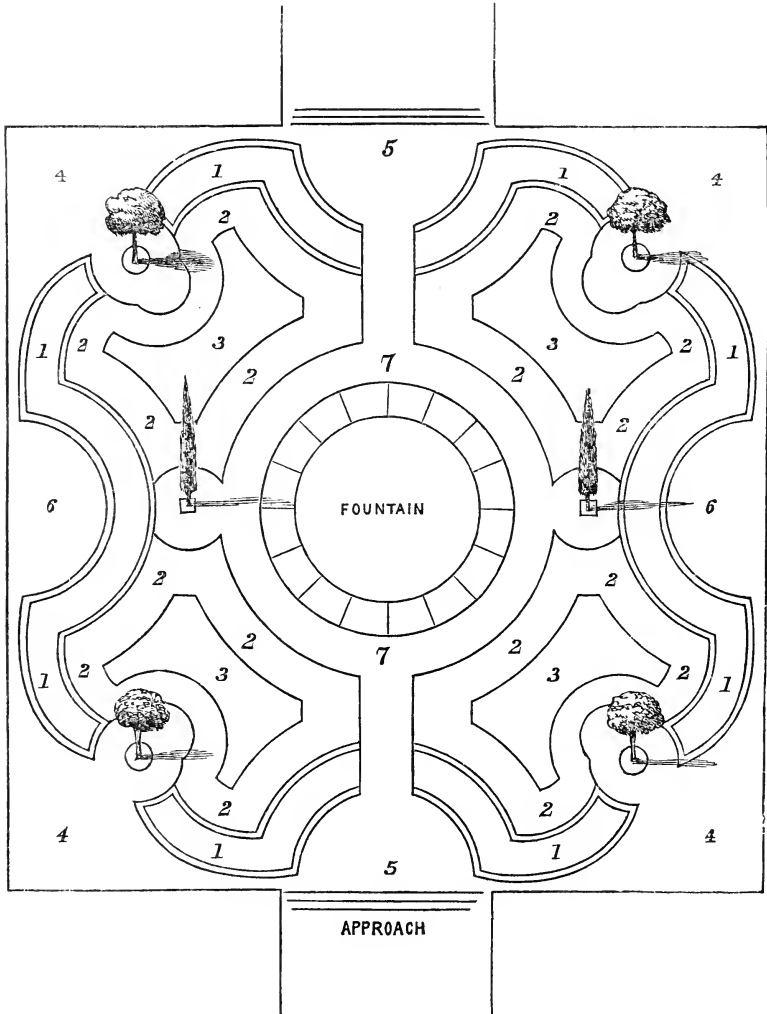
“ If there’s a hole in a’ your coats,
I rede you tent it:
A chiel’s amang you takin’ notes,
And, faith he’ll prent it.”

A. S. H.

DESIGN FOR FLOWER GARDEN.—No. III.

THE prevailing fault with modern flower gardens is this, that they present so uninviting an appearance in the winter season, during which period the eye can rest only on the mere outline of bare earth. As the season for the display of summer flowers is usually limited to the time intervening between the end of June and October, it will be seen that the beds are generally vacant for the larger portion of the year. To remedy this striking defect various makeshifts have been resorted to, among which that of keeping dwarf shrubs in pots, or in the reserve ground, for transferring to the beds of the parterres when the frosts of autumn render a clearance of summer plants necessary to high keeping is one, and these, with spring flowering herbaceous plants, Anemones, Hyacinths, Narcissus, Crocuses, Scillas, &c., will form a perfect blaze in spring, and if proper attention is paid to the harmonious distribution of colours, a very effective and pleasing show may be produced at the cost of a few pounds yearly, and a little extra at starting by way of “outfit;” but to manage this tastefully some thought must be given to the subject of arrangement, and the usual plan of dotting the shrubs at regular intervals over the surface of the beds, and filling in between with other

plants or bulbs at once discarded. As we intend to go more at length into this at a future opportunity, we will relieve ourselves from further digression by observing how much superior many of the old French designs for parterres are to those of the modern English school, where the



most tasteless figures are yet introduced into designs. No doubt it was owing to the paucity of flowers then known, which made the French "garden artists" decorate their parterres with low evergreens for effect, and which render them so infinitely before English designs in the winter season. But even with all our profusion of plants for summer

decoration, I think we might with good taste assist our designs by introducing some permanent embellishment, in the shape of Box, Savin, or any low-growing evergreen shrubs, either accompanying the outline of the design or forming distinct portions of it. We are pleased to see that, in some of Nesfield's best designs he has introduced such; and, in our opinion, with good effect, and if he would make his designs less intricate they would be a step in the right direction towards improving English flower gardens in point of taste.

In accordance with the above views, we this month present our readers with a design which we think will look well, even when the beds are empty. The design is intended to occupy a square plot of ground, and may be adjusted, as regards size, to any reasonable dimensions. As the figure is strictly an architectural one, the outside border should have a dressed stone edging, three or four inches wide and as many high, according to the scale of the beds. The design will be carried out as follows:—

1. Outside borders, with dressed stone edgings; these are intended for low-growing plants.

3. Beds for taller growing plants.

2. This space to be laid down to turf, or dwarf Box, or Savin, kept close: this is intended to form a frame for the beds marked 3, as well as to relieve the eye when the beds are empty.

The beds No. 3 may either have a raised stone edging, rather bolder than the outside bordering, or may be defined by a strip of bright gravel intervening between the plants and the turf. A round-headed symmetrical tree should occupy the recess at each corner, and an upright Cypress, or Irish Yew, each side of the fountain. This design would be most effective if the ground would admit of its being two feet below the surface, when the corners 4, 4, 4, 4, would form the frame, and the slope should be carried round at a distance of 2 ft. 6 in. or 3 ft. from the outside bed, in which case steps would be required at 5, 5, to correspond with the slope; the points marked 6, 6, would be suitable for a figure, vase, or other accessory to architectural gardening. 7, 7 is gravel.

NATIONAL FLORICULTURAL SOCIETY.

MAY 25.—G. W. Hoyle, Esq., in the chair. The subjects submitted on this occasion were:—Azaleas, from Messrs. Ivery, Dorking; Shrubby Calceolarias, from Mr. Cole, St. Alban's; Cinerarias, from C. P. Lochner, Esq., and Messrs. Ivery; Pelargoniums, from G. W. Hoyle, Esq., the Rev. Mr. Trimmer, and Mr. Turner; Rhododendrons, from Messrs. Ivery and Son; Pansies, from H. Brown, Esq.; Geraniums, from Mr. Ivery, Peckham; Tropæolum, from Mr. Cole. The following are the awards:—First class certificate to G. W. Hoyle, Esq., for Pelargonium Wonderful; this is a large flower of the finest form, with smooth, stout petals. The top petals are dark maroon, shaded off to the margin with orange and rose. The lower ones are deep pink, centre large, white. It is a very free bloomer. The same raiser also

obtained a certificate of merit for *Serena*, a flower of great substance; black top petals, margined with rose; lower petals lilac rose, white centre, a very smooth flower: and a label of commendation for *Lord Raglan*, similar in colour to *Prince of Orange*, but longer, full sized truss, and free, good habit. A certificate of merit was also awarded to *Pelargonium Grand Sultan* (Turner), black top petals, under ones deep crimson, strongly marked, a striking flower. A label of commendation was awarded to Mr. Cole, for his *Calceolaria Dazzle*, which promises to become a favourite.

JUNE 15.—E. Beck, Esq., in the chair. Mr. Smith, of Tollington Nursery, sent *Verbena Boule de Feu*, a brilliant scarlet, with yellow eye, and truss of fine form; awarded a first class certificate. *Viola-cca*, a deep violet, with a pure white eye, good truss and form. Also, *Fancy Pelargonium Elect*, an improvement on *Hero of Surrey*; and possessing a good habit. Mrs. S. Latham, of Dover, sent a bedding *Geranium Carminia*, of the *Diadematum* class, an improvement on the *Sidonias*, and which was awarded a certificate of merit. Messrs. Veitch, of Chelsea, contributed a bedding *Geranium, Helena Superba*; an oak-leaved variety, a blush white, with a light spot, of fine habit, and very free. Mr. Cole, St. Alban's, exhibited *Calceolaria Eclipse*; a fine reddish crimson, of fine form and good habit; a good acquisition to the bedding class. This was awarded a first-class certificate. *Orion*, a light brown of good habit, free, but long. *Prince of Orange*, orange yellow, of good habit, flower long. Mr. Dobson, of Isleworth, sent *Pelargonium Mr. White* (white), a carmine rose, with crimson maroon spot, smooth, with a good under petal; *Gem of the West*, (Fuller) a fine silvery white, with a pure claret spot, of good form and habit; awarded a certificate of merit. E. Beck, Esq., sent *Fidelio*, (Beck), a heavy rose, with maroon spots, and bright throat, under petals slightly spotted. *Silenus* (Beck), an orange scarlet, with brownish crimson spot, under petal clouded with the same colour; this was awarded a certificate of merit. *Conqueror* (Beck), a good crimson scarlet, with rich maroon spot, good habit; received a first class certificate. *Laura* (Beck), a good rose, with good spot, white throat, and moderate form. Mr. C. Turner exhibited a *Fancy Pelargonium, Ariel* (Cook), good, but must be seen again, not being sufficiently in bloom. *Calceolarias*, cut flowers, from Mr. Stone, of Hull; *Aurora*, *Truth*, and *Gem*, were among the best; but being cut, the judges could not make an award; they are of fine form. E. Foster, Esq., of Clewer Manor, sent *Pelargonium Phaeton*: a rich orange scarlet, stout, smooth, and of good form, a free bloomer; this was awarded a first class certificate. Mr. C. Turner, of Slough, sent *Pelargonium Pandora*, with dark maroon top petals, edged with crimson, crimson bottom petals, very free; awarded a certificate of merit. Also *Fancy Pelargonium Ne plus ultra* (Turner), dark purple maroon, edged with white, form good; awarded a first class certificate. *King of Crimson* (Turner), bright crimson, very showy, and possessing a free, good habit; awarded a certificate of merit.

HARMONIOUS DISTRIBUTION OF COLOURS IN STANDS OR COLLECTIONS OF DAHLIAS.

I WILL feel obliged by your noticing one or two typographical errors in my paper on this subject which appeared in your June number. Trivial as they may appear, they have the effect of rendering some portions of the article unintelligible.

In the sentence commencing with the penultimate line of page 166, the transposition of the monosyllables *no* and *an* conveys a meaning directly opposite to that really expressed. The sentence should stand thus:—"He who would do this must possess an eye correct to fastidiousness, a mind imbued with the love of art, and an intuitive taste, mellowed and nurtured by judgment. I apprehend it is no easy matter, &c., &c."

Again, the incomprehensible passage which begins in the fourth line of page 168 should read as follows:—"Possibly the *amateur* will scarcely ever grow plants in such profusion as to ensure the requisite number of every colour. I fear we can scarcely expect, in *his* case, a really good and telling arrangement. With growers for sale it is another matter, &c."

A. S. H.

HAMMERSMITH PANSY SOCIETY.

MAY 15.—The flowers produced on this occasion were good, if not numerous. We regret that the competition was not greater, as the Society is well supported with friends. The following are the awards.

Class I. 36 blooms. Nurserymen: 1st prize, Mr. C. Turner, with Marion, Monarch, Euphemia, Flower of the Day, Royal Standard, Gliffe, Mrs. Hamilton, Memnon, Mrs. Talbot, Comet, British Queen, Lord Palmerston, Earl Mansfield, Satisfaction, Climax, Sir J. Cathcart, Blanche, Emperor, Uncle Tom, Pandora, Miss Stewart, Victory, Mrs. Mills, Pomona, Superb, Royal Visit, Duke of Perth, Caroline, Mr. Beck, Fair Rosamond, Sir J. Paxton, Royal White, Lord John Russell, Marchioness of Bath, Thisbe, National, and Fearless; 2nd, Mr. W. Bragg, Slough, with Ophir, Post Captain, Hercules, Georgiana, Samson, Marchioness of Bath, Lucida, Duke of Perth, Timour, Royal White, Polyphemus, Miss Talbot, Pandora, Royal Visit, Sir J. Paxton, Kate, Monarch, Velvet, Grace Darling, Mrs. Hunt, Androcles, Queen of England, Mr. Thomson, Amelia, Great Western, Euphemia, Alfred the Great, St. Andrew, Dreadnought, Caroline, Mrs. Beck, Lady Carrington, Masterpiece, British Queen, Fearless, and Criterion.

Class II. 24 blooms. Amateurs: 1st prize, Mr. Lane, Wycombe, with Royal Visit, Aristides, Mrs. Hamilton, Ophir, Euphemia, Egon, Emperor, Climax, Polyphemus, Aurora, Nonsuch, National, Queen of England, France Cycole, Exquisite, Duke of Perth, Duchess of Rutland, Timour, Addison, Keepsake, Lucy Neal, Marchioness of Lothian,

Sambo, and Androcles; 2nd, Mr. August, Beddington, with Duke of Norfolk, Queen of England, Joe Miller, Duke of Perth, Sir J. Paxton, Miss Talbot, Aurora, Commander-in-Chief, British Queen, Royal Visit, Mrs. Beck, Marchioness of Bath, Sir J. Cathcart, Maria, Master Lacon, Mrs. Hamilton, Ibrahim Pacha, Monarch, France Cycole, Ophir, Thisbe, Lucy Neal, Pandora, St. Andrew; 3rd, Mr. Holder, gardener to the Rev. E. Coleridge, Eton College, with Lucida, Mrs. Rouse, Samson, Marchioness of Bath, Duke of Perth, Royal Visit, Kate, Alfred the Great, British Queen, Ophir, Mr. Thomson, Great Western, Ibrahim Pacha, Optima, Post Captain, Euphemia, Sir. J. Paxton, Mrs. Coleridge, Mrs. Hunt, Fearless, National, Androcles, St. Andrew, and Monarch.

Open Class.—*Seedlings.* First class certificates were awarded to Mr. Turner, for Lord Palmerston, Memnon, and Satisfaction; Lord Palmerston and Satisfaction, are yellow-ground varieties of fine form, and distinctly marked. Memnon is a noble dark variety, very large and smooth.

Extra Prizes for the best 6 yellow grounds: 1st Prize, Mr. August, for Sir J. Cathcart, Duke of Norfolk, Robert Burns, Mr. Beck, Thisbe, Pandora; 2nd to Mr. Holder, for Timour, Pandora, Sir J. Paxton, Alfred the Great, Duke of Norfolk, Mr. Thomson. For the best 6 white grounds: 1st, Mr. Holder, for National, Mrs. Rouse, Marquis of Bath, Royal Visit, Climax, and Queen of England; 2nd, Mr. Lane, for Aurora, Exquisite, Queen of England, Duchess of Rutland, Euphemia, and Climax. For the best flower in the exhibition, the prize was awarded to Mr. Lane, for the variety called Egon (Turner), a flower similar in colour and marking to Mr. Beck, but much more perfect in form, and exceedingly smooth on the edges.

GREAT NATIONAL TULIP EXHIBITION FOR 1854.

IN our last number we were able to report the names of the successful exhibitors only; we now proceed, according to promise, to give some account of the winning flowers.

In the class of six blooms of one feather and one flame in each class, which is the most difficult for the exhibitor, the competition was very great; the stands being so near each other in quality, that the judges had great difficulty in deciding. The first prize, a silver cup of the value of 7*l.* 10*s.*, was awarded to Mr. James Parkins, Derby, for a stand of neat, well marked flowers, but not large: they were Heroine, Princess Royal, Gibbons's Salvator Rosa, very fine; Maid of Orleans, Royal Sovereign, and Pilot; the latter a noble specimen, which was also awarded the premier prize for the best flame Bizarre exhibited; 2nd, Mr. R. J. Lawrence, Hampton, with a chaste stand of flowers, of uniform size, consisting of Ulysses, Glory of Abingdon, Arlette, Triumph Royal, Maid of Orleans, and Bloemart; 3rd, Mr. J. Thornily, of Heaton Norris, near Manchester, with Maid of Orleans, Queen Charlotte, Lacheses, Heroine, Pilot, Royal Sovereign—this was also a very good lot of flowers; 4th, Mr. J. F. Wood, Nottingham, with Platoff, Willison's Sir J. Paxton—this is a superb new variety,

a Bizarre, and was shown in first-rate condition; Aglaia, Heroine, Queen Charlotte, and Norwich Baquette; 5th, Mr. C. Spencer, Thurlstone, near Derby, with Royal Sovereign, Captain White, Heroine, Triumph Royal, Lord Denman, and Groom's Queen Victoria.

Mr. Houghton sent a nice stand, consisting of Coupé de Hébe, a fine feathered Byblæmen, of great purity, and dense rich marking; Queen Charlotte, Heroine, Triumph Royal, Captain White, and Royal Sovereign. Mr. Godfrey also had some of the finest specimens in the exhibition, a heavy Captain White was the only drawback, or this stand must have stood very high. The quality of the blooms will be evident from two of them winning premier prizes, viz., Lord Denman, flamed Byblæmen, and Royal Sovereign, feathered Bizarre. 12 blooms, 4 of each class: 1st, Rev. S. Cresswell, Nottingham, with Polyphemus, Princess Royal, Bloemart, Sphynx, Triumph Royal, Lady Denman, Vicar of Radford, Mary Lamb, Strong's King, Prince of Wales, Aglaia, and Prince Arthur—the latter a seedling; 2nd, R. H. Betteridge, Esq., Abingdon, with Countess of Harrington, Royal Sovereign, Glory of Abingdon, Catalani, La Belle Actrice, Everard, Thalia, Polyphemus, Mary Ann, Triumph Royal, Triomphe de Lisle, Claudiana; 3d, S. Sanders, Esq., Staines, with Victory, Ariadne, Thomas Brown, Surpasse Catafalque, very fine, Groom's Duchess of Sutherland, Earl Douglass, Marcellus, Enchantress, General Barnoveld, Maid of Orleans, and Acapulca; 4th, Mr. J. Thornily; 5th, J. Hunt, Esq., Wycombe. 18 blooms, 6 of a class: 1st, Mr. R. J. Lawrence, with Dickson's Duke of Devonshire, Madame Vestris, Norah Creina, Polyphemus, Rose Lucetta, Bloemart, Elthiren, Captain White, Lady Wildair, Thalia, Earl Douglass, Mountain Sylph, Triumph Royal, Queen of the North, Pilot, Lawrence's Sarah, Maid of Orleans, Vivid; 2nd, Mr. J. F. Wood, with Appelles, Walker's King, Vicar of Radford, Triumph Royal, Beauty of the Plain, Salvator Rosa, Sir. J. Paxton, Magnum bonum, Heroine, Aglaia flame, Lady Denman, Rembrandt, Everard, Vivid, Kate Conner, Aglaia feather, Queen Charlotte, Lady Flora Hastings; 3rd, Mr. C. Turner, Slough, with Chellaston Rose, Bijou des Amateurs, Pilot, Alexander, Magnus, Claudiana, Princess Royal, Mary Lamb, Hamlet, Madame Vestris, Vivid, Thalia, Triumph Royal, (this was also awarded premier for flamed rose,) Optimus, Acapulca, Captain White, George Glenny, Chellaston Beauty, and Polyphemus; 4th, Mr. Bragg, Slough.

A large number of fine blooms was staged for the prizes in classes; the arrangement of not breaking up the losing stands gave very general satisfaction. In feathered Bizarres the first prize was awarded to Mr. J. Godfrey, Chellaston, Derbyshire, for Sovereign; 2nd prize to Mr. Lymbery, Ison Green, Nottingham, for Sovereign; 3rd prize, Mr. J. Godfrey, for Sovereign; 4th prize, Mr. C. Spencer, for Sovereign; 5th, Mr. Thomas Houghton, Hunshill, Nottingham, for Magnum bonum; 6th, Mr. T. Houghton, for Sovereign.

Flamed Bizarres: 1st prize was awarded to Mr. J. Godfrey for Pilot; 2nd, ditto; 3rd, Mr. R. J. Lawrence, for Polyphemus; 4th; Mr. J. Thornily, with Everard. 5th; ditto, with Pilot; 6th, Mr. C. Spencer, with Polyphemus. *Feathered Roses*: 1st, Mr. J. Godfrey,

with Heroine; this also took a premier, and was one of the finest flowers in the exhibition; 2nd, Mr. C. Spencer, with Heroine; 3rd, Mr. J. Godfrey, with ditto; 4th, ditto; 5th, Mr. Thomas Houghton, with ditto; 6th, Mr. W. Lymbery, with Monument. *Flamed Rose*: 1st, Mr. J. Godfrey, with Triumph Royal; 2nd, ditto; 3rd, Mr. C. Spencer, with ditto; 4th, Mr. James Parkins, with ditto; 5th, Mr. William Lymbery, with ditto; 6th, ditto. *Feathered Byblæmens*: 1st, Mr. W. Lymbery, with Maid of Orleans; 2nd, Mr. J. Godfrey, with ditto; 3rd, Rev. S. Cresswell, with ditto; 4th, Thomas Adams, Esq., Derby, with Black Diamond; 5th, Mr. C. Spencer, with Victoria Regina; 6th, Mr. J. Parkins, with Sancta Sophia. *Flamed Byblæmens*: 1st, Mr. Thomas Houghton, with Sarah Ann; 2nd, Mr. C. Spencer, with Queen Charlotte; 3rd, Mr. J. Thornily, with General Barnoveld; 4th, Rev. S. Cresswell, with Sarah Ann; 5th, Mr. W. Lymbery, with Nepaulese Prince, a fine flower; 6th, ditto, with Queen Charlotte.

It will be seen from the foregoing, that the premier prizes for the best six flowers exhibited were awarded to the following varieties in their respective classes:—

Feathered Rose, Heroine; Flamed ditto, Triumph Royal; Feathered Bizarre, Sovereign; Flamed ditto, Pilot; Feathered Byblæmen, Queen Victoria; Flamed ditto, Lord Denman.

Three first class certificates were awarded, two being for rectified flowers, and one for a breeder. The best of the former, George Hayward, is noticed elsewhere. Mr. Hardy, of Warrington, had one for King Arthur, a Bizarre also; and a very fine flower it is in form and purity: not a large variety, but of great substance. The breeder was from Mr. Willison, of Whitby, named Juliet, a rose of very superior form, and described by us some time since.

As we observed before, the meeting of this Society for 1854 was in every respect successful, yet it occurred to us that a much larger number of blooms was staged in the classes than there was any reason for; the exhibitors of which must have known that there was no chance of their being placed: there was, however, an improvement in this respect over former years. Many of the exhibitors have also profited by experience in the arrangement of their blooms; but there are some that need to be reminded of the importance of attending to this; for instance, we noticed a winning stand of eighteen blooms, having the six Bizarres placed at one end, six Byblæmens at the other, and the six Roses in the centre. What would the same exhibitor have said, if, on entering the exhibition of plants, he had seen them arranged in the same manner? for instance, 12 Azaleas, with the purples at one end, the rose-coloured sorts at the other, and the light ones in the centre? The same might be said with regard to Roses and Pelargoniums. Yet how much easier it is to arrange a few cut blooms, compared with large plants in pots; they may be shifted half a dozen times, until a good effect has been produced. Those who have such a taste—or want of taste—as we have described, should read the very excellent practical paper on this subject, by A. S. H., in our last number. It is a point the judges should take into consideration oftener than they do, when other points are nearly balanced.

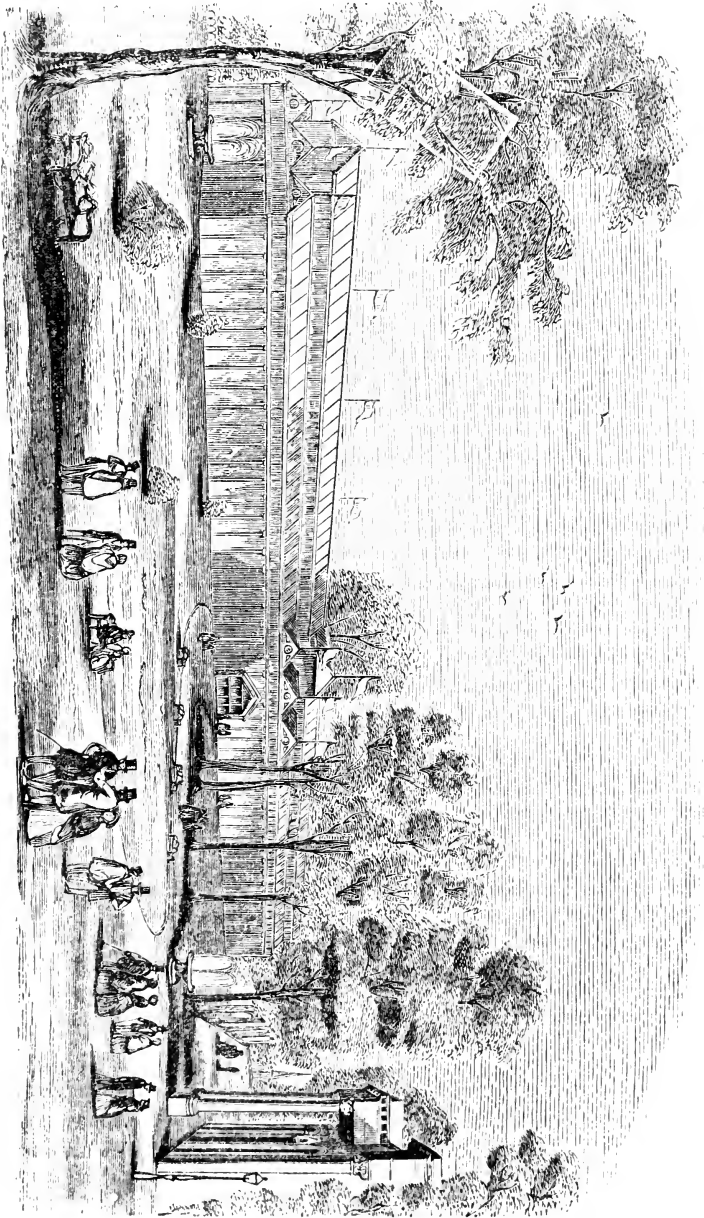
CHELTENHAM EXHIBITION.

THE following is some account of the grand display of horticulture, which recently took place here—the Arts and Sciences connected therewith, and designs taken therefrom. One of the best results of the World's Fair of 1851 has been its stimulating people to get up exhibitions of a similar kind—a fact well exemplified by the product of the united energies, dictated by the sound sense, of the good folks of Cheltenham. Who would have conceived, prior to the glorious exposition in question, that a small provincial town in the “beautiful west,” could originate, erect, elaborately occupy, and maintain for weeks, a Crystal Palace? Such is, however, no longer a matter of experiment; the successful issue of the undertaking has, beyond doubt, been demonstrated. To what practical uses may we apply ourselves, when pure love for the prosperity of a town dictates our actions! That the gentlemen of Cheltenham have shown the way in many a good work, their annual horticultural fêtes testify; and whatever they may have done for the good of the science and pursuit of gardening, few would have been bold enough to have foretold the immensity and glories of the *tout ensemble* offered on the 20th and 21st of last month; for, in addition to their Palace (a representation of which is given in next page), a building 400 feet in length, of glass, both sides and roof, the latter on the Paxton ridge and furrow system, with noble transept, and well appointed interior decorations, there were five monster marquees of plants and flowers. Never could the “Old Wells” have been gayer; artistic fountains, well kept lawn, the Coldstream Band, the “fair creatures of the Creation,” and fine weather, each lent that powerful aid so necessary for the climax of *eclat*, commanded and deserved by the several committees of management; in their programme is set forth “Of all sciences, few are more useful and interesting than horticulture; and of all arts, none more pleasing and beautiful than the imitative. How few articles are manufactured, where it is not introduced with effect! And when we examine the beautiful representations that proceed from the pencil and the brush, the moulder and the carver, the engraver and the printer, the weaver and the embroiderer; or the elegant works of drawing-room pastime, as wool and needlework, crochet and netting, &c., &c.—and observe, on so turning them over, how many of the most attractive and beautiful are designed from the *vegetable world*, and represent the chaste and pleasing productions of horticulture—none can help coming to the conclusion that a collection of all such works of art, designed from such objects in nature, must in itself form one of great attraction; and hence the origin and title of the exhibition, affording alike to the lovers of nature and art both pleasure and instruction.

‘The works of Nature’s growth,
And works of art adorned.’”

A few years since it was the general impression that it was an impossibility to get up a really first class horticultural exhibition, out of the great metropolis. The provincial affairs, proud as their promoters were of them, and creditable as they were in days *sans* steam and rail,

could in nothing be compared with the fêtes of Chiswick and the Park. The inhabitants of Cheltenham have in the most spirited and



determined way established the fact, that locality has nothing to do with the matter, and that collectors and growers will go forward freely "far from home," if but sufficient inducements, a kindly reception, and an impartial tribunal be their reward.

Here many were the faces seen in London, and but for the circumstance of a Park show occurring on one of the two days, of which a report will be found in another place, it is certain that the benches of Cheltenham would have been overcrowded, even liberal as was the tent room provided. Not the least interesting features were the fine collections of each 50 plants with ornamental foliage; the Messrs. Rollisson, however, claimed the first prize. The most prominent were *Anæctochilus argenteus*, *Cissus discolor*, *Dracæna*, *Caladium*, *Maranta* in varieties, the Japan *Pandanus*, Pitcher plants, &c.; of Ferns and Lycopods ample examples were afforded. In Orchids Messrs. Rollisson found a powerful and successful rival in R. S. Holford, Esq., who deservedly earned the hard-won honour of being first. Here was a beautiful specimen of *Saccolabium guttatum*, with eight spikes of amply expanded and brilliantly developed flowers, and a plant of *Saccolabium guttatum* variety *splendens*, with seven spikes of flowers, of which several exceeded 18 inches in length; *Cypripedium barbatum*, two feet through, with three dozen expanded flowers; *Aerides odoratum majus*, three feet by three feet, with 30 racemes of flowers; a fine *Cattleya Mossiæ*, and the showy *Oncidium sphacelatum*, with 20 spikes. In the Tooting collection were *Dendrobium nobile*, two and a half feet high by three feet through, the young growths being trained to form a border to the scores of flower stems, after the manner of putting foliage around a bouquet—thus treated, the specimen was perfection; a good *D. chrysanthum*, three feet high by two and a half through; also *Aerides affine*, with nine racemes of flowers, the charming *Oncidium Lanceanum*, the beautifully coloured *Cattleya superba*, and a crowning plant of *Stanhopea tigrina major*. Twenty greenhouse plants: 1st, Messrs. Rollisson; 2nd, A. Lawrence, Esq. The gems noticed here were *Erica Cavendishi*, *Ixora coccinea*, *Epacris miniata*, *Aphelexis macrantha*, *rosea*, and *purpurea*; *Allamanda Schotti*, *neriifolia*, and *grandiflora*; *Polygala cordata*, *Hoya bella*, very good; the Holford *Statice*, *Phænocoma proliferum*, *Rhynchospermum jasminoides*, finely flowered and charmingly fragrant; *Franciscea calycina*, *Stephanotis floribunda*: the latter subject was also staged by Earl Beauchamp as a specimen stove plant; it was very fine. The specimen *Erica ventricosa magnifica* by Messrs. Rollisson was a perfect gem, as was the greenhouse specimen of Colonel Fiddes, *Epacris miniata*. Fifteen plants by R. S. Holford, Esq., contained *Pimelea decussata grandiflora*, *Polygala oppositifolia*, *Vinca rosea*, *V. ocellata*, and *Gardenia Fortuni*. Twelve miscellaneous plants: 1st, R. C. Tugwell, Esq.; 2, Earl Beauchamp; 3, Dr. C. Shaw, the most prominent plants being *Leschenaultia intermedia*, *Erica ventricosa grandiflora*, a healthy little *Aphelexis*, and a fine *Statice Holfordii*. Ten superb Heaths gained the first prize, sent by Messrs. Rollisson; G. C. Tugwell, Esq., being second. In the class for six Heaths Dr. Comyn was first; Dr. Shaw, second; Messrs. Pipe and Son, third. In six miscellaneous plants,

first, Miss Phillips; second, Dr. Comyn; third, Lady Agar: the plants in this class were, for the most part, nice young healthy specimens, especially a *Rondeletia speciosa* in the first group. Messrs. J. C. Wheeler and Son, of Gloucester, staged nine plants of the leading Fuchsias. There were five collections of twelve Pelargoniums, but none of very first-rate merit, so far as cultivation went; the principal sorts were Optimum, Magnificent, Rowena, Enchantress, Magnet, Constance, May Queen. In fancy varieties were Celestial, Advancer, Miranda, Annetta, Marginatum. It were well if growers of this lovely tribe of plants would have courage to discard the long-since beaten varieties; many here staged were sadly defective of florists' properties, and should no longer occupy space in glass structures, which are mostly too limited even for the choicest varieties.

Of cut flowers, such as Pinks, Verbenas, Pansies, Roses, Ranunculuses, &c., no deficiency was to be observed—C. H. Velley, Esq., being far in advance of his competitors. Two famous collections of Gloxinias and Achimenes were staged by Miss Phillips and A. E. M'Donell, Esq.

Vegetables, as usual at Cheltenham, were really fine and abundant.

It was observed, that all here seemed to have found that contentment denied elsewhere.

JOHN EDWARDS, *Holloway.*

ROYAL BOTANIC SOCIETY, REGENT'S PARK.

THIS Society's second great fête of the season took place on the 21st ult., under very favourable circumstances, as regarded weather, which was fine until about six o'clock, when the evening set in wet. There was a large and brilliant attendance, which appeared to fully enjoy the entertainment provided for it, and which well deserved the encouragement it received; for it was rich and varied as a liberal and judiciously framed schedule could possibly make it. Florists, indeed, found satisfaction here, where their productions were not only submitted to the admiring gaze of more than three times the number of visitors that attended elsewhere; but also to the inspection of royalty itself; for the Queen, his Royal Highness Prince Albert, and two of the Royal children, minutely examined the exhibition before the gates were thrown open to the public.

As regards stove and greenhouse plants, they were unusually abundant and excellent, and among them were some plants rarely met with in such exhibitions; giving room for hope that a beneficial change in the aspect of groups of this kind is about to take place; and we trust, as we have already said, that the first promoters of it may be suitably rewarded. Conspicuous among brilliantly flowered plants were different kinds of *Kalosanths*, which, together with a few *Azaleas*, the remnant of the season, and tall *Cacti*, gave life and beauty to the scene. The numerous plants of *Stephanotis*, with their fragrant white flowers, and the large yellow blossoms of the different kinds of *Allamanda*, were all

objects of much admiration; as were also the various *Dipladenias*, *Ixoras*, *Aphelaxis*, *Pimeleas*, and even *Heaths*, unfashionable as they have become lately. Perhaps the finest plant in Mr. Colyer's large collection, which was first, was *Ixora salicifolia*, beautifully bloomed, and with, what is rarely found, a clean, healthy, robust foliage. The collections of Messrs. Green, Speed, Gillham, Fraser, and Rollisson, were also very fine, and we observed a new exhibitor in this class, viz., Mr. Frost, gardener to E. L. Betts, Esq., who ably carried off the first prize in groups of ten plants.

Orchids were furnished by the usual exhibitors of them, in better condition and in greater profusion than in May. Among fine specimens of plants not noticed in our report of the Chiswick show, were *Peristeria elata* (the Dove plant), the white *Phaius*, the deep lilac *Calanthe masuca*, which forms a remarkable contrast with the more common white sort; *Epidendrum verrucosum*; the singular *Coryanthes maculata*, with its pouch-shaped, rich brown spotted flowers, nearly half filled with some fluid, which they are constantly distilling; and *Dendrobiums Farmeri* and *Devonianum*, two of the most charming of the genus. Mr. Hanbury had a lovely *Phalænopsis*. Of *Cattleyas*, Mr. Iveson produced a very fine variety of *Mossiæ*, with pure white purple tipped flowers.

Roses in pots were generally somewhat past their best. Messrs. Lane still had, however, fine examples of some of the most favourite kinds, as *Coupé de Hébe*, *Paul Perras*, &c.

Mr. Francis was second; of these *Coupé de Hébe*, *Baronne Prevost*, *Lamarque*, and *Paul Ricaut* were amongst the best. Amateurs: 1st, Mr. Rowland; tea-scented *Adam* was the best here; and Mr. Sage had a good *Souvenir de la Malmaison*. Cut Roses were not plentiful, so few having been enabled to cut collections from the open ground; indeed, most of those exhibited appeared to be from the houses. Nurserymen: 1st, Messrs. Paul, in whose collection *Mansais*, *Narcisse*, *Triomphe de la Queue*, *Jules Margottin*, and *Degesseau*, were fine specimens; 2nd, Mr. Wilkinson, who showed *Géant de Batailles*, *Devoniensis*, *Souvenir de la Malmaison*, *Comte de Paris (Tea)*, *Princess Clementine*, and Mrs. Elliott, in perfection; and all from the open borders. Amateurs: 1st, Mr. Rowland, amongst whose were well grown specimens of *Moire*, *Coupé de Hébe*, *Caroline de Sansal*, and *Louis Peronny*; 2nd, Mr. Terry, *Frederick the Second*, *Madame Hardy*, *Baronne Prevost*, *Las Cases*, and *Comtesse de Tolason*, were very good; 3rd, Mr. Hume; among these *Elise Sauvage* was first rate. 24 Singles: 1st, Mr. Terry, *Madame Villermorz*, *Lady Stewart*, *Kean*, *Niphetos*, the finest bloom amongst the whole; and tea-scented *Comte de Paris*, were large and well grown. Mr. Morrison sent some fine flowers; and a certificate to Mr. Hume, of the Poles, was well deserved.

With the exception of "home productions," there was little novelty. Two *Clematis*—one *lanuginosa* the other *l. pallida*—were however very fine things, on account of the very large size of their flowers, more especially the first, which was pale blue; the last was nearly white. Both are reputed to be about as hardy as *C. azurea*; the same firm (Messrs. Standish & Noble) had also *Lilium sinicum*, which is perhaps

the nearest approach to scarlet of any we have, and some new *Berberis*. R. Hanbury, Esq., had a yellow terrestrial Orchid; Mr. Frost, *Begonia Prestonensis superba*; and Messrs. Osborne, *Lysimachia Leschenaulti*, an herbaceous plant, with heads of rosy flowers, something like those of a *Verbena*. M. Van Houtte, of Ghent, produced some new variegated plants, among which was the white-veined *Aphelandra Leopoldi*, which is exceedingly handsome, on account of its fine foliage alone.

Collections of Ferns were numerous, and unusually well cultivated—and charming additions to an exhibition they make. *Lomaria chilensis* and *Gymnogramma leptophylla* were among the number. The latter was found a year or so ago, growing wild in Jersey.

We look for *Pelargoniums* to be in perfection in June, and the admirers of this lovely class of plants were not disappointed; for they made an excellent display, and were generally in very fine condition.

In the class of twelve varieties, Mr. Turner, of Slough, was first, with some of the finest plants we remember to have seen exhibited, and, for such small pots (8-inch ones), they were of immense size, and well covered with large blossoms and good foliage. They consisted of Hoyle's Majestic, do. Magnet, do. Ganymede, do. Topsy, a striking new variety; do. Beatrice, Foster's Optimum, do. Enchantress, Turner's Rowena, do. Splendidum, do. Juliet, Virgin Queen, and Exactum. 2nd, Mr. Dobson, Isleworth, with Ambassador, Arethusa, Harriet, Mont Blanc, Exhibitor, Star, Diadem, a lively rosy purple; Ajax, Rosamond, Vulcan, Delicatum, and Neatness; 3rd, Mr. Gaines, Battersea; 4th, Mr. Clark, Streatham.

In the amateur's class of ten plants, Mr. Nye, gardener to E. Coster, Esq., was first with Autocrat, Sunrise, Purple Perfection, Optimum, Ariel, Enchantress, Magnet, Cloth of Gold, Attraction, and Phaeton. The last two varieties were especially fine, and are noble flowers in colour and quality; 2nd, Mr. Holder, gardener to the Rev. E. Coleridge, Eton College, with Carlos, Pearl, Magnificent, Portia, Mochanna, Norah, Enchantress, Claudiana, Star, and Centurion; 3rd, Mr. Robinson, Pimlico; 4th, Mr. Wier, gardener to G. Hodgson, Esq., Hampstead.

Of fancy varieties there not so many as usual. Mr. Turner's plants, which were first, were a long way in advance of the other collections. They consisted of Barbette, Celestial, Perfection, Gaiety, Madame Rosati, and Delicatum, the latter quite a pyramid of flowers; 2nd, Mr. Gaines, with a nicely flowered group of plants, comprising Advancer, Clara Novello, Fairy Queen, Delicatum, Princess Marie Galitzin, and Madame Ugald.

In the amateurs' collections Mr. Robinson was first, with Cassandra, Celestial, Magnum Bonum, Cobden, Fairy Queen, and Princess Marie Galitzin; 2nd, Mr. Winsor, gardener to A. Blyth, Esq., Hampstead; 3rd, Mr. Wier, gardener to G. Hodgson, Esq. of the same place; 4th, Mr. Barter, gardener to A. Bassett, Esq., Stamford Hill.

In the class of New *Pelargoniums*, six plants, the first prize was awarded to Mr. Turner, for Sanspareil, very fine; Optimum, do.; Zarea, Mary, Majestic, and Leonora. We noticed a fine plant of Carlos, which is one of the finest new *Pelargoniums* we have seen.

The prize for the best scarlet was awarded to Mr. Gaines for his Conqueror, which we have previously described.

A prize was awarded to the same exhibitor, for six plants of the curiously marked French Geraniums, of which James Odier is the best, and very showy; the others are but poor things, and all are of wretched shape.

Fuchsias were shown, fine, by Mr. Bray, of Regent's Park, who deservedly was awarded the first prize for Perfection, Nonsuch, Elizabeth, Princess, Collegian, and Madame Sontag; 2nd, Mr. Ward, Regent's Park, with good plants, and well flowered, but much disfigured by the manner in which they were tied.

There were some good Pinks; in the amateurs' class the first prize was awarded to Mr. Baker, Woolwich, for finely laced blooms of Huntsman, Sarah, Ruby, Colchester Cardinal, Favourite, Arthur, Mrs. Norman, Koh-i-noor, Winchester Rival, Sappho, Kate, and a seedling. In 24 blooms, for nurserymen, Mr. Turner was first, with New Criterion, a superb new flower; Perfection, President, Narborough Buck, Rubens, Beauty of Salt Hill, ex. fine; Charmer, Adonis, Pandora, Mr. Hobbs, Fanny, Sappho, Ada, Ruby, Sarah, Jupiter, Portia, Arthur, Edgar, Prince Albert, Great Criterion, King of Purples, Glory, and Mrs. Maclean: 2nd, Mr. Bragg, Slough; 3rd, Mr. Parker, Dalston; Pansies, 24 blooms. Amateurs: 1st prize, Mr. Holder, gardener to the Rev. E. Coleridge; 2nd, Mr. James, gardener to W. F. Watson, Esq., Isleworth. 36 blooms, nurserymen: 1st, Mr. Turner; 2nd, Mr. Bragg; 3rd, Mr. Bryan, Hounslow. The first collection contained fine specimens of the following:—Comet, Memnon, Earl Mansfield, Royal Albert, Mrs. Beck, Emperor, Lord Palmerston, Miss Stewart, Egon, Satisfaction, Miss Talbot, Absalom, Father Gavazzi, Uncle Tom, Ring-leader, Samson, Mrs. Marnock, Mrs. Beck, Sir Joseph Paxton, and Duke of Perth.

We were much pleased to find the Society gave certificates for seedling florist flowers. The following received that distinction: Enchantress, exhibited by Mr. Halley, Blackheath; this is a finely shaped fancy Pelargonium, pink and white, smooth and of dwarf habit, and a free bloomer; Pelargonium Phaeton, ditto Laura, and ditto Vesper, also to Pansy Mr. Phillips, exhibited by Mr. Bragg, yellow, margined with bronze purple.

Of new things, there were but few good to report, with the exception of Pelargoniums. The best of these was Phaeton, several plants of which were exhibited. This variety is fully described in our report of the last National meeting, at Regent-street. Foquett's Petruccio, a large free flowering crimson, which will make a fine nurseryman's flower, the habit being so fine. Cant's Vesper, a white, having a distinct spot of purple on the under petals, is very remarkable. Foster's Jessica, which might be called a large Enchantress, with a clearer centre, is a fine flower. Hoyle's Yerda, a large flower, of fine form, dark top petals, having pink under petals, with white centre. Gaines' Conqueror, orange scarlet, very bright, but shy, bringing many of the flowers false. Mr. Gaines also exhibited Andover, Custaloga, Hyder Pacha, and Mademoiselle Bosie, neither of which are improve-

ments on existing varieties. Mr. Dobson had a box of cut blooms: Conqueror, Dido, and Silenus, all which were very rich in colour. Gem of the West (Fuller), a free smooth white; Laura (Beck), pretty, lively rose, white eye, a very pleasing flower, but curls in the top petals, and is deficient in spot; Dido (Beck), a very striking flower in colour, rosy orange, with dark top, white eye; and Lydia (Beck), dark maroon top, with mottled light bottom petals. Mr. Stone, of Hull, sent some very good-shaped herbaceous Calceolarias, the best of which were Truth, Celestial, Teetotaller, Rising Sun, and Mary Ann. Messrs. E. G. Henderson contributed a group of plants of a miscellaneous description, consisting of shrubby Calceolarias, the best of which were Aurora, bright crimson, and Crocea, a pale yellow; bedding Geraniums, Phlox General Radetzki and Mayi. Mr. George Smith, Hornsey exhibited a box of Verbenas: Islington Rival, Triumph, and Caliban were good, and promise to become bedding varieties; there were also three blooms of a rich dark seedling Pansy, Royal Albert (Turner), resembling shot silk, very smooth and distinct.

There was an excellent display of fruit, which was shown in the great conservatory. Pine-apples, both Queens and Providences, were abundant; the best of the former weighed 5 lbs. 1 oz. The Providences were not remarkable either for weight or shape. Grapes were for the most part good, the best being from Mr. Frost, of Preston Hall; and of Peaches and Nectarines there was a great display, Cherries and Strawberries were present in profusion, more especially the latter, of which there were no fewer than 42 exhibitions. Melons were very plentiful, and altogether this department gave, as did indeed the whole exhibition, universal satisfaction.

ON THE GROWTH OF WINTER CUCUMBERS.

IN order to cut Cucumbers from November to February, nothing more is required than a common pit of ordinary construction, with a heating apparatus of some description. From a pit heated with a flue of the simplest kind, I have had Cucumbers as plentiful and as fine in January as in June.

The chief difficulty which people experience in the growth of Cucumbers in winter arises, in my opinion, from one cause—and that is, they generally sow the seed too late; they rarely sow before August, and oftentimes not till late in that month; then if the weather in September and October be cold and cloudy, it is impossible for the plants to acquire health, vigour, and strength to carry them through the winter.

Were a person, who intended to exhibit Pelargoniums at any of the shows in May, to begin by cutting back his specimens in August, his chances of success would be about equal to those of the Cucumber grower who sows his seed in August, and expects to have plenty of fruit at Christmas.

I will briefly describe the method I adopt, and which has always been attended with uniform success. I always sow the seed any time

from the 1st to the 15th of July, but never later than the 15th; in about a month's time after, they are fit for planting out. The soil I use is turfy loam, with some decomposed dung, if the loam be very turfy; but if not, I use a good portion of leaf-mould instead of the dung.

The plants are not stopped until they reach two parts of the way up the trellis. I employ no artificial heat of any description during August and September; and if the weather be fine during October, I use none until towards the end of the month. I supply the plants liberally with water when they require it; and when the weather is at all favourable, I give an abundance of air; by this treatment the plants attain an extraordinary degree of strength and vigour by the end of October.

I then begin to use a little fire heat, but I still continue to give air whenever the state of the weather will permit. By these means, and by proper attention to the stopping and the regulating of the shoots, I succeed in having as good Cucumbers during November, December, and January, as in any other three months of the year.

As the season is now at hand for commencing, I can recommend the above method as the result of practice; and if strictly adhered to, it will be attended with astonishing success.

M. SAUL.

CALENDAR FOR THE MONTH.

Auriculas.—These will remain for the present in the cool, as previously directed. If the border is well drained, it will take considerable rain to injure them: wet in excess would, however, be injurious, from which they should be protected. The soil intended for repotting them should be turned over occasionally, and not allowed to become either very dry or very wet.

Camellias and Azaleas.—If the proper treatment has been followed, Camellias will have their bloom buds for next year discernible; when such is the case, gradually allow more air, to inure them by degrees to outdoor treatment. In placing them out, select a shady well-sheltered spot; worms must be prevented from getting into the pots, and secure them from being blown over—water as occasion requires. Greenhouse Azaleas will require similar management, but are longer in forming their buds, and will bear exposure to the sun. Keep down thrips.

Carnations and Picotees should be frequently looked over with the watering pot, if dry harsh weather prevails; a check at this stage of their growth would be very prejudicial to the bloom. Weak liquid manure may be used occasionally. The plants have received great benefit from the late showers, and are looking exceedingly well. With ordinary attention a good bloom is certain. The grower for exhibition is fully aware of the importance of keeping down insects, particularly aphides. The more clean and healthy the plants are in a young state, the less thrip is there to contend with in the blossoms. Tying the buds with a small piece of bast, just as they are on the point of bursting, protecting them as soon as they are open, and placing cards on

the finest flowers, as soon as the guard petals have dropped, will engage the attention of those that cultivate these beautiful flowers successfully. Should any pots have more layers than there will be room to put down, the smallest shoots should be taken off, and struck in a similar manner to Pinks. It should also be done early, at the same time as Pinks are put down, and a month before it is necessary to commence laying.

Cinerarias.—Seed should now be sown. The cuttings on the first cut down plants will now be long enough to take from the old stools. These should be struck in fine sand, in cool frames facing the north, potting them off singly into very small pots as soon as struck. If mildew appears, sulphur the plants affected without loss of time.

Conservatory and Show House.—As most greenhouse plants will now be out of doors or in frames, their place in these houses may be filled with some kinds of hardy stove plants and Orchids in bloom, Fuchsias, Kalosanthus and Neriums. Do not fail making up a supply of Mignonette; keep the internal borders damp, where vigorous roots exist, and attend to the requisite cleanliness required by both house and plants.

*Dahlia*s.—Planting will now be completed, and, for a month hence, will be but little trouble. The principal attention required, will be watering over the foliage with soft water during the evening, with a good rose, watering once a week in addition, if the weather is dry. Insects, particularly earwigs, should be exterminated.

Flower Garden and Shrubbery.—When once the summer plants are on the move, the principal points to attend to will be the tying up or pegging down, as the case may be, watering in dry weather, and great attention to order and neatness in every quarter. Look at last month's Calendar.

Forcing.—Make fires in dull damp weather to late Grapes in bloom, and such as are colouring; give air at every opportunity. As the crops of forced Peaches are gathered, well wash the trees, daily, to destroy the red spider, shutting the house up close. Give air again by night; a warm well aired atmosphere by day, and a cold one by night, will assist the ripening of the wood. *Pines*.—Air liberally to ripening fruit. Those swelling keep moist at the root, and syringe daily. Pot successions; keep the bottom heat at a steady point, 85° to 90°. Air by night in warm weather will strengthen young stuff; pot suckers for succession. *Melons*.—Give plenty of light and air to ripening fruit. See the roots get no check, either by the bottom-heat declining, or through want of water when swelling; sow for last crop, and earth up succession crops. *Cucumbers*.—Shade, or the fruit will be bitter.

Hardy Fruit.—Pears and Plums against walls, where at all vigorous, should have about a fourth part of the uppermost growth of young wood removed, cutting back to two or three joints; towards the end of the month the next part may be removed. *Peaches and Apricots* will require the summer wood nailed in; still keep a watch for insects, and attack them with the engine when found. *Net Cherries*, and stop and nail in the young wood of Vines. *Strawberries* must be layered immediately the runners are formed; either for forcing or forming new plantations.

Heaths and Epacris.—See last month.

Hollyhocks.—Cuttings may be put in to a considerable extent this month, as, by taking the small side shoots for the purpose, strength is thrown into the flower spike.

Kitchen Garden.—Every piece of vacant ground should now be cropped, with the various Broccolies, Borecoles, Brussels Sprouts, Savoys, &c., for winter and spring supply if possible. The above should have been transplanted before their final planting; should the disposable ground not be sufficient, plant a quantity out rather thickly for re-planting, as more ground comes to hand. The principal crop of Celery and Leeks should now be got out; sow the last crops of Peas and Broad Beans; succession of Lettuce, Cauliflowers, Spinach, &c., may yet be sown.

Mixed Greenhouse.—A host of things may be grown here for the next two or three months. Fuchsias, Japan Lilies, Kalosanthus, will take the place of Pelargoniums and Calceolarias; in addition, some showy annuals should be grown for the purpose. Balsams, Cockscombs, Thunbergias, &c., will all help to make a gay appearance.

Pansies.—The first cuttings will be struck by this time, and should be planted out to bloom in September and October, when they will produce healthy cuttings at a season when it is no trouble whatever to strike them. This is not the case in the summer months. Nothing is more difficult to strike in hot drying weather than Pansies. However, all the cuttings that can be procured during July should be put in, as the plants will go off at this season frequently in large numbers, and give but little notice. Seed can be procured freely this month, but it will not be so good in quality as that saved in July.

Pinks.—The general propagation of these should now be proceeded with. If the top of the leading shoot is taken off with great care, the plant will produce a large number of small shoots, which will strike readily towards the end of the month. Seedlings should be selected carefully as soon as they are in bloom; only those with smooth edges, and distinct, well-defined lacing should be grown another season, to finally ascertain their quality. Pinks are strong, and are lacing well this season. The new varieties shall be fully reported in our next. We must however mention one fine bloom we have seen,—Maclean's New Criterion; a flower possessing more good points than any Pink we have seen yet this season; but we must not anticipate what is in store for us. One thing is certain, there has been great improvement in this old but sweet flower during the last five years.

Pelargoniums.—The general cutting down is now at hand; cuttings strike freely in an old hot-bed, first putting in sufficient soil to raise them up near the glass.

Roses.—Decaying blossoms should be cut off with long stalks, and always to any other bud. Where required for exhibition, it is often desirable to thin out some of the buds; in dry weather liquid manure much increases the beauty of the flowers.

Tulips.—Having been taken up as directed, clean the bulbs as soon as sufficiently dry. Place the cabinet containing the bulbs in a cool, dry place, where they will remain quietly for some time.





Clematis latifolia
Flora 90.

J.S.

CLEMATIS LANUGINOSA (WOOLLY CLEMATIS).

(PLATE 90.)

THIS fine species was discovered by Mr. Fortune, the enterprising Chinese Traveller, on the "Hills of Chekiang;" in 1850, seeds were transmitted to Messrs. Standish and Noble, Nurserymen, Bagshot, who have succeeded in obtaining a stock of plants, one of which flowered with them in the spring of 1852, and others more recently, from which our plate has been taken.

The Woolly Clematis is found wild on the hill sides, near the city of Ningpo, generally growing on stony soil, among the dwarf bushes usually found in such situations; on these the stems support themselves as they grow, till they reach the top, which is often over-spread with them; and in the blooming season they present a beautiful appearance, from being covered with the azure blossom of this Clematis; our readers will perceive that the habit of the family is thus maintained by the present species, and all who have noticed the growth of the common Clematis in our own hedgerows will be able to form an idea of the beauty which this plant will present, when allowed to grow in its own way.

The flowers of this species are much larger and more hairy than those of *C. azurea*, which it somewhat resembles; it will form, we doubt not, a valuable addition to our hardy flowering plants. A south or south-east wall will be a good place to begin with it, but duplicate plants should be planted out, much in the way pointed out above, and allowed to ramble over some bush, and at leisure, so as to fully bring out its beauties.

C. lanuginosa owes its specific name Woolly to having the flower buds, peduncles, and young leaves covered with a fine wool; it belongs to the viticella section of the genus. This valuable acquisition cannot be too generally planted; its vigorous growth will soon enable it to form a conspicuous object. There is a second variety called *lanuginosa pallida*, paler in colour than the above, and with narrower petals, about which we shall have something to say in a future number.

The common Clematis has long been an occupant of English gardens. The varieties of flammula and viticella being among the first of our cultivated plants. The sweet-flowered Clematis flammula, and the purple and blue varieties of viticella, are especial favourites for training over arbours, bowers (hence their popular name, Vine-bower Clematis) up to the present day, and are equally useful for covering trellises, walls, or palings; we have likewise seen them turned to a good purpose, by planting

them at the base of trees which have naked stems; and, when mixed with Ayrshire and evergreen Roses, Honeysuckles, and the like, they produce a pleasing effect; none of our common trees so completely answer this purpose as the common Acacia, which grows generally with a naked stem; and having but few branches, and thin open foliage, is well adapted as a support for the above, and other climbing plants. When managed in the way described, and after a few years' training of the shoots along the principal branches, they will grow in a most delightful state of wildness, and charm us as much by their natural growth as by their beauty and fragrance. Now that pillar Roses are become so fashionable, nothing better can be found than the Acacia for supporting them, and if the head of the tree is an objection, it can be yearly cut back. After planting the trees (which of themselves will grow in almost any soil), holes should be prepared and filled with rich soil, when it would be alone too poor for Roses; all that is afterwards required will be a few nails and a coil of copper wire to keep up the branches of the climbers as they grow.

To return from our digression; where a fence or unsightly building wants hiding quickly, no better plant can be found than the common Traveller's Joy, or Clematis vitalba, which will extend itself over a great surface in a single season. *C. florida* and *azurea* are rather tender, but are well worth the protection of a south or east wall, where, if planted in a tolerably rich loam, they will grow freely, and produce their beautiful flowers in abundance. *C. cirrhosa* is a valuable climber, not so much for its blooms, which, however, are produced through the winter months, but for its bright evergreen foliage. The flowers are bell-shaped, of a greenish white, and form a nice companion for the recently introduced *Jasminum nudiflorum*, which blooms at the same cheerless time of the year. This should be allowed a south wall, which it deserves. Among the species of Clematis of rather recent introduction, *montana* is a valuable addition to the list of hardy climbers. This is a plant of robust habit, and will grow almost anywhere; it should, however, be planted against a wall to bloom it in perfection; it produces clusters of snowy-white blooms from the joints of the last year's shoots, as well as on spurs from the older wood; and, when well managed, presents a splendid appearance in the spring, when covered with its numerous crop of white flowers.

ON TOWN ROSES.

“CAN Roses be cultivated successfully near London, and in the immediate neighbourhood of our large manufacturing towns?” This is a question frequently asked of the writer, and among the many articles met with in periodical literature on the culture of the Rose, he does not remember to have seen town Roses made a matter of special consideration. It is proposed, then, in the present paper, to inquire—1st, How far Roses are cultivable in a smoky atmosphere; 2d, What are the kinds best suited for such conditions; and 3d, What the best method of cultivation.

First, then, “With what success may Roses be cultivated in the vicinity of large towns, such as London, Manchester, Glasgow, &c.?” In reply to this, I may state that my conviction is that they may be grown as near the heart of any of these cities as ground is likely to be obtained for gardening purposes:—Holloway, Kennington, Clapton, and Bayswater, round London; Stretford and Broughton, round Manchester; Partick by Glasgow; Edgbaston and Gib Heath, round Birmingham. At all these places have I seen Roses flourishing and blossoming as if they had never known or wished for a purer air or sunnier clime. And even disappointment, where it occurs, is generally upheld by some shadow of hope; “while numbers fail,” says the puzzled tyro, “a few live on and flourish, though all were subjected to similar treatment, and all growing in similar soil.”

Often the inquiries are qualified by statements of *partial* failures, and the quality of the plants is questioned, when, if the reasoner were accustomed to deduce inferences from facts, the selection of sorts or after treatment would have been the real and apparent cause of the difficulty and disappointment. The practical man finds here at once a clue to the mystery; failures too often lie in the non-suitability of the sorts chosen. Let us, however, deal with a case which brings this first question to a closer issue; it is that of the Roses planted by the Royal Botanic Society in the Regent's Park, London. This plantation was made in the winter of 1851-2, when the ground was in an unfavourable state, and blooming the first year was hardly looked for. We must confess the experiment so far conducted quite realised our expectations. In the spring following (every pains having been taken during the interim) they appeared in a condition to flower magnificently, and continued so till within a few weeks of the flowering season, when an unusually long prevalence of easterly winds marred their beauty. Yet they did not all fail. Some there were—the few not the many—which escaped the scathings of the storms, and blossomed, breathing beauty, sweetness, and brilliancy upon the too desolate scene.

Here, in London, some sorts were found to thrive, and many more, no doubt, would have done so, but for a season so untoward as to affect Roses in the most favoured localities. So satisfied, indeed, are the authorities of these gardens of the suitability of certain kinds for a London climate, that they intend reintroducing such in other parts of the garden. Let it not be said, then, that Roses will not grow round

London ; but rather that failures should be attributed to an ill chosen assortment, or other causes.

Let us now turn to this question, and inquire—2, What are the kinds best suited for these peculiar circumstances? It is well known that our present races of garden Roses are of parents drawn from various climes. The north, south, east and west, have been ransacked to deck with yet another gem this choicest of Flora's diadems, and though altered greatly from their original appearance by hybridising and cross breeding, each retains much of its peculiar constitution. Were an Englishman sent to Sierra Leone, the probability is that he would encounter loss of energy and shortened duration of life. Were a Persian to visit England he might also suffer from the variations of climate and diet. But beyond this, even among our own countrymen, the disadvantages of crowded towns, and the impurities of districts breathing forth malaria, affect not every constitution with the same force.

Now there is some analogy between the animal and vegetable kingdoms, certainly enough to warrant us in borrowing this illustration. And while for want of facts we might make a tolerably shrewd guess at suitability and non-suitability of individuals, we are happy in having, in this instance, facts to lay before our readers, and facts drawn from various sources.

I shall now offer a list of 100 sorts, which I believe best suited for town gardening, having seen them at various times flourishing around London and the great manufacturing towns in the United Kingdom.

CLASS I.—SUMMER ROSES.

GROUP 1.* *The Boursault Rose.*

Amadis crimson shaded with purple

GROUP 4. *The Damask Rose.*

La Ville de Bruxelles flowers light vivid rose, large and full
 Madame Soëtmans flowers flesh colour changing to white,
 large and full
 Madame Hardy flowers pure white, large and full
 Pulcherie flowers pure white
 Sextus Papinius flowers rosy crimson, handsome foliage

GROUP 7. *The Moss Rose.*

Angélique Quetier flowers rosy lilac
 Crimson flowers bright rose, large
 Duchesse d'Abantés flowers flesh colour, large and full
 Lanei crimson and purple, large and full
 Latour blush, rose centre
 Princess Alice (Paul's) . . . blush, pink centre, buds well massed

GROUP 8. *The French Rose.*

Belle Rosine large deep pink
 Colonel Coombs crimson, shaded with purple
 Dido rose, crimson centre
 Docteur Dielthim rose, shaded with crimson
 Duchess of Buccleugh . . . lively crimson, blush edges
 Je me Maintiendrai rosy pink
 Latour d'Auvergne purplish crimson
 Napoléon bright rose, shaded with purple
 Perli des Panachus white striped with rose colour
 Scipio deep crimson spotted

* The groups are those of the "Rose Garden."

GROUP 10. *The Hybrid Chinese.*

Blairii No. 2.	rosy blush, very large
Brennus	light carmine
Chénédole	light vermilion
Fulgens	brilliant crimson
General Jacqueminot	shaded purple
General Lamoricière	rosy lilac

GROUP 11. *The Hybrid Noisette.*

Madame Plantier	white, free bloomer
Nathalie Daniel	pale peach, free bloomer

GROUP 12. *Hybrid Bourbon.*

Charles Duval	pink
Comte Baubert	rose colour
Coupe d'Hébe	rich deep pink
Great Western	large crimson scarlet
Paul Ricaut	bright rosy crimson
Virginie	carmine
Vandhuissou	large bright crimson
Vivid (Paul's)	rich vivid crimson

GROUP 13. *The Alba Rose.*

Etoile de Malmaison	flesh colour
La Séduisante	flesh colour, rose centre
Lucrèce	pale rose, centre deeper
Madame Audat	glossy flesh, edges creamy

GROUP 16. *The Ayrshire Rose.*

Ruga	pale flesh
Splendens	white, edged with red
Thoresbyana	white

GROUP 17. *The Evergreen Rose.*

Banksiæflora	white, centre yellowish
Félicité perpétue	cream white
Rampante	pure white
Myriantes rénoncule	blush, edged with rose
Spectabilis	rosy lilac

CLASS II.—AUTUMNAL ROSES.

GROUP 27. *The Hybrid Perpetual.*

Alexandrine Bachemeteff	bright red
Auguste Mie	light pink
Baronne de Heeckeren	large rosy pink
Baronne Prévost	superb pale rose
Béranger	purplish crimson
Caroline de Sansal	clear flesh colour
Cornet	large rose, tinted with purple
Duchess of Sutherland	pale rose
General Changarnier	crimson and purple, large
Henri IV.	deep rose
Jacques Lafitte	bright rose
La Reine	pink tinged with lilac
Lion des Combats	reddish violet shaded
Louis Buonaparte	vermilion
Mère de St. Louis	white tinted with rose
Madame de Lamoricière	clear pale rose
Madame Fremion	light crimson
Madame Laffay	rosy crimson
Mrs. Elliot	rich rosy purple

Mrs. Rivers	clear flesh colour
Prince Leon Katchanley	bright crimson
Robert Burns (Paul's)	light vivid carmine
William Griffiths	satin like rose
Salvator Rosa	fine opera red

GROUP 28. *The Bourbon Perpetual.*

Baronne de Kermont	fine pink
Docteur Juilliard	rosy purple, shaded
Duc d'Alençon	lilac rose
Louise Odier	fine bright rose
Reine Mathilde	delicate pink

GROUP 29. *The Rose de Rosomene.*

Géant des Batailles	brilliant crimson, shaded with purple
Gloire de Rosamene	large brilliant carmine

GROUP 36. *The Bourbon Rose.*

Apolline	delicate rose, shaded
Bouquet de Flore	light carmine
Duchesse de Thuringe	white, shaded with lilac
Madame Desprez	lilac rose
Madame Helfenbein	clear lilac rose
Marquise de Jury	fresh rosy pink
Pierre de St. Cyr	large pale rose
Prince Albert (Paul's)	fine scarlet crimson
Sir Joseph Paxton	rose, shaded with crimson
Souvenir d'un frère	bright crimson

GROUP 38. *The Noisette Rose.*

Aimée Vibert	pure white
Cerise	purplish rose
Du Luxembourg	lilac rose, centre red
Eclair de Jupiter	bright crimson scarlet
Fellenberg	bright crimson, free bloomer
Jeanne d'Arc	pure white
Jaune Desprez	red, buff, and sulphur
La Biche	pale flesh
L'Angevine	white, tinted with pink
Vicomtesse d'Averne	rose, free bloomer

If we come to generalisation, and were asked for a law to guide purchasers in selecting for themselves, we should say, fix on the strongest and freest growers as the safest guide; although this is not always sure, some weak growers succeeding, and some strong ones failing. It will be seen, on analysis of the above list, that a great portion of the summer Roses are Hybrid Bourbons, and the most of the autumnals Hybrid Perpetuals. So far it falls out fortunate for the town gardener, because these classes of Roses are not surpassed, if equalled, by any. There is a sprinkling of most other useful groups, Chinas and Teas excepted, which under such circumstances are wholly repudiated, unless cultivated under glass.

This brings us to the last question—3. What is the best method of cultivation? I do not think it expedient to enter at detail into the ordinary methods of culture; but rather to note briefly the heads of them, and any special attention required. First be sure the soil is suitable and well drained; if not so naturally, this point must be attained artificially, for it becomes of increasing importance in the precise ratio in which the air is rendered vitiated by incidental causes. Let each

plant be staked and mulched immediately after planted, and watered regularly when required. On the approach of spring the Rose grub should be closely sought and destroyed; frequent syringing should be resorted to, and continued throughout the summer, to keep the leaves free from the impurities that settle on them. This I believe to be of the very first importance; for if the pores of the leaves be allowed to be choked up by adventitious deposits, the functions of breathing, respiring, and digesting are deranged, and the plant quickly falls into feeble health. Lastly, keep the surface of the soil loose by the frequent use of the hoe. These matters carefully attended to, and a judicious selection of sorts, would, I think, secure to town gardening more brilliancy, more beauty, and more fragrance from a few feet of ground, than are now ordinarily brought off as many yards. But again we say the most pains-taking or cleverest gardening is of no avail against an inappropriate selection of sorts.

Nurseries, Cheshunt, Herts.

G. PAUL.

THE GENUS POLYGALA.

SOME of the gayest and most useful inmates of our greenhouses belong to this genus. And the best varieties are plants of easy culture, which, with even ordinary care, soon form fine large symmetrical bushes, bloom most profusely, and remain longer in beauty than most hardwooded plants. But, although all the more desirable varieties are of free growth, persons commencing their culture should be careful to procure good healthy promising young plants, avoiding pot-bound leggy things, which are very unfit for beginners. If plants are procured at once, the best situation for them for the next two months will be near the glass in a cold pit or frame, where they can be secured from bright sunshine, and afforded a free circulation of air. If they appear to require more pot room, this should be seen to at once, in order to get them well established in their pots before winter; and it will not be advisable to give a very large shift after this season. Attention should be paid to having the ball in a nice moist healthy state; for no plant should be repotted except this is the case, and particularly hardwooded plants. For soil, use good strong rich fibry peat, with a small proportion of rich mellow turfy loam, well intermixed with plenty of sharp silver sand, and some lumpy bits of charcoal, or clean small potsherds to keep it open, and permeable to water and ensure good drainage. If stopping is required, this should be done as soon after potting as the roots appear to have taken to the fresh soil; or in the case of plants that do not require repotting, it should be done at once, and the shoots should be kept nicely tied out, in order to induce a bushy habit of growth.

The best situation for the plants in winter is near the glass in the greenhouse, where they will have all the light possible and a free circulation of air on every favourable opportunity. At that season water must be administered very carefully, never giving any until it is absolutely wanted, and then sufficient to thoroughly moisten the ball. Turn

the plants occasionally, to prevent their getting one-sided through the shoots turning to the sun, and give the leaves a gentle washing with the syringe occasionally, to clear them of dust, &c.; but do this on a bright morning, so as to avoid damp. About the middle of March the plants should be cut back, if necessary, to secure a sufficiently close growth—for they will be too small to be of any service for flowering—and placed in the warmest end of the house, or removed to where the night temperature may average about 45°, syringed over-head on bright days, and kept rather moist. Here they will soon push their buds and start into free growth, and when this is the case the roots should be examined, giving a liberal shift if the ball is covered with healthy roots. Afford the same careful attention after repotting as recommended above, keeping the atmosphere moist, and watering sparingly until the roots strike into the fresh soil. Perhaps the best directions that can be given as to temperature during spring would be to regulate it according to the amount of light, keeping the plants growing as freely as can be done without inducing weakly growth; but by all means avoid this, which would spoil the specimens. Remove to a cold frame as soon as the weather becomes at all favourable, and treat them during the summer as recommended for last season, remembering that minute attention and careful management is the only way of securing handsome specimens. If a second shift should be required in course of the summer see to this as early as can properly be done, in order to have the pots pretty full of roots; also discontinue shading early in autumn, and expose the plants freely to light and air, so as to get the young wood rather firm before winter.

The same treatment as recommended for last winter will be suitable again, but if the plants are considered sufficiently large for flowering they should be kept in a cool, airy part of the greenhouse until they come into bloom, when they may be removed to the conservatory, where, if they are shaded from bright sunshine, they will last some two months in beauty.

CULTOR.

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. VIII

XV. *PINUS MONTICOLA*—THE MOUNTAIN WEYMOUTH PINE.

WE have again availed ourselves of the Dropmore Pinetum to furnish the subject of our illustration for the present number; which represents a vigorous growing tree of *Pinus monticola*.

This, which is popularly called the Short-leaved Weymouth Pine, was first discovered by Douglas, who subsequently sent seeds of it to this country in 1831. It is found occupying the mountain ranges on the north-west coast of America, particularly towards the source of the Columbia river—and in California. In suitable situations the tree attains a great size, producing a resinous timber; which, however, is said to be soft and light.

The Mountain Pine differs chiefly from the Weymouth in having



PINUS MONTICOLA.

Height 33 feet; girth of stem, at 3 feet from the ground, 2 feet 7 inches.

shorter leaves, which are of a light glaucous green colour, with a stripe of white on the under side, and in its more bushy compact mode of growth, as compared with that species. The rapid growth of this Pine, added to its light coloured foliage and handsome shape, make it a valuable acquisition in the hands of the landscape painter; as the tree grows indigenously on rocky soils it might with propriety be introduced to similar situations in this country; its vigorous habit, complete hardiness, and pleasing tint of colour, would form agreeable contrasts to the darker green of other Conifers, while as a park and lawn plant, it seems equally suitable; and now so many novelties have failed to prove their powers of withstanding the colds of English winters, more attention should be paid to such kinds of whose admitted hardiness there can be no doubt.

Mr. Frost informs us that the tree figured was planted in the autumn of 1835, and was then only a few inches high; its present height is 33 feet, girth of stem at 3 feet from the ground, 2 ft. 7 in., and extent of branches 20 ft.; it has produced cones for several years past, and many young plants have been raised from them. The cones are from 4 to 7 inches long, covered nearly over with a resinous substance, which gives them a pearly appearance when seen from a distance.

XVI. *PINUS PSEUDO-STROBUS*—THE FALSE WEYMOUTH PINE.

This is a very handsome species, introduced in 1839 from the mountains of Mexico. It is closely related to the last described Pine, but differs in the leaves being longer, of a lighter green, and disposed much more loosely on the branches; the bark of the latter, too, is of a silvery grey, while in *monticola* it is of a reddish brown. Altogether this is a most desirable variety; it grows freely, forming numerous branches, which, notwithstanding the looseness of the foliage, produces a dense habited tree. *Pseudo-strobus* is generally reputed tender, but with us in Wiltshire it has passed through the last winter, which has proved so fatal to many Mexican Conifers, unharmed, and we can therefore recommend it to the attention of admirers of Conifers as a desirable kind to plant. Like all the Weymouth Pine group, it grows rapidly.

NOTES ON VEGETABLES.

DURING the past season I have grown the following sorts of Broccoli. Dilcock's Bride, Mammoth, Snow's Winter White, Summer's, Chappell's Cream, Knight's Protecting, Miller's Dwarf White, Wilcove, and a variety called the New Cornish. The frost of January last killed every plant of the Wilcove and Cornish. Out of twelve rows not a single plant escaped. All the other sorts stood the winter well; none were killed, but the leaves of some got a little injured. I like Miller's Dwarf White as well as any sort I have ever grown. It will stand almost any degree of frost. It forms a nice head, and occupies little space—an object of vast importance where ground is limited. The head is sufficiently large for private use, and nearly double the usual number of many of the larger sorts can be grown on a given piece of ground.

Stourton, Yorkshire.

M. SAUL.

CLEAN LEAVES NECESSARY TO GOOD CULTIVATION.

WITH what feelings of delight does the country-born citizen view the bursting buds and newly-developed leaves of spring in his little town garden! From their fresh green colour, as they unfold themselves for the first time to the morning sun, he can just catch a glimpse of Nature as he was wont to find her in rural retreats of younger days. His pleasurable feelings are, however, alas, but short-lived; those leaves, which but a week or two before were so verdant, so full of sweet reminiscences, and so promising for the future, are already soiled and uninviting. They now but faintly shadow forth the beauty and freshness of rusticity, and fail to afford those enlivening and cheering emotions which they did when they first broke through their winter coverings. Now more than ever did he long for some suitable protection from the impurities of a smoke-loaded atmosphere, and it was fortunately no great while before his desires were gratified; for the duty coming off glass placed that material within his reach, and the most delicate and choice of his little favourites soon smiled under an elegant transparent roof. Difficulties in the way of successful cultivation, however, still presented themselves. He could not give air, but the atmosphere inside became loaded with soot and dust; the pores of vegetation got choked up, and many were the "sear and yellow leaf" he picked off. This continued, together with the blighting influence of the atmosphere, which could not be altogether excluded, soon brought his plants into ill health, and, as a last resource, he thought he would try the effect of keeping the foliage constantly in a perfectly clean state by means of washing it frequently with soap and water. This was found to act like a charm. The plants soon began to improve as much in health as they previously got out of it, and this from the employment of no other agents than those just mentioned. Nor is this to be wondered at, when we consider the very important part leaves have to play in the economy of nature. Even the exhalation from them in a given time is remarkable. A French writer recently made a series of experiments on this subject, by enclosing a living leaf between two bell jars, one applied to the upper and the other to the under surface, and ascertaining the quantity of fluid exhaled by means of chloride of calcium, which absorbs water with great rapidity. He found that the exhalation from the lower surface of the leaf was usually double, and even triple or quadruple that of the upper surface. The same results were obtained even when the leaf was reversed. The quantity of water exhaled has a relation to the number of stomata or pores. The exhalation is greater at the line of the ribs, or at the part of the epidermis or skin where there is least fatty or waxy matter. The secretion of this matter in abundance during the warm days of summer may tend to prevent the plants being injured by rain and by the heat of the sun. By impeding exhalation, it tends to retain the moisture which is necessary for the functions of the leaves.

The difference of the exhalation is seen in the following table, in which leaves of the same plant were exposed to the air, some of them

with the surface wiped, so as to take off some of the waxy covering, and others with the surface in the natural state :—

Names of Plants.	Weight of Leaf.	Weight after 6 hours' exposure to air.	Difference.
Red Valerian	Rubbed 1.00	0.70	} 0.10
	Natural 1.00	0.80	
Traveller's-joy (two leaflets)	Rubbed 0.50	0.30	} 0.10
	Natural 0.50	0.40	
Lilac	Rubbed 0.80	0.65	} 0.10
	Natural 0.80	0.75	
Lily of the Valley	Rubbed 3.00	2.90	} 0.05
	Natural 3.00	2.95	
Verticillate Stone-crop (16 hours in the air)	Rubbed 2.00	1.70	} 0.20
	Natural 2.00	1.90	
Yellow Gentian (two bracts)	Rubbed 3.50	3.20	} 0.20
	Natural 3.50	3.40	
Florentine Iris (24 hours)	Rubbed 13.50	11.70	} 0.60
	Natural 13.50	12.30	

Similar results, and even more marked, were obtained when one of the leaves was washed with soap and water, care being taken to note the weight before and after the washing, for it sometimes happens that a small quantity of water enters through the epidermis covering the ribs, and through the stomata.

The following table shows the results :—

Names of Plants.	Weight of Natural Leaves.	Weight after Washing.	Weight after 15 hours' exposure to air.	Loss.
Lilac	Washed with soap 0.67	0.70	0.20	0.38
	Natural 0.67	—	0.45	0.22
Entire-leaved Cle- matis	Washed 0.47	0.52	0.14	0.33
	Natural 0.47	—	0.21	0.26
Sycamore	Washed 4.00	4.50	1.85	2.15
	Natural 4.00	—	3.10	0.90
Red Valerian	Washed 1.30	—	0.30	1.00
	Natural 1.30	—	0.40	0.90
Panicle Phlox	Washed 0.50	—	0.32	0.18
	Natural 0.50	—	0.36	0.14
Siberian Stachys	Washed 0.71	—	0.19	0.52
	Natural 0.71	—	0.55	0.16

These experiments, although undertaken with a different end in view, conclusively show how necessary it is to keep leaves clean, and they likewise point out what may have often been partially overlooked, the very great importance of well washing the under sides as well as the upper. It would also appear that the waxy or fatty matter of the skin has a marked effect in preventing too copious exhalation ; but this more especially applies to plants in warm countries. Next, therefore, to securing a healthy root action, take care to keep the leaves clean, and

your plants will inevitably flourish, whether they be placed in a glass house on the leads of the roof of a city warehouse, or in a greenhouse in the country; for even there dirty leaves may sometimes be discovered as well as in our citizen's garden in the heart of London.

RUS IN URBE.

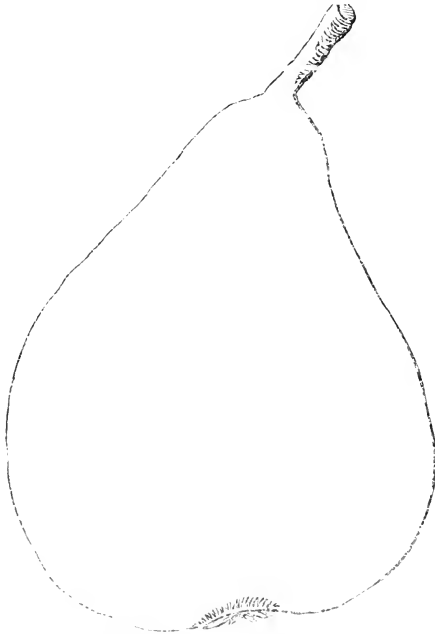
DESCRIPTIVE LIST OF FRUITS.

(Continued from p. 153.)

NEW PEAR.

Baronne de Mello.

This Pear closely resembles a well grown "Winter Nelis," both in the colour and texture of the fruit and general habit of the tree, but is of an obtuse pyriform shape; skin nearly covered with soft light brown russet, intermixed with yellow when at maturity; stalk three-fourths of



an inch long, and inserted without depression; eye small, slightly sunk, and has small narrow calyx; flesh yellowish white, melting, juicy, sugary, and rich, with an agreeable musky flavour; ripe in November; altogether an excellent kind. The trees are hardy, of healthy habit, and very fruitful.

W. POWELL, *Frogmore.*

THE NEW FUCHSIAS OF 1854.

BIRMINGHAM has hitherto been justly celebrated for the introduction of new Fuchsias of first-rate quality, but I regret that this season three has been a sad departure from so wholesome a rule, and that their three new ones, Duke of Wellington, Trentham, and Fanny Webb, do not merit a position side by side with Queen of Hanover, Telegraph, Vanguard, and other new ones. The public was led to expect a Fuchsia of first class excellence in the Duke of Wellington, but with me as well as with others where I have seen it, it is coarse and deficient in colour—the sepals are dull in colour but well reflexed, tube rough and fluted, and corolla not deep enough in colour, even in the young state; it is however a free bloomer and of good habit. I cannot class this as by any means a first-rate Fuchsia. Trentham is a coarse monstrosity, tube and sepals dull scarlet, coarse, and does not reflex. Corolla pale blue purple, with scarlet vein, extending from the base of each division of the corolla, which in almost every flower is a malformation. The plant is long jointed and of bad habit. Fanny Webb has a pinkish white tube and sepals, with a green tip and rose coloured corolla, flower small and not attractive. I shall not grow either of these three varieties again, as the two latter are really worthless; and the Duke, although so free a bloomer, is so deficient in colour and quality that I shall reject it. Clio is a large, bold, free-flowering variety, in the way of England's Glory, with each flower large and well proportioned, and reflexing, although not so gracefully as some other varieties. It has waxy light tube and sepals, with a bright scarlet corolla, and being a dense bloomer, of good habit, with large flowers, it will please all. The gem of the season, however, is Queen of Hanover, which in my opinion has every good point a Fuchsia should possess. The tube is well formed, pure white, with gracefully reflexed sepals of the same colour—the corolla is bright scarlet, close and well formed. In habit it resembles Pearl of England, and is a very free bloomer. Standish's Perfection has a large light waxy tube with pale pink corolla, the sepals having too much pink colour in them, and do not reflex well. It is a very free blooming variety, but does not please me, and I think will disappoint many. Elegans is a *gem*, having a profusion of flower, with but moderate foliage, and is of excellent habit. The flower is of medium size, tube and sepals glossy scarlet, the latter reflexing most gracefully to the top of the tube, corolla exceedingly well closed and of a dense blue purple colour. This is a great improvement on King Charming. Monarch has not bloomed yet, so that I cannot remark on it. Vanguard is a short-jointed variety, of excellent habit, tube short, of a glossy scarlet colour, sepals broad and of the same colour, and reflexing, although not gracefully; corolla rich purple, well closed, but a little stained with scarlet close to the sepals; notwithstanding, it is a first class variety. Autocrat is well named, as it is a bold assuming variety with exceedingly large flowers, which however are more striking than handsome. The tube is of medium length, thin, and very smooth—sepals long, stout, smooth on the outer side and rough inside, reflexing

almost perpendicularly to the foot-stalk; corolla in the young state dense purple, changing as it ages to a deep chocolate colour. This is a very distinct and striking variety. Telegraph is a very good flower, scarlet tube and sepals, the latter too close upon the dark well formed corolla. This variety reflexes well and is of very good habit. Charmer is a well reflexed light variety, with a white tube, and sepals of the same clear colour, rosy-purple corolla, a very free bloomer, and of good habit, and very dissimilar to existing varieties. Magnifica has a well formed tube, with gracefully reflexed sepals, both of a bright scarlet colour, and rich blue purple; well formed corolla, a very free blooming and distinct variety, of excellent habit. There is in the corolla of Omega a beautiful bright slate blue colour that I have not observed in any other variety; tube and sepals well formed, glossy scarlet, and well formed corolla, a very pleasing reflexed variety. Othello is a small-flowered variety, short tube and sepals, bright glossy scarlet, and of good substance, reflexing moderately—small purple corolla, changing to rosy purple as it ages; short vigorous growth and a very free bloomer, and will make a capital bedding variety. Miss Hawtrey has a large stout tube, the sepals stained with pink and moderately reflexed, well formed light scarlet corolla, very free, and a good second-rate flower. Macbeth is a free growing variety, in the way of Glory, with intense scarlet tube and well reflexed sepals of the same colour, deep blue corolla stained with scarlet. *Of last year's varieties*, Glory is one of the best dark kinds, reflexing well. Lady Franklin, waxy white tube and sepals, reflexing moderately, rosy-violet well formed corolla, a large, distinct, and handsome variety. Lady Montague is a large reflexed flower with pinkish white tube and sepals and rosy-purple corolla, which is rather coarse, still it is distinct and effective in collections. King Charming reflexes most gracefully, tube and sepals scarlet, with blue purple corolla, and is a very pretty variety. Dr. Lindley is good—bright scarlet tube, and sepals stout and smooth—thick, well formed, close blue purple corolla. Duchess of Lancaster is a great favourite, as it is an excellent bloomer and very distinct, flower large, waxy clear white tube and sepals, well reflexed, corolla soft rose colour but badly formed. It is, however, a very striking variety and should be in every collection. England's Glory is also a bold striking light variety. I am aware that the varieties I have described will not answer the descriptions in some places, but when the plants are *well cultivated* they will be found correct.

OBSERVER.

[Our own experience fully confirms the facts expressed above. Perhaps we should have more strongly condemned one or two of the new varieties. In the list of old kinds, Banks' Perfection deserves a place as a good free-flowering dark variety, and is particularly fine in a large plant, as must have been observed by those who saw Mr. Bray's plant at the Regent's Park.—ED.]

HINTS ON GRAPE GROWING.—No. II.

BY A GARDENER IN THE COUNTRY.

IN a recent Number I ventured a few remarks on Grape growing, which I now follow up by adding others, among which I must first say something about the kind of house requisite for the purpose, confining myself to what only is necessary, my object being to show how good Grapes can be obtained, at a tolerably cheap rate. Now respecting shape, much may be said to but little purpose. There are good Grapes to be seen in Vineries of very different forms—curvilinear or arched roof, ridge and furrow, span roof, and the common lean-to. But it often happens that people who see finer Grapes than their own in Vineries of a different construction, jump to the conclusion that their house is in fault, and forthwith the bricklayer and carpenter are at work, to remedy an evil which most likely lies at the door of something else. Anon, they perhaps may see yet finer Grapes than the former even, in a house very different in shape; and here, again, *knowing* people guess the secret by which such fine Grapes are obtained is in the house, which is “just what they always thought a Vinery should be,” and they are silently thinking how to remodel their own, to the new standard of excellence, which their neighbours suggest. To obtain good Grapes, as regards the shape of the house, two important points are necessary:—1st, that it be so constructed in reference to shape and aspect, that the largest quantity of light may have free admittance; and 2dly, that it be well ventilated. In putting up a Vinery, therefore (supposing it to be a lean-to), it should either face directly south or a few points to the east or west of south. Ridge and furrow, or span roofed Vineries, should for the same reason have their gable ends north and south, or nearly so. Houses of this construction admit more light during the fore and afternoon than lean-to's, and scarcely so much at noon, which is, however, hardly worth noticing; from occurring at a time of the day when it has reached its maximum brightness, a slight diminution at that time is not felt. But your readers must remember that the internal area of Vineries has much to do in making them light or the contrary; for instance, let us take a Vinery with a glass roof containing 600 or 700 superficial feet admitting light, and that the interior area of the house is 4000 feet; and next suppose the surface of the glass, made to inclose an internal area of 6000 feet (by altering the angle of the roof), it will be self-evident the amount of light transmitted by the roof will be much the same in one case as in the other; yet the smaller internal area will be lightest in proportion to the lesser space it contains; and that Vines, or any other plant growing in the house will be benefited accordingly.

Respecting the second point I named—ventilation—I must observe that all trees having to mature hard wood cannot well do so without free exposure to the air day and night; and I can hardly tell your readers the good trees derive from the winds, which shake and keep their leaves and branches in motion. Now it cannot be expected that the Vine, which has solid wood to form like the rest, should alter its

nature because it happens to be growing inside of a Vinery, and therefore partly excluded from their influence. Not at all. The winds of Heaven are ever grateful to the Vine, as they are to other trees; and they who wish to succeed with the Vine, when confined to artificial treatment, must take care to furnish, by day and by night, a continuous supply of *fresh air*, varying its application (under conditions which will be noticed hereafter) from the gentlest current to a force sufficient to keep every leaf in motion. Air in motion strengthens the delicate fibres found in the soft newly formed parts of plants, rendering them firmer and more elastic, and thereby producing stiff short footstalks to the leaves, and short spaces between the leaves or joints. When freely exposed to the action of air the young wood strengthens itself as it proceeds; and although it grows less in length in a given time, it compensates for this by doing its work better; that is, a given amount of material is packed into a closer space, and as a result there is produced LEAVES thick and fleshy, with short stout footstalks, WOOD, stout and firm, with a comparatively short space between the joints, denoting a fruitful habit induced by the powerful secreting action of healthy leaves, placed under favourable—because *natural*—conditions for exercising their peculiar functions.

Having thus explained somewhat at length the conditions requisite to aid the Grape cultivator, and the results implied by bringing them into action, I will next endeavour to point out a simple form of structure calculated for growing Vines without more trouble than the habit of the Vine demands.

(*To be continued.*)

ROYAL BOTANIC SOCIETY.

THIS Society had, unfortunately, a wet day for its last fête this season, which took place on the 5th ult. The exhibition was a remarkably good one for July; the large area, under the new arrangement of the tents, being well filled with a most brilliant assemblage of rich floral beauty. Stove and greenhouse plants were abundant, admirably grown, and most beautifully flowered, the various Kalosanths making a grand display, and going far to fill the place occupied by the brilliant Azaleas of May. The sweet-smelling, ivory white flowered Stephanotis—the glorious rosy-pink Dipladenia—and the yellow Allamandas, were produced on this the third occasion here this year as fine as at the opening meeting; and of other plants, such as Ixoras, Rondeletias, Polygalas, Vincas, and Apelexis, there was no want of specimens, such as are only to be found in quantity at the great metropolitan flower shows. The various exhibitions of Orchids, with their singular forms and splendid colours, proved as attractive as ever; and even Cape Heaths, which of late it seems to be the fashion to run down, had their admirers. Roses in pots were greatly missed by many, who longed for their familiar faces even in July. Of cut blooms there were plenty; but being arranged on the low side shelves of the conservatory, they

scarcely constituted, we thought, so good a feature as usual. We would describe some of the newer and better kinds here; but as we intend to pay the different Rose establishments a cursory visit early next month, we have preferred postponing our description till that occasion, when we hope to have more time to inspect them, and therefore a greater chance of doing them justice.

Among new plants the most important, in our opinion, was the Woolly Clematis, which happily forms the subject of our present plate. Messrs. Standish and Noble also showed a pale variety of it, which will be an acquisition, producing as it does that great desideratum, an agreeable variety of colour. Of Begonias, of which everybody knows the value in winter and early spring, Messrs. Henderson sent one named Xanthina, whose leaves, independent of the flowers, are very handsome. The same firm had also *Tropæolum incisum*, which looks as if it might be a good plant. It is something in the way of the old *Nasturtium*. Mr. E. G. Henderson sent some excellent *Gesneras* and *Achimenes*. Among the latter the odd-named kind "Sir Trecherne Thomas" proves to be a really handsome variety. Mr. James Veitch, of the Exotic Nursery, King's-road, Chelsea, showed a large and fine plant of *Veronica variegata*. Among other novelties were *Cheiranthra linearis*, of which, though a good blue, we must see more before it can be recommended with certainty. *Echites Pellieri* appeared to be a shrubby species, and if so it may become a plant of some importance. The flowers are clear yellow, and handsome.

As regards *Rhododendrons*, as much interest seems to be evinced about the new kinds from Bootan, shown by Mr. E. G. Henderson, as there was a year or two ago about those from Sikkim. The following is Mr. Henderson's account of six of them.

R. Nuttalli.—This, the largest-flowered *Rhododendron* known, has foliage handsomer than described in books on living plants now in this country; the flowers resembling those of the Lily, are much larger than the Sikkim *Rhododendron Dalhousiæ*. Colour, white, with tint of rose-red, and yellow at the base within, and delightfully fragrant. It has been named in compliment to the veteran botanist and traveller, T. Nuttall, Esq.

R. Windsorii.—This splendid-coloured garden *Rhododendron*, of a colour even surpassing the *Rhododendron arboreum*, will be found invaluable, from its dwarf close-growing habit and large truss.

R. Camellieflorum.—A very curious species, discovered in the valley of Lablung, also on the Bootan Alps; at the latter place growing at an elevation of 9,000 to 12,000 feet. In foliage it resembles *R. Maddeni*; 3 to 5 inches long. Corolla, sparingly scaly, $1\frac{1}{2}$ inch across; of a very thick texture; pure white, with a faint rosy tinge; all the segments obtuse and entire; the flower strongly resembling that of a single *Camellia*, from which its name is derived; a very distinct flower from any other *Rhododendron*.

R. Jenkinsii.—This species, according to a specimen without flower or fruit, in the herbarium of Sir W. Hooker, was found by the late Mr. Griffith, on the Khasya Hills. As a species, it is allied to *R. Maddeni*, of Dr. Hooker; and these, along with *R. sparsiflorum*, *R.*

camelliaeflorum, *R. lucidum*, and *R. calophyllum*, have a very peculiar aspect, all agreeing in their smooth lepidote leaves, and succulent texture. Mr. Booth supposed, from the examination of the buds, that *R. Jenkinsi* would have yellow flowers, the specimens having been collected in the month of December. It is named in honour of Major Jenkins, of the East India Service. If, as is probable, this species has large yellow flowers, like *R. Maddeni*, it will be one of the most distinct exhibition plants in the tribe.

R. longifolium.—A magnificent foliaged plant, discovered in the forest of Bootan, on the slopes of the Oola Mountains, at an elevation of 6,500 to 7,500 feet above the sea-level; the leaves 12 to 18 inches long, 3 to 5 inches wide in the middle; at first, pubescent; at length, smooth, or nearly so; gradually narrowed downwards; obovate, lanceolate, silvery, and whitish beneath. To all appearance, nearly hardy in this climate.

R. Keysi.—A hardy distinct shrub, growing to the height of 2 or 3 feet, on the mountains of Bootan, at an elevation of 9,000 to 10,000 feet above the sea-level, on the summit and northern ridges of the Lablung, forming low thickets, accompanied by Gaultherias and Yews above the range of *R. Hookeri* and *R. Falconeri*; leaves $2\frac{1}{2}$ to 3 inches long, about an inch wide; coriaceous, and smooth; beneath, as well as capsule, almost covered with brown circular resinous scales. Corymb, compounded of three or four branchlets, each containing five or six flowers. Corolla (judging from the withered remains only) tubular; the border five-lobed and reflexed; the segments ovate, obtuse. Rather aromatic, from the resinous scales with which the leaves are clad beneath. In its native hills it grew amidst snows two or three feet in depth. It is allied to Dr. Hooker's *R. virgatum*; the flowers, as in that species, axillary, or below the summit of the branch. A shrub very distinct in habit.

Pinks were shown in good numbers, and in fine condition. Mr. Turner's and Mr. Keynes' stands were much and deservedly admired. They were:—1st, Mr. C. Turner, with Brunette, Teddington, Richard Andrews, Duke of Devonshire, Harry, Jupiter, James Hogg, Climax, R. Smith, Arthur, Optima, Sarah, Lord Valentia, Fanny, Mrs. Hoyle, President, Constance, Criterion, New Criterion, Adonis, Salt Hill Rival, Perfection, John Stevens, and two seedlings; 2d, Mr. J. Keynes, with the following, dissimilar to those in the first collection—Great Britain, Lord C. Wellesley, Sappho, Lola Montes, Mrs. Lewis, Narborough Buck, Koh-i-noor, Lady Mildmay, Ada, Edwards' No. 9, King of Purples, Huntsman, Ruby, Mrs. Judd, and Napoleon. Mr. Bragg was 3d, with the following, not in the two first stands—Mrs. Bragg, Duke of Wellington, Prince of Wales, Goliath, J. Dickson, Lady B. Smith, Eliza, and Desdemona. In the 12 class for *Amateurs*, Mr. Baker, Woolwich, was 1st, with Arthur, Optima, Sarah, Warhawk, Constance, Mrs. Wolf, Criterion, Harkforward, Sappho, Koh-i-noor, Mrs. Norman, and Colchester Cardinal; 2d, Mr. Lawrence, Hampton. Several seedlings were exhibited; the best were R. Andrews, Adonis, Field Marshal, and Mr. Weedon.

Carnations and Picotees were shown, and prizes awarded them.

These came from Mr. C. Turner, and that our readers may know what are early flowering varieties, we subjoin their names. Carnations: Queen Victoria, Ariel, Duncan, Benedict, Magnificent (Puxley), Lord Byron, Prince Albert (Hales), Ascendant, Black Diamond, Talbot, Canute, and Prince Albert (Puxley's) Picotees: Duke of Devonshire, Prince Arthur, Nerissa, Diadem, Mrs. Norman, Helen, Portia, Rosalind, Amazon, Theodore, Bridesmaid, and Medora.

Pansies were getting over, nevertheless there were four tolerably good stands exhibited. Mr. Turner being 1st; Mr. Bragg, 2d; Mr. Bryan, 3d; and Mr. Parker, 4th.

Pelargoniums: Mr. Turner obtained the 1st prize in the Nurserymen's Class, with Magnet, Mochanna, Rowena, Carlos, Enchantress, Optimum, Ganymede, Governor-General (fine specimen), Juliet, Achilles, Azim, and Zeno. Mr. Gaines, who was 2d, had Queen of Purples, Electra, Nandee, Beauty of Montpellier, Governor, Ajax, Fête Noir, Lady Julia, Rosa, Advancer, Arethusia, Seraph, and Andover. Amateurs: 1st, Mr. Holder, with Carlos, Alonzo, Pearl, Mochanna, Optimum, Ajax, Supreme, Narcissus, Boule de Feu, and Magnet; 2d, Mr. Robinson. Fancies: 1st, Mr. Turner, with Electra, Caliban, Celestial, Erubescens, Conspicuum, and Criterion; 2d, Mr. Gaines, with Conspicuum, Delicatum, Vandyke, Alice Maude, Advancer, and Perfection. Amateurs: 1st, Mr. Robinson, with pretty plants of Emily, Delicatum, Fairy Queen, Celestial, and Roland Cashel. 2d, Mr. Winsor, with Magnificum, Duchesse d'Aumale, Parodi, Statiaski, Fairy Queen, and Prince Albert. New Varieties: 1st, Mr. Turner, with Virginia, Carlos, Governor-General (a superb plant, and very fine flowerer), Eugenia, Mary, and Foster's Rosa; 2d, Mr. Holder, with Sanspareil, Basilisk, Medora, Governor-General, Portia, and Pilot. Mr. Turner received a prize for a large and fine plant of Rowena in an 8-inch pot, shown as a specimen. Also a Certificate for Pelargonium Una, a white kin? with large trusses and good habit. Phaeton was shown again, and Mr. Gaines reproduced Conqueror. He had also a group of his French Pelargoniums. Mr. Edwards showed a group of well managed Scarlets.

Fuchsias: These were exhibited in first-rate condition by Mr. Bray, who had Speciosa, Collegian, Pearl of England, Perfection, Madame Sontag, and Elizabeth. These were well flowered and beautiful plants, most of them being about 7 feet in height, and well furnished with branches from top to bottom. Mr. Ward sent Sir J. Falstaff, Glory, Pearl of England, Prince Arthur, and Elizabeth.

Verbenas were shown very good in a cut state, by C. P. Lochner, Esq., Mr. G. Smith, and by Mr. Wetherell. William Barnes, Mdlle. de Freulse, President, and King of Scarlets, were amongst the best varieties already out. Of new kinds, Wonderful, Lilacina, Blue Beard, Admiral Dundas, Lady Lacon, and Boule de Feu, were very good.

Calceolarias were past their best. Messrs. A. Henderson and Co., of Pine Apple Place, sent six small but nicely flowered plants. Mr. Cole, of St. Alban's, sent his fine bright shrubby kind Eclipse.

Mr. Snow, gardener to Earl de Grey, exhibited an interesting collection of Gladioli, in a cut state, comprising some superb and beautifully

marked varieties, the best being *Carneus*, *Enchantress*, *Sanguineus albus*, *Omer Pacha*, *Exquisite*, *Painted Lady*, and *Cardinalis multiflorus*.

Fruit was abundant and good. The best collection was furnished by Mr. M'Ewen, gardener to the Duke of Norfolk, at Arundel. Mr. Fleming, gardener to the Duke of Sutherland, at Trentham, and Mr. Spencer, gardener to the Marquess of Lansdowne, also had collections, of which there were altogether five.

Pine Apples were numerous and fine. They consisted, for the most part, of *Queens* and *Providences*, good examples of which were furnished by Messrs Bailey, Robinson, Bray, Thomson, Bore, and Davis. The best *Queen* came from Mr. James, Pontypool Park, and Mr. Jones and Mr. Spencer both had fruit of this variety. Mr. Robinson sent the best *Providence*.

Grapes were extremely numerous, and very good. The best *Black Hamburgs* came from Mr. Boyd, gardener to Viscount Dillon. These were large both in bunch and berry, finely coloured, and covered with a most beautiful bloom. The same grower had also some excellent *Muscats* with berries nearly as large as *Plums*. Most excellent *Black Hamburgs* were furnished by Mr. Frost, gardener to E. L. Betts, Esq., Mr. Wood, Mr. Stent, Mr. Hughes, Mr. Hill, Mr. Bailey, Mr. Thomson, and Mr. Mitchell, and *Muscats* by Messrs. Solomon and Turnbull. The best *Muscadines* came from Mr. Williams and Mr. Tillyard. Mr. Ivison and Mr. Constantine both had *Grapes* in pots, those from *Syon* extremely good.

Peaches and Nectarines were very plentiful. The best came from Mr. Snow, gardener to the Earl de Grey. They consisted of *Noblesse Peach* and *Violet Hative Nectarine*. These were large, well coloured, and altogether very fine. Mr. Cowan had also beautiful *Royal George Peaches* and *Violet Hative Nectarines*. Mr. Brown sent large and fine *Royal George Peaches*, and tolerably good *Violet Hative Nectarines*. Mr. Chapman, gardener to J. B. Glegg, Esq., had excellent specimens of *Violet Hative Nectarines*, and *Noblesse* and *Bellegarde Peaches*. Mr. Spencer produced *Noblesse* and *Bellegarde Peaches*, and *Violet Hative* and *Elruge Nectarines*; *Downton* and *Elruge Nectarines*, and early *Purple* and *Bellegarde Peaches* came from Mr. Turnbull.

Of *Apricots*, there was a dish of small fruit, said to have been ripened without fire heat, from Mr. Allport.

Plums: Mr. M'Ewen sent a dish of *Green-gage*, and another of some black *Plum* came from Mr. Tillyard.

Of *Figs*, Mr. Snow showed good fruit of *Lee's Perpetual*.

Cherries: the last-named exhibitor had some good *Eltons* and *Black Tartarians*; Mr. Spencer sent fruit of *Bigarreau*.

Among *Melons*, one of the best was a *Beechwood* from Mr. Whiting, of the *Deepdene*, near *Dorking*. Mr. Frost had also a good *green-fleshed*; and *Victory of Bath*, from Mr. Lidyard, was considered good, as was also *Munro's Egyptian Hybrid*. Mr. May was awarded a prize for the *Hoosainee*.

Among *Strawberries* was a seedling called *Omer Pacha*, of which more hereafter. We also noticed a dish of the white *Bicton Pine*.

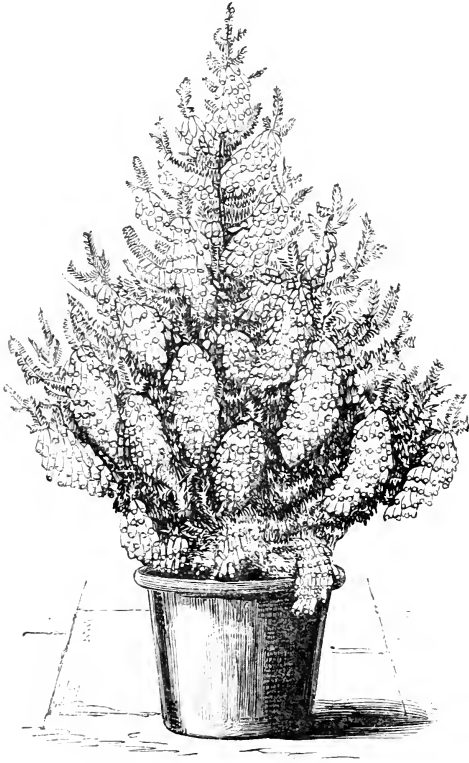
Some interesting tropical fruit was shown by Mr. Ivison, from *Syon*.

ON THE CULTIVATION OF CAPE HEATHS.

HAVING procured some nice bushy plants of the sorts intended to be grown, which had better be done early in the spring, and having prepared sufficient good fibry peat, by breaking it to pieces and mixing with it a liberal quantity of silver sand, and some lumps of charcoal or small pebbles, proceed to shift the plants from 3-inch to 5-inch pots, or from 5-inch to 7 or 8-inch pots, and so on, as the case may be, using the peat coarser for the large sizes than for the small ones, and employing clean, well-drained pots. Press the mould firmly round them; if the peat is light, it must be pressed till it is quite firm, or the plants will probably grow very freely for a time, and then suddenly die. When they are shifted, place them in a cold frame and keep them rather close and shady for a few days, but do not go to extremes either way. Gradually increase the air, and reduce the shading till in fine days the lights are left off entirely.

As the weather becomes warm leave air on all night, and in hot June, July, and August days shade them in the middle of the day, and leave the lights off all night. Many of them would, no doubt, bloom; but if they are slow growing kinds, and specimens are required, I would prefer stopping them all over as soon as they get into good growth. When they require it pass a strong band of matting or string round the pot, and with some fine matting draw the shoots regularly towards the edge of the pot, in order to allow the air to pass freely through them. Any fine woolly growth they may make in the centre had better be cut out, for it only turns yellow and unsightly if allowed to remain. Some of the free flowering kinds may be allowed to bloom, and all those of a straggling habit should be cut back directly after, while those of more dwarf habit may merely have the extreme points pinched off some of them as soon as they can be caught peeping through the flowers; others may be pinched back on the top only, to allow weak side shoots to acquire strength before the leading ones break. The plan of merely taking out the point as it peeps through the flowers will be found useful in regard to some of the late blooming kinds; for by the time the flowers fade, the plant will be found to have broken a crop of buds just behind them. Some of the earliest stopped plants will probably require another stopping by the middle of July, while others will be found breaking freely of their own accord. Those that require it had better be stopped; and as they grow, the shoots must be carefully regulated by drawing them out with fine matting, and perhaps a fine stick or two. Some of the free growing kinds may be shifted again about the same time, if rapid progress is required; but as a rule I do not think it advisable to do so, for very quickly grown plants are mostly short-lived. I prefer placing the plants on inverted pots or pans, and in hot weather keeping the bottom of the pit moist, so as to maintain a healthy atmosphere round them. If the plants are much exposed to the sun the front of the pot must be shaded, and any of them that do not shade the soil in the pot had better have a few pieces of crock placed on its surface.

In wet weather the lights should be kept over the plants, but they must either be propped up by pots at the corners, or tilted by placing a block or pot under one edge. Heaths will take a great deal of water if properly treated; for instance, if a plant is allowed to get quite dry and is then well watered, the pot being filled up two or three times, it will absorb more moisture than that one that is watered a little every day, and the soil will keep sweeter; care must, however, be taken not to let them get so dry as to make their very delicate roots shrivel.



ERICA CAVENDISHII.

As the winter draws on, if there is no proper house for them, with a little care they will winter very well in pits; if by chance they should get frozen hard, if they are allowed to stand in the dark, they will take no harm; and if the weather should be damp and close, a few lumps of lime placed here and there between them will tend to keep them free from mildew, which, however, should be carefully watched for at all seasons, and as soon as it is perceived the parts must be dusted with black sulphur. By following the same course of treatment the next year some very nice specimen plants may be grown, and by persevering with them they will become noble plants, like the fine specimen represented by the accompanying woodcut.

J. B.

BRIGHTON HORTICULTURAL SOCIETY.

THE surest of all tests in reference to the fuller development of the beauties and utilities of fruits and flowers is that of the periodical displays and competition which horticultural fêtes elicit and engender, diffusing gratification and improvement through a wider range of hitherto neglected country; or bringing into fuller force localities but partially represented. Observers of nature, and many there are, who boast of such *penchant*, fail too frequently to give due importance to the good that must arise from the rivalry consequent upon these exhibitions. Nature in her *dishabille* must command attention; but by art how is nature improved! the wild flower how beautiful! But cannot such beauty be enhanced by the cares of the "practical?" Are not our daily increasing wants the better satisfied by the improved qualities obtained through the energies of those whose callings and duties direct them to supply such wants, be they real or imaginary, pertaining to luxury or necessity? And the first step in the course of improvement is to arouse the spirit of inquiry, even to demonstration, and to prosecute both to open competition.

All that the most ardent could desire was traceable in every subject displayed by the county exhibitors. At the first meeting for the year, of this Society, in the Pavilion, on the 28th ult., no longer were the London lions all predominant, the honours this time being fairly shared and nobly won, and will each year be augmented so long as the sinews are forthcoming, to enable the management to secure the co-operation of the great and good men of all England, on the generous soil of Sussex.

Much could be advanced on the good which these national demonstrations bring into play; the Carnation, Picotee, and Tulip, are each ably cared for under this irresistible national banner; the Dahlia, as the leading autumnal flower, received a most important "fillip" at the hands of the Sussex gentlemen last season, as was duly recorded in these pages. Would that every county of this our tight little island would go and do likewise.

Pelargoniums, Fuchsias, and cut Verbenas, were by far the most prominent features of the meeting; for while other subjects were amply represented, these were in all their peculiarities produced in the highest order, the Verbenas, indeed, superlatively fine. Mr. G. Smith, of Tollington Nursery, Hornsey, Middlesex, only just maintained his A 1 position, with nothing to spare, disputed by C. P. Lochner, Esq., Paddington, 2nd; Mr. Weatherall, of the home division, 3rd; and Mr. Atkins, 4th. Often have 1st prizes been awarded to much worse specimens than were contained even in a rejected stand on this occasion; the most striking varieties were Shylock (in No. 2 stand), White Perfection, St. Margarets, Violacea, Boule de Feu, Mrs. Gerard Leigh, Caliban, Beauty, Islington Rival, King, Nobilissima, Geralda, Purple King, Madame Schmidt, Pandora, Koh-i-noor, Madlle. de Freleuse. Best Six Fuchsias, Mr. Knight, with Duchess of Lancaster, Voltigeur, Prince Arthur, Bride, Glory, Madame Sontag; 2nd, Mr. Atkins, with England's Glory, Expansion, Cartoni, and three others already named.

Mr. Robinson, of Pimlico, received 1st prizes for both classes of Pelargoniums; the second specimen prize for Fancy Fairy Queen, and an extra prize for six neat plants, in six-inch pots. The sorts shown by Mr. Robinson will doubtless be found in this and previous *Florists* for June and July. Other exhibitors were, Mr. Parsons, Mr. Drover, Mr. Lambert; with such convincing proofs of improved varieties, it is strange to find growers yet cling to Sylph, and others equally antique.

Pinks, as with Verbenas, were nearly evenly balanced; Mr. C. Turner, Slough, 1st; Mr. Baker, Woolwich, 2nd; and never were two twenty-fours more closely matched; and in the rear, as third, was Mr. Parker, Dalston. The best sorts were Narborough Buck (coarse), Richard Andrews, Sarah, Duke of Wellington, President, Constance, Harry, New Criterion, Brunette, Lola Montes, Duke of Devonshire, Prince of Wales, Richard Smith, Mr. Hoyle, Jupiter, Optima, Juliet, Criterion, Adonis, Mr. Hobbs, Mrs. MacLean, Desdemona, Mrs. Wolff, Koh-i-noor, Mrs. Norman, Lord C. Wellesley, Colchester Cardinal, Harkforward, Kate, Beauty of Salt Hill, and Jenny Lind.

Roses were plentiful and fine; Mr. J. Mitchell, of Piltown, contributed a very fine collection of fifty, to which a 1st prize was awarded; 2nd, Mr. Bunney, gardener to J. Slater, Esq.; 3rd, Mr. Toogood. Twenty-fours: 1st, Mr. C. Carter; 2nd, A. Rowland, Esq.; these were open classes. The county class was well represented, the most telling varieties being Crested Moss, Triomphe de Jausseus, Chénédole, Lady Stuart, Baronne Halley, Caroline de Sansal, Capt. J. Franklin (new), Gloire de France, General Castellane, Jules Margottin, Madame Domage, Madame Rivers, Madame Philip, Madame de Manoel (the last eight being new and fine sorts), William Griffiths, Souvenir de la Malmaison, Boidron, Comte de Paris, Elise Sauvage, Madame de St. Joseph, Mareschal Bugeaud, Moire, Niphotos, Souvenir d'un Ami, Vicomtesse de Cazes, Paul Ricaut, Coupe d'Hébe. Thirty-six Pansies by Mr. Turner were good specimens for the end of June; the varieties were those hitherto recorded. Twenty-four Ranunculuses had a first prize awarded to them; the best were Edwin, Mr. Shilling, and Demosthenes; these were staged by Mr. R. Parker, of Dalston.

Wax flowers were numerous, and for the most part well executed.

Mr. Colyer sent the best eight plants, the best eight Ericas, and the best specimen, together with a very large Erica Cavendishi, to which an extra award was made; it is needless to say more than that they maintained the well-earned reputation of the far-famed Dartford collection. The indefatigable Mr. E. Spary, general superintendent, staged a nice little plant of Fuchsia Duke of Wellington (Moore); this variety, however, wants both contrast and refinement.

Some well done Gloxinias were staged, and as a distinct set the following may be selected:—Wortleyana, Victoria Regina, Cartoni, Imperialis, Marie Van Houtte, Spectabilis, and Fyfiana.

The band of the Coldstreams was in attendance, the delighting strains of which, together with congenial weather, materially assisted to a perfect realisation of the committee's most ardent wishes.

“A pleasant day well spent.”

J. EDWARDS.

NOTES FROM KEW.

DRYMONIA VILLOSA. A pretty flowering Gesneraceous plant, of which there are two species at present cultivated; they are succulent or soft wooded evergreen hothouse kinds, and are both interesting, though probably not so much to amateur cultivators. *D. punctata* has been introduced many years; it is of a slender trailing habit, and if grown in a basket filled with pieces of fibry peat, sand, sphagnum, and rotten wood, and suspended to the roof of a moist stove, the stems hang down and have a graceful appearance; it flowers during summer, the flowers are pretty, of a good moderate size, and spotted. The present one is of an erect branching habit, and may be easily formed into a compact specimen, it grows about a foot and a half high, flowering freely while in a young state; a light soil similar to that used for *Achimenes* is the most suitable to pot it with; well drained, and if grown in a moist stove heat it flowers copiously, and will be found a good addition to *Gesneras*, *Achimenes*, and other such like summer flowering things; the leaves are rugose, of a light green, flowers white, from one to two inches across the limb, and purple within the tube. The whole plant is densely clothed with soft hairs throughout; its flowering season is the summer months.

CRINUM ORNATUM VAR. AFRICANUM. A large handsome flowering Lily from South Africa. This is one of the many beautiful flowering Lilies abundant in gardens, and is one that with advantage may be brought forward in a little heat during spring, until the commencement of its flowering season, when it should be removed to the greenhouse or conservatory, which will prolong its flowering; and being a large showy flowering kind, it is a fine object for decoration. It has a large bulb with leaves 3—4 feet long, the flower stem is stout, erect, three feet high, bearing on the apex an umbel of 9—10 flowers that are very fragrant and much resemble in form those of *Gardenia Stanleyana*; each flower is 9—10 inches long, white, delicately shaded with pink on the outside. It flowers in June and July.

OXALIS HEDYSAROIDES. A slender growing shrubby species, attaining the height of two feet. It has been recently introduced to Kew from the continent, and is an addition to the shrubby part of this genus. It is an hothouse plant, having hairy leaves and bright yellow flowers.

SOLLYA DRUMMONDI. An exceedingly neat looking evergreen greenhouse twiner, and one of the best of this genus. It is a Swan River plant, and was raised at Kew, from seed, about four years ago; being of very neat habit, an abundant bloomer, and one that can be brought to perfection in a very moderate sized pot, it ought to be found in every collection; both stems and leaves are rather small, the flowers are borne copiously throughout the whole plant, are of a very bright blue, and remain for a considerable time in perfection. It keeps flowering throughout the summer months.

STYLIDIUM ARENARIA. All the species belonging to this genus have a very peculiar property, and are highly interesting, on account of the sudden elasticity of the style when touched or raised a little with a pin or any other small instrument, which causes it instantly to turn over in a diametrically opposite direction. There are many of them in cultivation, all low growing herbs, chiefly from various parts of New Holland; some of them may be cultivated with great facility, others are oftentimes found difficult to manage, as they are apt to die during winter if kept too hot or too wet; a cold frame or greenhouse is best to keep them in, potted with very sandy peat intermixed with potsherds broken very small, and kept rather dry during winter. The present subject is one of the best of them; it grows in a close tuft, has grassy leaves 8—10 inches long, with an erect flower stalk a foot or more high, bearing a raceme six to nine inches long of rosy purple flowers, each having a white centre. This is not a very common plant in collections, being usually lost by too much moisture in winter, several plants of it here are at present in flower in one of the greenhouses, and have a very pretty appearance.

Royal Botanic Gardens, Kew.

J. HOULSTON.

HORTICULTURAL SOCIETY.

July 8.—The last exhibition of this Society took place under more favourable circumstances than the two former ones; the day, on the whole, was agreeable, and the Gardens being honoured with the presence of the Queen, Prince Albert, the Prince of Wales, and Prince Alfred, in the afternoon, contributed largely to make the exhibition especially attractive. The Royal party appeared to take great interest in the various horticultural productions displayed for competition, which, both in respect to plants and fruit, were superior to what we remember ever having witnessed at a Chiswick July show.

In addition to the usual amount of Stove and Greenhouse Plants, were several collections with variegated finely leaves, furnished by Messrs. Veitch, Rollisson, and the two Hendersons. This class of plants is fast becoming favourites, and, with some groups of plants remarkable for fine foliage, contributed by the above-named gentlemen, made an interesting feature. We must, besides, notice a most admirable collection of rare Ferns and Lycopods, sent by Messrs. Veitch, which attracted great attention.

Several new plants of great promise were shown, principally by the Messrs. Veitch; among these, cut blooms of a charming species of *Dipladenia*, with deep rosy crimson flowers, much larger and deeper in colour than *crassinoda*, struck us as being the finest. Having obtained permission from the Messrs. Veitch to figure this and his other new things in *The Florist*, our readers will have an opportunity of learning full particulars respecting them in our coming numbers.

The other plants were, in most respects, similar to those exhibited at Regent's Park on the 5th, and therefore it would be a repetition to enumerate them here.

The show of Fruit was extensive; several collections were exhibited. Mr. Ingram was placed first, his collection containing some fine fruit, particularly a Cayenne Pine, beautiful Elruge Nectarines, Bellegarde Peaches, and four dishes of forced Plums, which were really admirable. In the other collections we noticed some fine Moscow Queen Pines and good Grapes and Melons from Mr. Fleming; Violette Hative Peaches and Elton Cherries from Mr. Snow. After Mr. Ingram's Nectarines and Plums, perhaps the next remarkable production was a bunch of Cannon Hall Grapes, from Mr. Strachen, upwards of 4 lbs. in weight. Messrs. Frost, Hill, and Fleming again showed fine specimens of Black Hamburg Grapes, and some good Muscats were exhibited, but generally they were under-ripe. Messrs. Brown, Wright, Dods, Munro, and others, had respectively fine Peaches and Nectarines. Of Strawberries, Mr. Lydiard, of Batheaston, had some capital fruit; but the best dish of Strawberries (British Queen) was sent by Mr. Bates, of Moulsey: five dishes of Seedling Strawberries were on the table, which we shall hereafter notice. Cherries, Figs, and Melons were of about average quality; the latter, perhaps, owing to the sunless weather, excepted.

Now that the great Metropolitan Exhibitions are over for the

season, and the executive of each society will be preparing any alterations in their respective schedules which the experience of the past may render necessary, our advice to the exhibiting body is that they make their desires known as early as possible to the respective councils of each society. The Royal Botanic Society, however, have liberally met the wishes of the exhibitors of the past season, which has been responded to in a manner of which the society may well congratulate themselves, as their list of awards (published in the *Gardeners' Chronicle*) fully proves, and which, we regret to state, stands out in broad relief to the very limited list of the Horticultural Society. We hope this will no longer be the case; for the authorities in Regent Street may rest assured that a liberal schedule would be met by an increased desire on the exhibitors' part to keep up the character of the Chiswick fêtes.

REVIEW.

A Plain and Easy Account of the British Ferns. Hardwicke, Carey Street, London.

THIS is an attempt to describe the different species of this charming tribe of plants in words of common use, technical language being altogether avoided. How far the author has succeeded may perhaps be best illustrated by the following examples:—

“¶ Sori contained in little two-valved vessels, which spring from the branch near the stem.

Genus HYMENOPHYLLUM.

“HYMENOPHYLLUM WILSONI. (*Northern or Wilson's Filmy Fern.*) Like Tunbridgense, but taller, and in proportion narrower. Stem curved above, and branches inclining downwards. From 3 to 4 inches. When in bearing, cups turning in one direction and leaves in the other. Seed-vessel larger, more rounded valves, stalked, with smooth lips above, somewhat like the end of a duck's bill, instead of being cut off and notched. Same situation and localities, though a trifle more common. Treatment as before.”

“¶ Sori naked, forming a fertile, branched, composite, spike, on the upper part of a barren, leafy, frond.

Genus OSMUNDA.

“OSMUNDA REGALIS. (*Flowering Fern.*) Root tufted. From 2 to 4 feet in dry, from 8 to 12 feet in damp, sheltered, situations. Fronds springing up rather under one another. Branches far apart, and generally opposite. Leaves simple, undivided, smooth, stalked, narrow, oblong, with more or less of a protuberance at their base; at first very tender, and of a reddish colour, changing to a dull green, and slightly jagged throughout. Fertile spike ordinarily the termination of the stem, and above the leaved branches belonging to it, though sometimes the sori are produced on the branches themselves, or even on the edge of a leaf. Fertile spikes fewer than branches. Each stalked and oblong bunch of the spike composed of a succession of circular clusters of thecæ, green at first, ripening into brown. Deciduous. Comes out early. Common in marshes and damp situations. Stem eventually tough and wiry. Easy of cultivation. Best transplanted arge. Hardy. Though wanting in the graceful and elegant undulations

and variations of leaf, which are the peculiar beauty of the tribe, yet justly admired for the contrast it affords by its fine bold appearance."

Though acknowledged to be mainly indebted for its contents to works on Ferns, already well-known, and therefore containing little or nothing new, this little manual will doubtless prove useful. It is furnished with an index to the genera at once descriptive and ready of reference, and at the end with a glossary of technical terms.

HORTICULTURAL SOCIETY.

AT a meeting held on the 25th ult., in the rooms in Regent Street, were one or two subjects of interest; Mr. Smith, gardener to Mrs. Reay, was awarded a first prize, for a collection of vegetables. Mr. Veitch, jun., exhibited a cut specimen in a pot of *Desfontania spinosa*, which is reputed to be hardy. Without the flowers it might easily be mistaken for a Holly, which it resembles in every particular, except in the blossoms, which are long scarlet tubes, yellow at the top. If a free flowerer, it will be a valuable acquisition.

The yellow *Cattleya citrina* came from Mr. Dunsford. A terrestrial Orchid, with a long upright spike of yellow flowers, and shown as "new from Africa," was reported to be the well-known *Lissochilus speciosus*. This came from Mr. Keele, of Woolwich. Mr. Williams had a cut spike of a handsome new *Schomburgkia*. Mr. Yates, of Manchester, received a certificate for a flowering branch of *Renanthera coccinea*. A similar award was made to Mr. Wrench, for fruit of Myatt's Pine Apple Strawberry, one of the best flavoured sorts in existence, but unfortunately a shy bearer, and on that account it has nearly now disappeared from our markets. A white Grape, well flavoured, and said to be a seedling from the Black Hamburg, came from Mr. Carpenter, of Birmingham. There were some large and fine Pine Apples. Mr. Jones, of Dowlais, had a Ripley Queen, 6 lbs. 12 oz., and another 5 lbs. 2 oz.; also a Providence 10 lbs. 2 oz.; Knightian medal awarded. Mr. Davies, of Astle Park, showed a Providence 9 lbs., and some good Peaches; Bank-sian medal awarded. A similar award was made to Mr. Joy, of Roundhay, for a Providence 7 lbs. 10 oz., and two Queens, each 4 lbs. 5 oz. A certificate was assigned to Mr. Kinghorn for a dish of black or rather very dark coloured Apricots, which, although a curiosity, were worthless in point of flavour. St. Margaret's Cherry, a large black kind like the Circassian, also came from the same exhibitor. Mr. Chapman had six fruit of the Stanwick Nectarine, for which he received a Certificate. Two plants of a Yam called *Dioscorea Batatas*, which is expected to prove an excellent substitute for the Potato, were produced from the Jardin des Plantes at Paris. Large Silver Medal awarded.

From the Society's Garden the best plants were the beautiful blue *Platycodon sinense*, and a white variety of the well known half hardy biennial *Trachelium cæruleum*. Though not showy, it makes a desirable plant for many purposes, on account of the multitudes of flowers which it produces, and the beautiful symmetry displayed in their arrangement. The garden also supplied some fruit and vegetables.

CALENDAR FOR THE MONTH.

Auriculas.—Give the plants a good fumigating, to destroy any green fly that may infest them. Early in this month the general repotting should take place, using well prepared sweet soil. The pots, if old, should have been well washed; the size must depend on the strength of the plant: three and four inch pots will be suitable for the greater part of them. Use plenty of drainage. Young plants that have not yet flowered, and that are in small pots, will require a repotting into a larger pot after reducing the ball of earth. Seedlings should be encouraged to grow, by potting the strongest of them singly; the weak plants may be put three into a pot, for a time, until they are large enough to be treated in the same manner.

Camellias and Azaleas.—Camellias will by this time be mostly out of doors; attend to their wants with water, and guard against their being blown over by the wind. Azaleas which have formed their buds may be at once set out in a sunny exposure. Protect the pots, however, from being acted on by the mid-day sun, or injury to the plants, if not death, will be the consequence.

Carnations and Picotees.—The general layering of these plants should be proceeded with without delay; all should be laid down by the 20th of this month: if a week earlier so much the better. Those in beds should be done the latter part of July, as they do not root so readily as when grown in pots. Transplant pipings into sandy soil as soon as struck, to encourage a good growth before they are potted for wintering. Seed is best secured by placing small glasses immediately over the pod, keeping all wet from it, but allowing plenty of air.

Conservatory.—Air in abundance on all opportunities, to keep the wood from drawing. This is the more necessary from the amount of shade required for these structures in hot weather to render them comfortable. Keep as few extra plants in the house as possible, in order to give the proper treatment to the permanent stock. Bring forward a supply of Lilliums, Scarlet Geraniums, Fuchsias, Gladiolus, &c., for the show house, as well as Balsams and other showy annuals.

Cinerarias.—Pot off cuttings as soon as struck into small pots, repotting them again as soon as they have fairly reached the sides of the pot. Cuttings may still be put in for a succession. Seedlings should also be repotted and used in a similar manner; mildew is the principal evil to guard against. Sulphur the leaves immediately on its appearance. They are easily grown if they receive proper attention at the proper time, and no class of flowers sooner repays the little care bestowed on it than the Cineraria, with its lively flowers in early spring.

Cucumbers.—Sow for winter, if not already done. See a very excellent article on this by Mr. Saul in our last Number.

Dahlias.—Continue regularly to water over the foliage every evening during dry weather, and give a good watering at their roots occasionally, according to the weather. If not already mulched it should be done

without further delay, using partly decomposed manure. If the plants are attacked with the black fly, so prevalent this season, the best remedy is to make them grow as fast as possible, so as to grow out of it. Defer thinning the shoots and disbudding for a time, when it should be performed but sparingly at first, leaving a considerable number of buds on the largest varieties. Tie out the side shoots, as soon as they are sufficiently long, securely to stakes of a smaller size than those used for the centre of the plant.

Flower Garden and Shrubbery.—The wet dull weather of June and July keeps the plants from growing freely. When once they do cover the beds a freer habit may be allowed. Let everything wanting support be provided in due time with proper stakes, &c. Attend strictly to neatness both in the borders, lawns, and gravel walks.

Forcing Vinery.—If the leaves of the earliest forced Vineries and Peach houses are turning yellow, the sashes may be removed at once. Continue a dryish heat and good ventilation to Grapes now colouring. The last house should be finally thinned; Muscats, if not ripe, will want fires in wet weather.

Hardy Fruits.—Proceed with cutting back, as advised last month, and nailing in the summer wood. Keep down aphides, which this year swarm by myriads over all descriptions of wall trees, particularly stone fruits. The sooner Strawberry plantations are made the greater the chance of a crop next season; rich deep loamy soil, with a good dressing of dung, is the thing for them; remove runners from established plants, unless wanted for stock.

Hollyhocks.—Secure these well by stakes placed firmly in the ground; a small piece should be pinched out of the top of each spike: this will have the effect of producing larger flowers. Cuttings should be put in as often as they can be procured.

Kitchen Garden.—Let the remains of the spring crops be cleared off the land directly they are over, to make room for additional plantings of Broccolies, &c. Sow Spinach to stand the winter, and plant a breadth of Endive. The usual hoeing and cleaning growing crops of all kinds must be attended to. Sow a good breadth of Turnip (Early Stone, or Green-leaved), to stand the winter. Cabbage for the first crop should be sown without delay;—Wheeler's Imperial, Heale's Brompton, and Sutton's Matchless, are all good early kinds. Cauliflowers to stand the winter in frames and for hand-glasses should be sown from the 18th to the 25th, according to the locality. Onions and Lettuces for standing over the winter, sow towards the middle of the month. Earth up Celery, Leeks, and Cardoons, for the earliest supply.

Melons.—Maintain a steady bottom heat to advancing crops; turn out the last crop.

Orchids.—Those kinds which appear to have done growing may be gradually exposed to more light and a drier atmosphere preparatory to putting them to rest. Keep up a moist atmosphere to plants in full growth, and mind that those on blocks, &c., are kept duly moistened, or a cessation of growth will take place too soon. Growth

should be encouraged to its utmost limits, if fine strong plants are desired.

Pansies.—Plant out young stock as soon as rooted, and continue to put in cuttings; the surface of the beds containing the plants first struck should be often stirred. If a large increase is required, the tops may be taken off and put in as cuttings. Seed should now be sown, and sulphur any plants that are attacked with mildew.

Pelargoniums.—Those not already cut down should not be delayed, or the young stock will be late; pot off young plants as soon as sufficiently rooted, the strongest of which intended for specimens should be selected, and have an extra shift this month, that a considerable growth may be made this autumn. Seed, as it ripens, should be sown in pans or broad topped pots, which should be slightly shaded in very bright weather. The first cut down plants—those intended for early bloom next spring—will be sufficiently broken to be shaken out of the old soil towards the end of the month, and after being disrooted be repotted in fresh soil, in a size smaller pot. Place them in a frame or close house for a time, keeping them near the glass, and close shading during the day. Dry the plants every morning by giving air, and harden them gradually as the roots reach the pots. Fancies require very similar treatment; the soil, however, should be a little lighter.

Pines.—Fruit for autumn and winter should now be showing up. Keep the syringe from the fruit while in bloom. Successions pot into fruiting pots, and plant out. If grown on the open bed system air in large portions at this stage is indispensable.

Pinks.—Transplant cuttings from the piping bed into light sandy soil, choosing a dry day. Pinks do not like being saturated with wet immediately after being planted. The soil should be free from wire-worm. The beds after planting out should often be examined, by looking for grubs, which are very destructive to young plants.

Roses.—All localities are not, we hope, so sadly infested with aphides as several we have lately seen. The usual remedy of syringing with tobacco-water has the desired effect, if applied in time; but where honey dew has covered the leaves, a soft brush and water is the only method of cleansing them, taking care to search the under side of the foliage; help, however, may be expected from lady-birds, whose larvæ we have seen pretty plentiful during the last few days. Be careful not to disturb the birds which are seen near the plants. Continue to remove decaying blossoms as before directed. Liquid manure should now be freely administered. The doubtful autumnal bloomers, as William Jesse, Duchess of Sutherland, &c., will be much more certain of flowering late if half of the strong shoots of this year are now reduced half their length.

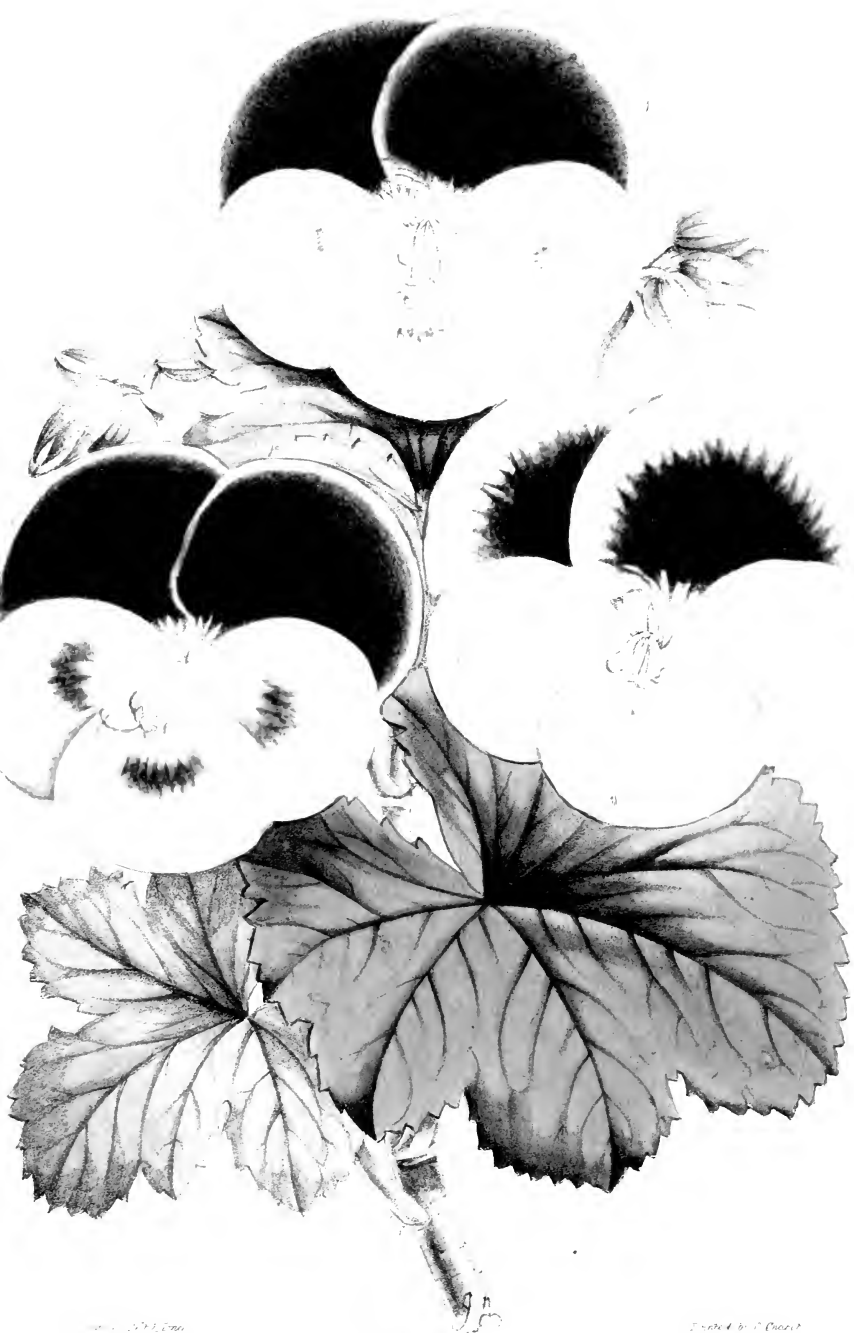
Stove.—Stove plants are now growing freely; more air may be allowed, and inure them to more light by reducing the shading; this will help to keep the growth compact, and will assist plants done blooming to ripen their wood. Regulate climbing plants. Attend to potting, &c., plants to bloom late in the autumn; these may now be fully exposed, to arrest their growth and induce an early bloom.





J. G.

Phlox paniculata
Phlox paniculata
Phlox paniculata



1844. 1845. 1846.

N. L. L. L.
N. L. L. L.
N. L. L. L. } Beck

1847. 1848. 1849.



SEEDLING PELARGONIUMS.

(PLATES 91 AND 92.)

WE present our readers this month with a double plate, representing some of the new varieties of our three largest raisers, Messrs. Foster, Hoyle, and Beck, and which are to be sent out in the autumn of the present year. In spite of some severe remarks from the editor of the *Gardeners' Chronicle*, this flower has lost none of its popularity, and we doubt if it was ever so largely or so well cultivated as it is at the present time. Indeed, we have heard that several leading nurserymen were unable to supply the demand for the best varieties during the past season; and from the enquiries for lists of the superior sorts addressed to ourselves, we are quite satisfied that raisers of seedlings have only to go on and prosper. One thing we would earnestly impress upon them, and that is, to use every means in their power to increase the varieties of colour, a thing much required in a first-rate collection. It should always be borne in mind that contrast is necessary to produce effect, and that brilliancy loses half its claim to our admiration if it has nothing to relieve and set it off. We know from experience how difficult it is to obtain some colours in combination with good habit of plant and bloom. Year after year we have had intensely bright colour—rich purples, the deepest maroons, &c.—and yet accompanied by faults of such a character that we could not propagate—could only seed from them, hoping in time to get all we required. We are always encouraged when we meet with desirable colour ALONE, because it tells what is in store for him who does not allow himself to be disheartened, but perseveringly proceeds with a determination to succeed. We would add that, with every care, it is impossible for the artist to give the exact colours of nature. In the present instance the drawings were made from the plants, and we trust our readers will see the latter all frequently exhibited in the winning collections of next season.

In another page Mr. Beck has supplied a short account of the flowers raised by him, and now in the hands of Dobson and Son.

As regards the two varieties figured in Plate 92, they are both free bloomers of good habit. Both flowers took first-class certificates at the National Floricultural Society, on which occasion the following description was taken of them:—

“Phaeton: A rich orange scarlet, stout, smooth, and of good form; also a free bloomer.”

“Wonderful: This is a large flower, of the finest form, with smooth stout petals. The top petals are dark maroon, shaded off

to the margin with orange and rose. The lower ones are deep pink. Large white centre."

Phaeton was raised by E. Foster, Esq., Clewer Manor, in 1852, Wonderful by G. W. Hoyle, Esq., in 1853; and from what we know of the constancy of both varieties, they will add fresh laurels to the names of Foster and Hoyle as successful raisers of the Pelargonium. These will be sent out from the Slough nursery.

WALLS AND THEIR OVERCOATS.

THERE is perhaps no subject connected with gardening at the present time on which a careful discussion is more likely to be useful than the protection of fruit trees on walls from the inclemencies of our variable climate; and many gardeners will have been pleased to observe that you have given prominence to the subject. That it may be well considered by all who are interested in the matter is much to be desired, and also that they will freely give their aid in furnishing such information as shall lead to useful and practical conclusions upon the subject.

Allowing your articles in the early part of the year to pass for the present, I will briefly review the correspondence they have given rise to; namely, the letters of Messrs. Ewing, Saul, and "J. M." I may as well mention, however, in this place that the present article was partly written before the last mentioned letter appeared, and which has rendered a portion of my intended remarks unnecessary.

At the outset I must express a hope that any further discussion may be conducted in a gentlemanly manner; for however much any of us may differ in our ideas with others, we may avoid acrimony without in the least weakening the force of our arguments.

I will premise, then, that our object is to arrive at a true knowledge of the best mode of protecting the half-hardy fruits we cultivate, according to our experience of the general character of the seasons we are subject to in the present age of the world. All those who have at present entered into the subject admit that some further shelter is necessary at certain seasons than that afforded by a simple wall. It will be then for us to consider how much more, and the description best adapted for the purpose; whether it should be only temporary, or whether it is an advantage to be able to use it at any part of or all the year; whether it is generally required, or only in rare cases; and, finally what is the best, *i. e.*, the cheapest and the most effectual, and therefore the most paying mode of affording it. This, we must all allow, is the only proper way of viewing the subject, both by gentlemen and their gardeners, as well as by the growers for market. For, although the gentleman may have, and the gardener may seem to have, extensive and even abundant means at his disposal, it is the interest of the former, and the duty also of the latter, to be as careful in considering the most effective and economical mode of procedure, as if they

were bound to make a profit out of the results. If the gentleman chooses to use ornament for the gratification of his taste, it is as easy to add and adapt it to useful appliances as to combine it with those that are not so; and there are few gardening establishments, large or small, in which there cannot be found *ways*, both useful and ornamental, of expending more *means* than are available.

I have thus stated my question, and appointed its limits; adding, however, that my remarks will apply to the more tender fruits, such as Peaches, Nectarines, and Apricots. I shall also presume that other essentials to health have full and sufficient attention; that the pruning, disbudding, cleaning, and training are done properly, and in season; that the borders for the roots are sufficient and good; and that they also receive proper management in regard to pruning, when and where necessary.

Mr. Ewing assumes protection to a considerable extent to be indispensable; in this I quite coincide, excepting, perhaps, in exceptional cases, of which those of Mr. Saul and his neighbours are fortunate instances. If, however, we give credence to Mr. Saul, that simple means of protection invariably answer every desired purpose with him, we must, while we congratulate him on his fortunate locality, demand credence on his part that such cases *are* exceptional. It is not requisite to multiply instances concerning our late seasons, and their effects in destroying crops and killing the trees, even where every attention has been given to their proper management; and when not only Fir branches, but canvas blinds, projecting copings, and all other appliances short of well contrived glass coverings have been freely used. "J. M.'s" remarks on this subject can be corroborated by nine out of ten of the practically experienced gardeners in the country. That there are exceptions I have already allowed, and not one of us is there otherwise circumstanced who does not heartily wish he were out of the general rule. Now, if I am allowed to stand upon this assertion, I at once get rid of a large portion of my question, by arriving at the inference that nothing less than well-arranged glass structures will secure our trees and their crops against the vicissitudes of the seasons. If, then, glazed protection is generally indispensable, we have to consider the description of structure, and also the quality of the workmanship; perhaps the latter should stand first.

It seems strange at this advanced period of the famous nineteenth century that it should be necessary to enter into elaborate arguments to convince people of the absurdity and wastefulness of penny-wise-and-pound-foolish modes of doing anything, yet we see horticultural structures *blown together* in the most rough and ready way by the cheapest, and therefore the worst, artisans—of the cheapest, and therefore the least durable, materials—and more than all, the mode is put forth almost as an original and important discovery; or at least as an improvement on the usual way of doing things. Now, I am not in any way interested in keeping up extravagant prices, either of material or of workmanship; perhaps few have done more than myself in securing to my employers the advantages of substantial work at reasonable rates, my practice being to have all work of the

description alluded to done by good plain artisans, under my own superintendence, and with materials of excellent quality, brought direct from the prime dealers at trade prices. But under *no circumstances* could I recommend any one to invest money in erecting buildings of a non-durable description, least of all when intended to shelter objects which are calculated to endure many times longer than they themselves can possibly hang together. Even when the owner has only a temporary interest in the land he builds on, we well know how rapidly their value deteriorates if not well and properly built. But in the opposite case, they may in valuation be worth almost all their prime cost, especially if painting and other matters of repair, essential to the well-being of the occupants, have been duly attended to. We will affirm, then, that the structures, of whatever conformation, should be on good brick foundations, built hollow above ground for the sake of warmth and dryness. The timber should be sound and quite dry, that the work may all be painted at least once before it leaves the shop. The plates may be of oak, if convenient; but it should have been cut down two or three years before use, during one of which it should have lain *in plank*. The rafters should be of good Baltic timber, sound and dry. The sashes should all be moveable, especially those forming the roof; in this there are many decided advantages, amongst which is the power of exposing the trees to rain, &c., at certain seasons if desired, and the facility with which the glass or wood-work can be cleaned or painted when necessary. The sashes should be constructed of good Petersburg red Deal, sufficiently clear and free from knots to prevent loss in cutting up. The glass should be in panes not less than nine inches wide, nor less than thirty inches in length, and of *genuine British sheet*. I am aware I am here drawing upon myself a host of opponents, but I am sufficiently satisfied in my own mind that the British sheet derives any unpopularity it may have acquired from one of two causes, either from defective or neglected ventilation, or from German glass being put in instead of it by dishonest contractors, or sold as such by cheap advertisers. These are the principal points of a mechanical nature to be attended to; there are other ones of great importance, but I may have already too far entered into a treatise on building, and will not trespass further upon this part of the subject. My object has been to enforce the distinction between true economy and so-called cheapness, and to point out a few of the essential principles to be observed in doing work substantially.

I next come to consider the relative merits of the different modes which are before the public. They are three:—the Orchard House, for trees either planted in pots or in borders, the Glass Wall of Mr. Ewing, which is, in fact, a narrow span-roofed house, and the Glazed Wall, of which there are two varieties, the narrow lean-to house, like the engraving in page 83 of the present volume, and the glazed wall with upright front sashes and narrow span-roofed top, as used by Mr. Fleming, at Trentham, described in the *Gardeners' Chronicle* two years since, and alluded to in your notice of that place, page 102.

In pursuance of my plan, I will consider what are the desiderata in such a structure, and then examine which of the above kinds answers most nearly thereto. It occurs to me, however, that the article is

becoming too long for one number; it will be better, therefore, to postpone this part of the subject till next month, especially as I hope to have an opportunity of personally examining the results of the different modes during the interim.

HELMINTHION.

PELARGONIUMS.

YOU ask me for a few remarks upon the flowers raised here, and figured in your present number, and also for a little gossip on seedlings. I am afraid I cannot say much that shall be of service to any young beginner at seedling raising, or that has not been already given in previous numbers of the *Florist*; and yet the succession of amateurs requires, perhaps, that information of this kind should occasionally reappear in your publication. Conqueror is a seedling from Neatness, Lydia from Prince Arthur, and Laura from Rosa. My flowers are very rarely crossed by hand, and none of the above are the results of that mode of obtaining seed. Indeed, I have found it so far from encouraging that I hardly ever resort to it. I believe the best plan is to select the very finest flowers in cultivation, and to place them together in groups according to their shades of colour, leaving them open to the free visits of the bees. In gathering the seed, it is carefully placed, each variety by itself, and sown and potted off, with the necessary *labels*. At the end of the blooming season, by comparison, it is found which flowers bring good varieties and which do not; and this is important to mark, for it will often be observed that the very best in every particular are useless as breeders, whilst some inferior in many points bring capital flowers. It is also very curious to observe how difficult it is to get certain colours; for years I have tried to obtain a flower of merit with Rosamond's colours, and had not succeeded until last season, when I was pleased to see the one now figured, and named Laura; I shall be much disappointed if this variety does not please when well grown upon a two-year-old bottom; and in my opinion no correct judgment can be formed of the merits of a flower unless seen on a plant of that age. Conqueror must, I think, please everybody, and Lydia, from its distinct colour, freedom of bloom, and habit will, I imagine, do the same. Silenus I also think a very desirable flower, but many have preferred to the above, some of the other varieties Dobson and Son have selected to send out. I may state frankly that my taste differs from many others, and many flowers which are greatly admired at the exhibitions are not prized by me; and since the public taste is against my judgment I ought, perhaps, to consider myself to have erected a wrong standard. I have already in your pages given an opinion that a flower which requires dressing has an unpardonable fault; but here, again, the public voice is against me, as was shown in a little discussion in your pages some time back. However, there are many points upon which all parties are agreed, and perhaps we may term them

essentials, and those are novelty, freedom of bloom, good habit—both of plant and flower-truss, and fidelity of colours. The critical amateur will add form, and so he should; yet even he will find his stage not perfect without some flowers defective in this respect—Hoyle's Magnet, for instance, which has no claim to form, and which is most effective under canvas. A variety of circumstances have withdrawn my attention almost entirely from my favourite pursuit; but, retaining all my old partialities, I have watched the opening of this year's seedlings with great interest, and I shall be greatly disappointed if, in a few seasons hence, there are not produced some decided novelties in colour. It is to be hoped attention will be kept to light flowers, a point in which most stages are too deficient. What a gem a pure white with good scarlet blotch would prove!

Worton Cottage, Isleworth.

E. BECK.

THE PINK.

AT the termination of another season, and while the blooms of 1854 are fresh on our memory, we will briefly record our impressions of what has been doing with the Pink since our last notice in the *Florist* for August, 1853; and this is the more necessary as there are so many *new varieties* coming under notice for the first time.

The early blooms this season had a tendency to be rough on the edge and but imperfectly laced. As the season advanced they bloomed much better. The display of this flower at the Royal Botanic Society's July exhibition was the best of the season, the flowers being generally as good as we remember to have seen them, being well laced, of good size, and without confused centres. Allowing for the influence the season has exercised on some varieties, our opinions given a twelvemonth since have proved tolerably correct. In speaking, then, of Mr. Bragg's flowers, we placed James Hogg as the *best*, and it undoubtedly is, although the lacing is occasionally too faint. The blooms of this variety exhibited at Basingstoke by Mr. Surman, gardener to J. C. Roberts, Esq., Twyford, near Winchester, showed as perfect a Pink as we remember to have seen. Dr. Maclean's flowers have exceeded our expectations, having all—with the exception of Great Criterion, the plants of which suffered so much during the long severe winter, that they never finally recovered—proved most satisfactorily. New Criterion is a most superb flower, and opens dark purple, which changes to rosy purple as it ages, and is in either state a charming flower, full and smooth on the edges. Brunette, a heavily laced dark variety, is also a bold noble flower, and has the largest petal and widest marking of any flower we know, and, heavily laced as it is, there is a large space of white in each of the large broad petals. Adonis, another of Dr. Maclean's seedlings, is a chaste smooth flower, very clear in its markings, petals smooth, and laced with soft rosy purple. Mrs. Norman, as shown by Mr. Baker, of Woolwich, has a very fine petal, and is altogether a first class flower. Hale's

Field Marshal and Hale's Mr. Weedon are two useful evenly-laced flowers. Turner's Richard Andrews is a large well-laced flower, and may be termed a broad petalled Whipper-in, as it resembles that variety, but has a wider and smoother petal. Duke of Devonshire is a flower with a smooth well-shaped petal, as full as Great Britain, and, like that variety, has rather too many petals, but its size can be reduced by leaving plenty of buds. Looker's John Stevens and Juliet are promising flowers, the former a dark purple, and the latter a light purple laced variety; also Mr. Hoyle and Mr. Hobbs, red laced flowers of good average quality, and good exhibition flowers. Norman's Napoleon is very dark laced, a striking flower with a large bold petal, but is rather thin. Colchester Cardinal has proved a fine flower, with first-rate properties, having a very smooth stout petal.

Of older varieties Maclean's Criterion stands at the head; it has been very fine this season, and fuller than it is often seen. Bragg's Jupiter has been very fine, and President and Purple Perfection have been shown good. Optima, Ada, Kate, Mrs. Wolf, Sarah, Lord Charles Wellesley, Arthur, Beauty of Salt Hill, Constance, Esther, Sappho, Lola Montes, Richard Smith, Titus, Lord Valentia, Perfection, and Hurlstone's Fanny, have all been exhibited in very good condition, and are generally very good flowers. We have seen a few yearlings that possess excellent properties, but refrain from enumerating them until another season has confirmed their being dissimilar, and desirable new varieties, as they appear at first to be. Some of the best flowers we have had were produced from plants wintered in small pots and planted out in spring, and, considering the small space they occupy during the winter, and there being no risk of losing them should the season be unfavourable, this plan should be more generally adopted.

POMOLOGICAL SOCIETY.

OUR readers will have observed, by an advertisement in our last number, that the Pomological Society is now fairly started. Since then offices have been taken at the house of the Botanical Society of London, No. 20, Bedford-street, Covent-garden, where the business of the society will in future be transacted. It is understood that a show of fruits will take place in September, to be followed by others at suitable times for forming an opinion on the merits of the fruit sent to the Society for exhibition.

That the Pomological Society is eventually to become one of the most really useful institutions of the day, no one, who has given any consideration to the imperfect knowledge of the best fruits now pervading country districts, can for a moment doubt; nor yet, when we look at the unsatisfactory tribunal under the sanction of whose awards new fruits, be they good or indifferent, are yearly being thrust upon the public. To name a case in point, we may advert to the new Strawberries of the year. Here we see, in the first place, Patter-

son's Nonpareil receiving from the judges of the Horticultural Society a Silver Knightian Medal, to mark, of course, its superior merits: this in June. We next see, in July, Kitley's Carolina Superb, and Underhill's Sir Harry, selected as entitled to their second distinctive mark, the Silver Banksian; the judges at the same time rejecting (for what reasons they do not inform us) Ward's Omer Pacha, which an equally competent authority a few days before had pronounced worthy a medal. Now if any value attaches to these awards, as stamping the merits of the respective fruits, they will stand as follows:—Scarlet Nonpareil, first class; Carolina Superb and Sir Harry, second class; Omer Pacha, not noticed. These awards, mind, are made by the judges of a society whose officers think they are doing everything necessary to promote the raising of new fruits, and are stamping them with a value proportionate to their merits; and yet the evidence of all the gardening world besides shows the above distinguishing marks to be contradictory, so far as the real merits of the respective fruits are concerned. After the above, who will be bold enough to say a Pomological Society is not wanted?

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. IX.

XVII. TAXODIUM SEMPERVIRENS—THE BASTARD CEDAR.

THE Bastard Cedar is a native of various parts of California, from which it was introduced to St. Petersburg, and from thence to England, in 1843; it is found abundantly on the mountain ranges of Santa Cruz, situate 50 or 60 miles from Monterey. The late Professor Endlicher considered it identical with the large trees noticed by Douglas in the Californian forests, which, however, is not the case; and the discovery lately of the immense Wellingtonia shows this latter likewise to be distinct, as a comparison of the branches and cones of it with those of our subject proves. The Taxodium, however, forms a rival in size to the Wellington Cedar, for Mr. Hartweg informs us that those discovered by him averaged 200 feet in height, with trunks from 18 to 24 feet in circumference, quite straight and clear of branches to the height of 60 or 70 feet; and one of this species is described as being 270 feet high, with a trunk 55 feet in circumference. That the Bastard Cedar attains both a great size and age, we may infer by there being a slab of the wood of this tree at St. Petersburg 15 feet in diameter, marked with annual rings denoting a growth of upwards of 1000 years.

Taxodium sempervirens, or *Sequoia gigantea*, as Endlicher calls it (evidently through mistake), is an evergreen tree, with numerous branches, small in comparison with the trunk, and arranged alternately. These take an horizontal and often pendulous direction, and are furnished with numerous small branchlets. The cones are borne on the ends of the branchlets solitary, no larger than a hazel nut, and with persistent scales. Leaves alternate, flat, narrow, half an inch or



TAXODIUM SEMPERVIRENS.

Height, 29 feet; girth of stem, at 2 feet from the ground, 2 feet 6 inches; diameter of branches, 21 feet.

more in length, and pointed. They are of a medium green colour on the upper surface, relieved by two whitish bands on the under side.

The tree from which our woodcut is taken is growing at Dropmore, having been planted out in 1845, at which time it was only 14 inches high. It now measures 29 feet in height, the stem at two feet from the ground being 2 feet 6 inches in circumference, and the diameter of the branches 21 feet. Mr. Frost considers the tree would have been five feet higher had it not on two or three occasions lost its leader by accident. Some of our own specimens are 16 feet high, though only planted in the spring of 1850, at which time they might be four feet high. This will show the rapid growth of the tree on suitable soils; it does not seem at all particular in this respect, excepting stiff clays, which should be avoided when selecting sites for planting.

The Bastard Cedar forms a very ornamental tree for the lawn or pleasure ground; but we think it will be more eligible for park or forest scenery. As the tree grows older, we may expect it to assume its more characteristic habits, when its suitability for the latter situation will become more apparent. When denuded of branches, the bark, which is of a bright cinnamon colour, will become rugged with age, and its deep fissures, and colour, will make it a favourite with admirers of trees, independently of the great size of the trunk and the wonderful altitude it attains.

The tree is hardy, for although partly injured in some places last winter, we see that many of our common trees and shrubs have suffered equally with it.

The Bastard Cedar is easily propagated by cuttings, and we see no reason to doubt that they will grow equally well and make as fine trees as seedling plants. It is now met with plentifully, and would, we imagine, make a capital hedge plant for situations where a rapid growth was required. We have tried it on a small scale, and it appears to answer the purpose.

LISTS OF PELARGONIUMS.

At a season when all should be seeking to improve their collections by making the necessary additions thereto, or by discarding the unnecessary therefrom, perhaps I may be permitted to solicit from the leading raisers, exhibitors, and cultivators, their co-operation and assistance in a matter which, from past experience, I am led to believe will be cheerfully accorded to me for the public good—viz., returns of the best 24 varieties, and the best 12 fancy varieties, according to their several opinions, based on the experience and observation of the past season—flowers that have been sent out; and, further, I would suggest that the value of such returns would be highly increased if plain detail particulars be appended thereto, such as “good early,” “free,” “requires warmth,” “somewhat late,” and similar explicit brief terms, which all may easily comprehend.

It is now several years since I solicited similar most valuable and

interesting information; and at that time the pages of the *Florist* were granted me for the purpose. Need I fear the channel will be denied me at the present time?

Thus do I avoid both preface and apology, and request to be favoured with the communications of those who may desire to respond not later than the middle of the present month (September), to Wace Cottage, Holloway; that the same may be prepared, and appear in the October number of the *Florist, Fruitist, and Garden Miscellany*, a work of which we may all well be proud.

JOHN EDWARDS.

NATIONAL CARNATION AND PICOTEE SOCIETY.

THE fourth annual exhibition of this Society took place at Derby, August 8th, at the Arboretum, in connection with the summer show of the Midland Horticultural Society, which latter is one of the most successful and best managed provincial societies in the country. The day was exceedingly fine, and a large number of visitors availed themselves of the opportunity of witnessing the varied and beautiful productions.

The show was originally fixed for the 3d, but, from the lateness of the season, it was found the flowers would not be in good bloom; it was therefore necessary to postpone it. We must not question the policy of this step, since the exhibition was so successful, there being 26 competitors in all, 15 being the largest number at any previous meeting. It was, however, much against the southern collections; there might *not* have been so many blooms staged on the 3d, but their quality would have been better, and they would have been larger.

We do not recommend the continuance of the plan of showing Carnations and Picotees, stands of each, in connexion, for the principal prizes. We know several good growers who only grow Picotees, and others who only grow Carnations, these are excluded from such competition; besides, there are other objections. Neither do we approve of duplicates being shown in so small a number as twelve blooms. It is not easy for the Judges to decide if the regulations have been complied with, nor is there sufficient time to do so. The exhibitor that may show twelve varieties, to gain a point over his opponent by having a better variety, would gain nothing at all, but probably lose, since it must be taken as granted that they are equal on this point, by having availed themselves of being allowed to show duplicates, and complied with the rules by only showing the smallest number of varieties allowed. If a grower has several blooms of one kind, equal perhaps to each other, there are the classes to exhibit them in.

Having stated what little we object to, we will now proceed with the more pleasant part of commending that which was praiseworthy.

The show itself, as well as the number of blooms, was far beyond what we expected, our own collection being so nearly gone. We were agreeably surprised to find so many fine flowers, and will

now proceed to notice a few of the new varieties. In Picotees there was a large addition of fine flowers. Mrs. Hoyle, the heavy red shown so fine at York last season, was again produced in excellent order, winning three out of the six prizes in this class. It was second, however, to Sultana, a large flower with a fine large smooth petal. Mrs. Dodwell, another heavy red, although rather thin, possesses first-rate qualities. Mrs. Headley, a medium red, neither heavy nor light, is a noble flower; large and full, without being confused in the centre, and very smooth. There was an abundance of good flowers in this class, recently so deficient. Heavy edged flowers of good quality, in each class, we were pleased to observe, are becoming more numerous. The first stand in Class A. had eight flowers heavily marked, yet with clear white, and without spots or stripes, thus giving a richness to the collection. Too many light edged flowers, however good, are not effective. In heavy Roses there were Lady Grenville and Mrs. Drake, two beautiful flowers, and Hoyle's Alice, a great improvement on Venus.

Of heavy purples there was nothing particularly striking. Mr. Dodwell had several very pretty and promising flowers. No. 15 we thought the best. In light reds, Mrs. Kelk took the lead, and is a very nice flower, of full size and great substance. In light purples Haidee took first prize, and must still be classed as one of the very best. Finis (May) is a fuller flower and very good, of the same class. Mrs. Keynes exhibits fine quality, being very smooth and evenly marked, but rather too thin. In light roses there was nothing new. Ariel was the only one that came near that old but favourite flower Mrs. Barnard, the latter taking the premium prize as the best Picotee exhibited. There was a very promising light rose edged Picotee, exhibited from Birmingham, raised by Mr. Robert Hollam. There did not appear to be any improvement in yellows, Conrad being still the best. Of Carnations there were some good additions; the premier prize for the best bloom was awarded to Holland's Mr. Ainsworth, a scarlet bizarre of first-rate quality, which we think will prove a better flower than Curzon. The plants we grew were received about Christmas, not a good time, yet the bloom in question was produced from them. First-rate as this flower is, the prize should have been given to King John, one of Mr. May's rose flakes, a decided beat on Garland, being two shades deeper in colour, and a little more cupped, and as large as the old favourite. The bloom of this shown in the winning stand was unquestionably the finest specimen exhibited, without a fault in its marking. Mr. Puxley's new flowers were very conspicuous; Silistria, Omer Pacha, and Captain Butler (all three scarlet bizarres) were remarkably fine flowers.

Morgan May, a pink bizarre, took the first prize in its class, and is a fine thing. Hope and William Catleugh are two promising crimson bizarres. Of scarlet flakes there were several; Exit, Defiance, Christopher Sly, Marshal St. Arnaud, and Victoria Regina, these are all new of this class, and were shown good; they stand in quality, in our opinion, as they are placed. In purple flakes we noticed but little new, Royal Purple was the best. Mr. Holland had several blooms of a well

marked seedling, but we did not like the white, which was dull. In rose flakes we have before observed, King John took the lead; Flora's Garland, Mr. Strutt, Poor Tom, and Aglaia, were very good.

Mr. Dodwell's flowers were as usual very clean, smooth, and well marked, but not quite so large as we have seen him exhibit on previous occasions. Mr. Steward, of York, had the best stand of Picotees in the amateur class; the blooms were very good indeed, and of a uniform size. Mr. Bailey also had some very fine specimens in his stands. The following are the awards.

CLASS A: Premier prize. Nurserymen. Twelve Carnations and twelve Picotees; dissimilar varieties: A Silver Cup, eight guineas. Mr. C. Turner, of Slough, with Carnations: King John (May), Ascendant (May), Exit (May), Mr. Strutt (Turner), Royal Purple (Puxley), Aglaia (May), Indispensable (Puxley), Prince of Oldenburgh (Puxley), Captain Butler (Puxley), Defiance (Puxley), Black Diamond, Admiral Curzon. Picotees: Sylvia (Turner), Mrs. Headley (Headley), Sultana (Turner), Countess of Erroll (Turner), Mrs. Hoyle (Hoyle), Mrs. Kelk (Turner), Prince Albert (Headley), Helen (May), Mrs. Drake (Turner), Princess (Turner), Lady Grenville (Turner), Lord Chancellor (Headley).

CLASS B: Premier prize. Private growers. Twelve Carnations and twelve Picotees, not less than nine varieties of each: A Silver Cup, eight guineas. Mr. Dodwell, of Derby, with Carnations: Admiral Curzon, Premier, Lorenzo, Sarah Payne, Friar Lawrence, Seedling, Mr. Ainsworth, Firebrand, Lord Milton, Lovely Ann. Picotees: Dodwell's 33, Dodwell's 29, Dodwell's 15, May's Helen, Dodwell's 48, Mrs. Norman, Alfred, Mrs. Barnard, Haidee, Venus.

CLASS C: Premier prize. Private growers. Open to cultivators of not more than 200 pairs. Six Carnations and six Picotees: a Silver Cup, four guineas. Mr. Taylor, of Nottingham, with Carnations: Captain Franklin, Lucia, Hale's Albert, Earl of Leicester, Admiral Curzon, Squire Trow. Picotees: Lord Nelson, Ophelia, Princess Royal, Mrs. Barnard, Mary, Ganymede.

CLASS D. Nurserymen. Twelve Carnations (the losing stands in Class A. were allowed to compete in this class, and class E.) 1st, Prize, Mr. Keynes, Salisbury, with Flora's Garland, Hale's Albert, Acca, Lord Rancliffe, Valentine, Black Diamond, Queen of Roses, Jacques, Sarah Payne, Aglaia, Admiral Curzon, Puxley's Queen: 2d, Mr. Turner, with Mr. Strutt (Turner), Silistria (Puxley), King John (May), Ascendant (May), Omer Pacha (Puxley), William Catleugh (Puxley), Victoria Regina (Headley) Jenny Lind (Puxley), Morgan May (Puxley), Poor Tom (May), Black Diamond, Christopher Sly (May); 3d, Mr. Oswald, Birmingham. with Lord Rancliffe, Uncle Tom, Beauty of Woodhouse, Magnificent, Companion, Duke of Cambridge, Ariel, Duke of Sutherland, Lovely Ann, Lydia, Admiral Curzon, King of Scarlets.

CLASS E. First stand of twelve Picotees: 1st, Mr. Turner, with Countess of Erroll (Turner), Sultana (Turner), Mrs. Drake (Turner), Princess (Turner), Mrs. Kelk (Turner), Mrs. Keynes, Countess (May), Helen, Mrs. Hoyle (Hoyle), Alice (Hoyle), Ariel (May), Mrs. Dodwell; 2d, Mr. Keynes, with Lilacea, Lavinia, Ophelia, James II.,

Gem, Mrs. Norman, Mrs. Barnard, l'Elegant, Haidee, Mary Crellon, Alfred, Minerva; 3d, Messrs. Schofield and Son, Knowsthorp, with Mrs. Barnard, Lord Nelson, Calliope, Prince of Wales, Bianca, Beatrice, Seedling, Eva, Rosalind, Haidee, Venus, Princess Helena, Mrs. Norman.

CLASS F. Private Growers (the losing stands in Class B were allowed to be exhibited in this class and Class G). Stands of 12 Carnations (nine dissimilar varieties). 1st, Mr. Bayley, of Derby, with Flora's Garland, Premier, Lorenzo, Sarah Payne, Admiral Curzon, Falconbridge, Squire Meynell, Cradley Pet, and Lovely Ann; 2d, Mr. Samuel Brown, Birmingham, with Flora's Garland, Admiral Curzon, Friar Lawrence, Companion, Premier, Poor Tom, Lord Milton, Seedling, and Lady Rhodes; 3d, H. Steward, Esq., of York, with William the Fourth, Ariel, Lord Lewisham, Lady Ely, Admiral Curzon, Squire Meynell, Pains, Lord Milton, Poor Tom, and Falconbridge; 4th, Mr. Dodwell, with Flora's Garland, Premier, Sir Joseph Paxton, Admiral Curzon, Friar Lawrence, Beauty of Woodhouse, Lorenzo, Firebrand, and Sarah Payne; 5th, Mr. Burman, of Hull, with Lord Rancliffe, Justice Shallow, Harriet, King of Scarlets, Ariel, Lord Lewisham, Companion, Mr. Ainsworth, Lovely Ann, and Palladin; 6th, Mr. Baildon, of Halifax, with Vivid, Aglaia, Lady Goderich, Beauty of Woodhouse, Lady of the Manor, Admiral Curzon, Lord Milton, Huntsman, Squire Trow, Firebrand, and Black Diamond. Stands of 12 Picotees (nine dissimilar varieties): 1st, H. Steward, Esq., with Alfred, Mrs. Barnard, Mrs. Norman, Lady Franklin, Princess Royal, Enchantress, Haidee, Gem, and Juliet; 2d, Mr. Bayley, with Dodwell's No. 33, May's Helen, Prince Arthur, Dodwell's 15, Haidee, Mrs. Barnard, Mrs. Norman, Venus, and Dodwell's 42; 3d, Mr. Dodwell, with Dodwell's 44, do. 15, do. 33, do. 17, do. 42, Rosalind, Alfred, Mrs. Norman, Bridesmaid, and Venus; 4th, Mr. Samuel Brown, with Miss Puxley, Countess, Seedling No. 1, Alfred, Green's Queen, Prince of Wales, Seedling No. 2, Seedling No. 3, Mary, Duchess of Cambridge, and Haidee; 5th, Mr. Taylor, with Lord Nelson, Mrs. Barnard, Elizabeth, Princess Royal, Gem, Grace Darling, Alfred, Mrs. Norman, Prince of Wales, and Duke of Devonshire; 6th, Mr. Burman, Miss Rosa, James II., Hudson's Ann, Ganymede, Christabel, Duke of Rutland, Paymaster, Haidee, Duke of Devonshire, and Sebastian. Stands of 6 Carnations (open to growers of not exceeding 200 pairs): 1st, J. J. Colman, Esq., Stoke Holy Cross, near Norwich, with Pains, Flora's Garland, Sir J. Paxton, King of Carnations, Squire Trow, and Aglaia; 2d, Mr. Hedderley, Smenton, Nottingham, with Admiral Curzon, Antonia, Lord Rancliffe, Firebrand, Lord Milton, and Rev. J. Bramhall; 3d, Mr. S. Eyre, Sneinton, with Earl Spencer, Admiral Curzon, Friar Lawrence, Lord Milton, Firebrand, and Lord Rancliffe; 4th, W. Belcher, Esq., Abingdon, with Pains, Lord Milton, Lady Ely, Twyford Perfection, and William; 5th, Mr. Wm. Hobbs; 6th, Mr. W. Parkinson, Derby, with Lord Milton, Firebrand, Admiral Curzon, Lord Rancliffe, Premier, and Lovely Ann; 7th, Mr. J. Fisher, with Friar Lawrence, Admiral Curzon, Cradley Pet, Firebrand, Premier, and Lord Milton; 8th, Mr. Gill, of Wakefield, with Admiral Curzon, Lord

Rancliffe, Lord Milton, Earl of Wilton, Beauty of Woodhouse, and Firebrand. Stands of 6 Picotees (open to growers of not exceeding 200 pairs): 1st, Mr. J. Fisher, Derby, with Dodwell's No. 33, Mrs. Barnard, Dodwell's 17, Mrs. Norman, Dodwell's 15, and Venus; 2d, Mr. S. Eyre, with Rosalind, Mrs. Norman, Lord Nelson, Mrs. Barnard, Gem, and Alfred; 3d, Mr. Hedderley, with Lord Nelson, Mrs. Barnard, Ophelia, Ganymede, Mrs. Norman, and Prince Arthur; 4th, J. J. Colman, Esq., with Countess, Miss Puxley, Constance, Esther, Lady H. Moore, and Venus; 5th, Mr. Parkinson, with Juliet, Mrs. Norman, Mrs. Barnard, Mary Ann, Grace Darling, and Lady H. Moore; 6th, Mr. W. W. Sibley, Nottingham, with Mrs. Barnard, Lady H. Moore, Ophelia, Esther, Gem, and Duke of Devonshire; 7th, Mr. Lowe, Derby, with Seedling, Alfred, Mary Elizabeth, Mrs. Barnard, and Seedling Ophelia.

In the classes where more than one bloom of a variety was allowed, the duplicates are not given.

CLASSES: CARNATIONS.—Scarlet Bizarres: 1st, Mr. Turner, Holland's Mr. Ainsworth; 2d, Mr. Hedderley, Lord Rancliffe; 3d, Mr. Turner, Silistria; 4th, Mr. Turner, ditto; 5th, Mr. Hedderley, Admiral Curzon; 6th, Mr. Bayley, ditto. Crimson Bizarres: 1st, Mr. Keynes, Black Diamond; 2d, Mr. Hedderley, Lord Milton; 3d, Mr. Keynes, Black Diamond; 4th, Mr. Turner, ditto; 5th, Mr. Keynes, ditto; 6th, Mr. Smith, Lord Milton. Pink and Purple Bizarres: 1st, Mr. Turner, Morgan May; 2d, Mr. Steward, Sarah Payne; 3d, ditto, ditto; 4th, Schofield and Son, Telemachus; 5th, Mr. Dodwell, Seedling No. 5; 6th, Mr. Keynes, Henry Kirke White. Scarlet Flakes: 1st, Mr. C. Turner, Exit (May); 2d, Mr. Sibley, Lorenzo; 3d, Mr. Keynes, Tybalt; 4th, Mr. Dodwell, Cradley Pet; 5th, Mr. Taylor, Earl of Leicester; 6th, Mr. Keynes, Firebrand. Rose Flakes: 1st, Mr. Turner, King John (May); 2d, Mr. Keynes, Flora's Garland; 3d, Mr. Turner, King John; 4th, Mr. Turner, King John; 5th, Mr. Oswald, Constellation; 6th, Mr. Steward, Maid of Athens. Purple Flakes: 1st, Mr. Hedderley, Premier; 2d, Mr. Holland, Admiral Napier; 3d, Mr. T. Eyre, Pains; 4th, Mr. Hedderley, Rev. J. Bramhall; 5th, Mr. Steward, Enchanter; 6th, Mr. Hedderley, Squire Meynell.

PICOTEES.—Heavy Edged Red: 1st, Mr. Turner, Sultana; 2d, Mr. Turner, Mrs. Hoyle (Hoyle); 3d, Mr. Parkinson, Mrs. Norman; 4th, Mr. Turner, Mrs. Lochner; 5th, Mr. Turner, Mrs. Hoyle. Light Edged Red: 1st, Mr. Turner, Mrs. Kelk; 2d, Mr. Turner, Mrs. Kelk; 3d, Mr. Turner, Mrs. Kelk; 4th, Mr. Dodwell, Prince of Wales; 5th, Mr. Parkinson, Mary Ann; 6th, Mr. Keynes, Gem. Heavy Purple: 1st, Mr. Steward, Alfred; 2d, Mr. Steward, Alfred; 3d, Mr. Dodwell, No. 44; 4th, Mr. Merryweather, Duke of Devonshire; 5th, Mr. Dodwell, Alfred; 6th, Mr. Dodwell, No. 44. Light Purple: 1st, Mr. Bayley, Haidee; 2d, Mr. Steward, Enchantress; 3d, Mr. Keynes, Mrs. Keynes; 4th, Mr. Dodwell, No. 33; 5th, Mr. Burman, Haidee; 6th, Mr. Dodwell, No. 33. Heavy Rose: 1st, Mr. Turner, Mrs. Drake; 2d, Mr. Turner, Lady Grenville; 3d, Mr. Keynes, Mrs. Barnard; 4th, Mr. Turner, Helen (May); 5th, Mr. Turner, Alice

(Hoyle); 6th, Mr. T. Eyre, Unexpected. Light Edged Rose: 1st, Mr. Oswald, Mrs. Barnard; 2d, Mr. Taylor, Mrs. Barnard, 3d, Messrs. Schofield, Mrs. Barnard; 4th and 5th, Mr. Dodwell, No. 39; 6th, Mr. Taylor, Mrs. Barnard. Yellow Picotees: 1st, Mr. W. Smith, Conrad; 2d, Mr. Turner, Conrad; 3d, Mr. Turner, Aurora; 4th, Mr. Turner, Seedling (Hoyle); 5th Mr. Holland, l'Amiable.

Premier Carnation, selected from the entire exhibition, Mr. C. Turner, with Holland's Mr. Ainsworth. Premier Picotee, selected from the whole exhibition, Mr. Steward, with Mrs. Barnard.

The display of Hollyhocks, also open to all England, was very fine, much better than could have been expected at so early a period. It is somewhat remarkable that the Carnations and Picotees should be so exceedingly late, and the Hollyhocks more early than usual. The two causes certainly combined to make the exhibition a very excellent one. The principal competitors with Hollyhocks, were Messrs. Bircham, of Hedenham, Norfolk; C. Turner, of Slough; W. Chater, of Saffron Walden; A. Paul and Son, of Cheshunt; and J. J. Colman, Esq., of Stoke Holy Cross, Norwich. For seven spikes, Mr. Bircham was 1st, with Eugenia, Walden Gem, Charles Baron, Omer Pacha, Pourpre de Tyre, Princess Alice, and Unique; 2d, Mr. W. Chater. There were more competitors in the cut blooms, the competition being so close that Mr. C. Turner and Mr. Bircham were adjudged to be equal, and were awarded equal first prizes accordingly.

In Mr. Bircham's spikes, we noticed his Omer Pacha, a new variety, as being particularly fine, pale straw colour with chocolate at the base; also Princess Alice, cream coloured, a very good flower. Of other kinds we noticed good, Pourpre de Tyre, Eva, Hedenham Rival, Unique, Eugenia, Yellow Model, General Bem, Napoleon, Charles Turner, Felicia, Hope, Orestes, Rose of England, Sir David Wedderburn improved, and Duchess of Sutherland.

It was decided that the meeting of the National Carnation and Picotee Society for 1855 should be held at Oxford, in connexion with the summer show of the Royal Oxfordshire Horticultural Society; and from the liberal manner in which the above Society is managed, as well as from the number of enthusiastic florists in and near Oxford, we fully expect that the meeting of 1855 will equal, if not surpass, any of its predecessors.

The most interesting ceremony after dinner was the presentation of a testimonial to the able and indefatigable honorary secretaries—Mr. E. S. Dodwell and Mr. Bayley, viz., a purse containing sixty-five sovereigns to Mr. Dodwell. The purse was accompanied by a scroll, beautifully executed, containing the following inscription:—"To mark their sense of the disinterested efforts to advance the progress of Floriculture, their esteem for his private character, and their appreciation of his zealous and untiring labour, on behalf of the Midland Horticultural Society, this scroll and a purse of sixty-five sovereigns, the produce of a voluntary subscription, were presented to Mr. Ephraim Syms Dodwell, by the Committee, many subscribers, and an influential portion of British florists, at the Annual Meeting of the National Carnation and Picotee Society, held at Derby, August, 8th, 1854." Mr. Bayley's was a similar scroll, and a purse containing thirty-seven sovereigns.

TOTTENHAM PARK, WILTS,

THE RESIDENCE OF THE MARQUIS OF AYLESBURY.

TOTTENHAM PARK, including the adjoining forests of Savernake and Marlborough, comprises a vast demesne (exclusive of the numerous manors which belong to the same noble proprietor), unequalled for extent or variety of sylvan beauty, and is indeed the only forest belonging to a private individual in the kingdom. "The Forest" consists mainly of a succession of gentle eminences divided by narrow valleys, which in places spread out to wider stretching plains, thus presenting to the best advantage the grand masses of forest trees, which everywhere abound. The principal indigenous trees are the Oak, Beech, Ash, Birch, and Thorn; many of these are very old and of large size, and are often accompanied by breaks of underwood, and fringed by large breadths of common Fern. In fact, lovers of the picturesque may find an ample field for study and admiration in traversing the miles which constitute "the Forest," and which in many places present all the characteristics of woods in the state of primitive wildness. Thanks to the noble owner of Tottenham, for having allowed the glorious old Oaks of Savernake to remain unmolested by the renovating hand of man, and with a liberality which cannot be too highly appreciated, permits pedestrians the rare treat of a walk through forest scenery, such as can no where else be found in England. The London and Bath turnpike road passes through the north part of the Forest, between Hungerford and Marlborough, and the mansion is situate about four miles to the left of this, within the precincts of Tottenham Park proper. The approach road to the mansion is carried through an avenue of Beech, nearly the entire length, and which, as we intend making some comments on it, in reference to avenues generally, in a future number, we shall at once pass to the gardens and get to our esteemed friend Mr. Burn, who for nearly forty years has had them under his charge, and who, we need scarcely say, is still one of the most successful and indefatigable cultivators of the present day.

The kitchen garden is extensive and as such adapted for the supply of a large family, and notwithstanding the subsoil is unfavourable, produces excellent crops of vegetables. The wall trees, like others, have suffered this year, but still we noticed a very fair crop of Apricots, Peaches, &c. Everybody has heard of the famous Tottenham Park Muscat (a large variety originated here some years back); this is still grown largely, and the Vineries were bearing fine crops of this and Hamburgs. Vines in pots are a feature here, and are most successfully managed, producing immense crops. To show how long the Vine (even when forced) may be kept productive, there is one Vinery, which was planted previous to Mr. Burn's taking charge of the place, and at that time the Vines were not in the best of condition, but by skilful management they have every season since produced heavy crops of fine fruit; and we think Mr. Burn may fairly challenge this house against any in the kingdom, for the weight of fruit it has carried within the last thirty-five years. The whole of the Vines are managed on the long

rod system, *i. e.*, a young shoot carried up from the bottom of each Vine yearly, for producing the crop the next season ; the Vine is cut away after the fruit is gathered, and the young cane has then room to ripen its wood for the coming season ; most abundant and regular crops are obtained by this practice, which is now rarely followed. Pines, Melons, Strawberries, and all the requisites for a large family, are likewise largely grown. Abutting on the north-east side of the kitchen garden is the old American ground, where the first attempt to grow American plants was made ; these grounds now contain fine specimens of all the leading kinds of Magnolias, many of which have attained the size of large trees, and are yearly covered with bloom ; besides which are all the older kinds of Rhododendrons, Azaleas, Vacciniums, Andromedas, and various other plants which were rarities at the time this garden was made, and many of which have now assumed the form of trees. Following the outside of the garden we next reach the Magnolia wall, of very considerable length, and entirely covered with the Exmouth variety of Magnolia. This wall has a south-east aspect, and although the plants suffered during the past winter, they were (in June) pushing vigorously and give promise for a fine show of blooms. Nothing of the kind can be finer than this long length of wall in September, when the Magnolias are covered with hundreds of their fragrant blossoms.

A high bank of the commoner kinds of Rhododendrons runs parallel to this wall, many of the plants being twenty-five feet high, and forming an impenetrable thicket, and completely hiding the garden wall from the adjoining grounds.

The kitchen garden and grounds just described are to the east of the mansion, which is a modern structure of considerable architectural merit, and has been erected on the site of the old mansion, which was taken down to make room for the present one. The centre and west wing of the new house are only yet completed. The wing consists of a conservatory and Orangery, forming a curve, and extending considerably to the westward. The new flower garden occupies the space immediately in front of this wing, and the west front of the mansion. The space thus partly enclosed was too large for a display solely of bedding out plants ; and Mr. Burn has taken advantage of this to introduce masses of his newer Rhododendrons, Azaleas, and Kalmias, which form an admirable background for the ordinary flower garden plants, and which produce a charming effect in early summer before the latter get into bloom. In addition various ornamental trees and shrubs have been planted in appropriate positions, and which now form handsome specimens. We noticed among others *Abies clanbrasiliana*, 20 feet in circumference and 4 feet high ; *Araucaria imbricata*, 23 feet high, a fine proportioned tree ; several fine Swedish Junipers ; an upright silvery leaved species, very ornamental ; *Kalmia latifolia*, 40 feet in circumference and 7 feet high. Some single specimens of hybrid Azaleas of great size ; nothing can exceed the glowing tints of these when covered with bloom ; they are principally hybrids from *calendulacea* and *coccinea*. We measured one and found it to be 50 feet in circumference and 8 feet high ; several others were nearly as

large, and quite symmetrical in shape. In another part of the grounds a common Pontic Azalea measured 90 feet in circumference and 14 feet high. We may here add, the soil at Tottenham is a soft yellow loam, belonging to the lower beds of the London clay; and as very excellent peat is found close by, every facility for growing American plants is on the spot. Mr. Burn was one of the first who turned his attention to hybridising the Rhododendron. This was on the first introduction of *R. arboreum*, which with *R. a. album* have been employed to cross with the hardy late flowering varieties, until every shade of colour is now produced, from the richest crimson to a pure white, relieved by darker spots in the throat. This, as every one knows, could not be effected at once, but has been a work of time and perseverance. The first crosses from the Nepal Rhododendron were only half hardy, and these have been made to cross again with hardy varieties until the magnificent hybrid Rhododendrons, which have made Tottenham and Mr. Burn so famous, have been produced. Lee's Late Purple and Maximum album, with another variety of a very dark purple, appear to Mr. Burn favourable for crossing the hybrids from arboreum, so as to obtain a crimson flowering Rhododendron to bloom in the end of June and July, which many of them do. A vast number of interesting seedlings have yet to bloom, and we have no doubt that many of them will be novelties either in shape, colour, or marking, as many of these hybrids were produced several years ago, and are now immense bushes. A bank of hybrid varieties is planted, extending from the Orangery westward for a long distance. Many of the plants in this bank are 25 feet high, and a more gorgeous display can nowhere be seen than this bank generally presents the end of May and early in June; they are a sight worth going 100 miles to see. Unfortunately the frosts of the 24th of April last destroyed all the exposed buds, and nothing escaped but a few which were protected by the foliage. The same may be said of the Azaleas, which presented a sad blank compared with the glowing splendour in which we have seen them. We have more notes in hand, but time will not allow us to say more than that we wish all lovers of fine scenery and magnificent American plants would go to Tottenham and judge for themselves during the season of bloom, and we hardly know which they will admire the most—the courtesy and kindness of our worthy friend Mr. Burn, or the many wonders he has to show them.

DESCRIPTIVE LIST OF FRUITS.

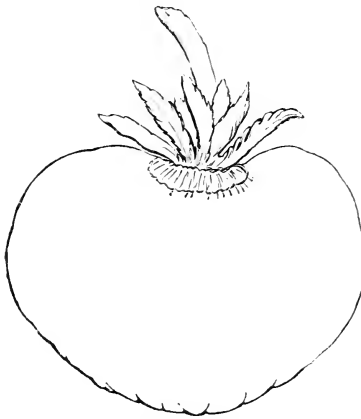
(Continued from p. 237.)

NEW STRAWBERRIES.

1. *Omer Pacha*.

This variety is a seedling raised by Mr. Ward, the gardener at Prospect Hill House, near Reading, Berks, from British Queen fertilised by the old Carolina Pine, two good kinds, of which the present variety seems to be a combination. The samples I received from Mr. Ward (from which the woodcut on next page was taken) were very nice-looking fruit, and of good quality.

The fruit is a little above the middle size, mostly of a roundish figure, but liable to be wedge-shaped or of a thick cockscomb form. It is of a



OMER PACHA.

bright red colour when exposed to the sun, thickly spread with small yellow seeds, which are slightly imbedded. Flesh white, solid, fine grained, saccharine; and moderately juicy, with a flavour resembling the Old Pine; appears to bear carriage well. Calyx reflexed, showing a short neck destitute of pips near the stalk.

Mr. Ward informs me that "the plants are of strong robust habit, and very prolific, producing fine fruit for a length of time, the first fruit ripening about the same time as Keens' Seedling."

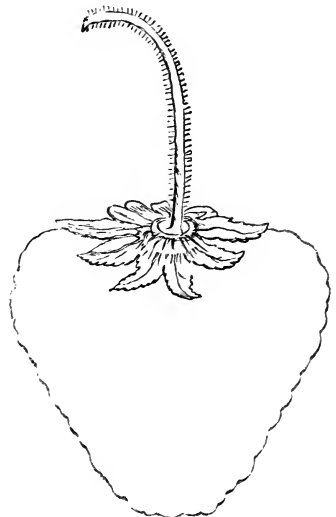
2. *Sir Harry.*

A fine variety, raised by Mr. Underhill, of Edgbaston, Birmingham, and originated from seed of British Queen, impregnated with Hooper's and Keens' Seedling. The berries are exceedingly large and very dissimilar in appearance to other kinds, mostly of a thick cockscomb form, and sometimes wedge-shaped, with larger calyx, and long stout fruit stalks. Its colour is deep purplish red or mulberry, glossy, and ripens well throughout. The flesh is red, solid, and fine grained, juicy, and saccharine, with a delicious perfumed flavour.

The above description was taken through the kind permission of Mr. Underhill, from the fruit exhibited at Chiswick in July last, for which he deservedly received a first class certificate. I have since been informed by him that "the plants are of good habit, and very productive, and keep in bearing a long time," and he adds, "I gather now (the 9th of August), and the first fruit ripened the latter end of June."

3. *Prince Alfred.*

This fine Strawberry was raised at the Royal Gardens by Mr. Ingram in 1852, and proves a very useful variety, both for preserving and table use, and when better known will doubtless



PRINCE ALFRED.

be much sought for among market growers, possessing as it does all the requisites for a profitable kind, and unlike most others it produces no *small* berries, and will furnish a supply of fine fruit nearly throughout the Strawberry season, the last fruit *swelling* to a good size, and, owing to its small foliage and dwarf habit, will admit of being grown much closer together than many other sorts. It is also a very hardy kind, and bears heavy crops.

Fruit large, mostly of a heart-shaped figure, handsome, and well formed. Colour dark glossy red, seeds thinly spread, and nearly imbedded in the fruit. Stalk slender, with small pointed calyx resting on the fruit. Flesh red, fine grained, and firm, extremely juicy, with a good flavour; although perhaps not so rich as some, it nevertheless is a very agreeable refreshing fruit.

4. *Prince of Wales.*

Also one of Mr. Ingram's seedlings, raised from British Queen impregnated with Keens' Seedling, partaking of both its parents. It is a Strawberry adapted to all purposes, being an excellent early forcer, a good dessert berry, and one of the best for preserving, making a very rich bright jam or jelly, similar in colour to the red Currant. It also produces excellent fruit in the autumn from the early forced plants.

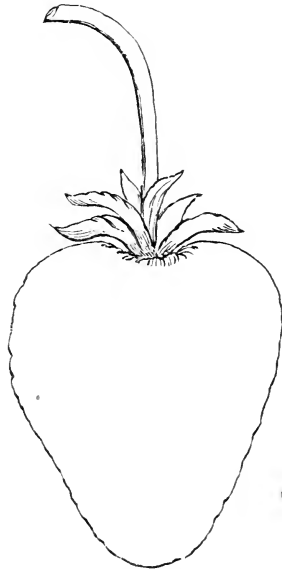
Fruit of good size, and varies in shape from globular to oval, and sometimes angular; seeds thinly set and imbedded. Colour bright deep red, and glossy. Calyx moderately large, with a strong fruit-stalk. Flesh lively red, solid, delicate, and juicy, with a rich vinous perfumed flavour, combined with a slight acidity, which renders it very agreeable. The fruit will bear carriage well, and commence ripening ten days before the British Queen, and will continue a month in bearing. The habit of the plants is dwarf and compact, very hardy, and prolific.

5. *La Deliance.*

This is a pale fruited worthless kind, and does not possess one good property to recommend it.

5. *Filbert.*

Although the British Queen, when in perfection, surpasses all other kinds, it is not without faults. Firstly, the plants are tender and very impatient of wet through the autumn and winter season; secondly, the fruit is liable to come green pointed, especially in cold summers, like the present; and, lastly, few soils are suitable for its cultivation. A Strawberry of fine texture, more hardy, ripening better, and of equal size and quality, is much wanted, and from what I have seen of the Filbert it possesses these desirable properties.



FILBERT.

The fruit is of large size, and remarkable for its uniform shape and regular outline; the colour is dark red when fully exposed, and much paler when shaded by the foliage. Calyx small and reflexed, showing a short neck underneath. Seed regular, and slightly imbedded. Flesh pinkish white, fine grained, and very solid, juicy, saccharine, and rich, with an excellent Pine flavour. The plants are hardy, of fine habit, and extremely prolific. It commences to ripen with the British Queen, and produces a succession of fruit throughout the Strawberry season.

The origin of this fine Strawberry is unknown. It was sent to us two years ago from Filbert House, near Maidenhead, as a new Strawberry, unnamed, and it was therefore called the Filbert; it is also known in the above locality under the same title. It was exhibited at Chiswick in July last under the name of Shardiloes Pine as well as that of Filbert.

7. *Ajax*.

Fruit large, mostly of a globular form, and regular in outline, of a dark glossy red colour. Seeds thinly spread, and deeply imbedded in the fruit. Flesh soft, sweet, and juicy, not unlike Keens' Seedling in the flavour, colour, and texture of the fruit, and ripens at the first season, or about the same time as that variety. The plants are distinct from most other kinds, being of very strong robust habit, and has large broad dark green foliage. It requires plenty of room between the plants, other wise the berries will suffer from the shade of its immense leaves. This variety was raised by Mr. Nicholson, of Egglecliffe, Yorkshire.

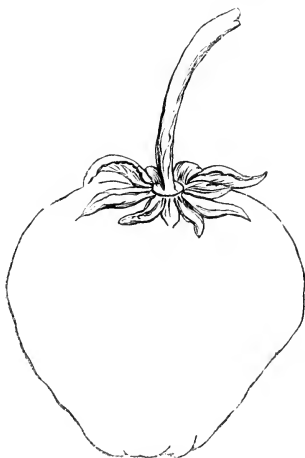
8. *Ruby*.

The Ruby is from the same gentleman as the preceding, and I consider it the best of Mr. Nicholson's new Strawberries. It closely resembles Ingram's Prince of Wales in the habit of the plant, as well as the size and colour of the fruit, but the quality is not so good as that variety.

The fruit is over the medium size, oval or conical in shape, and very handsome. Colour bright red, and finely polished. Seeds but slightly imbedded, on a smooth surface. Flesh light red, a little spongy, and hollow in the centre. The flavour is not rich, but vinous and sweet; ripens about the middle season, and keeps in bearing for a long time.

9. *Scarlet Nonpareil*.

This excellent Strawberry was raised by Mr. Patterson, gardener to Baroness Wenman, of Thame Park, Oxon. It is the result of a cross between Keens' Seedling and British Queen, partaking of the character of both parents, possessing all the hardiness of the former, with similar foliage and high flavour of the latter. The berries are of the



SCARLET NONPAREIL.

first size, handsome, and pretty regularly formed, of a bright glossy red, colouring and ripening perfectly to the point, pips large, seeds dark red, and imbedded. Flesh pinkish white, delicate, and fine grained, and saccharine and rich, with a highly perfumed flavour, ripening a few days earlier than the British Queen. It is said to force well.

• The fruit, from which the accompanying woodcut was taken, I received from Mr. Patterson on the 8th of August; it was stated to be from plants that were forced in the spring, and the berries below the usual size, which doubtless would be the case under such circumstances. Still the fruit sent was of good quality and fine appearance.

10. *Captain Cook.*

This is also one of Mr. Nicholson's seedlings, and appears to be closely allied to the old Swainston. The fruit is of the middle size, roundish figure, pale red colour, with a darker tinge on the exposed side of the berry. Seeds yellow, and set without depression. Flesh pinkish white, spongy, and deficient of juice, but when well ripened it has a peculiar musky flavour not unlike that of the Hautbois, and ripens at the first season. The plants are hardy and enormously productive, which will doubtless make it a profitable Strawberry for a market gardener.

The two following new kinds I have not tasted, therefore I cannot give an opinion in regard to flavour. One is from Mr. Smith, of Twickenham, named Sir C. Napier; it is a large and beautiful-looking fruit, of fine colour, and good shape, and appears a good sort for pot culture, judging from the fine specimens exhibited at the metropolitan shows in the early part of the season.

Mr. Myatt, the noted Strawberry grower, of Deptford, is the raiser of Admiral Dundas, and *if* the same seedling exhibited by him at the July show at Chiswick, it is a large showy fruit, resembling *Cinquefolia* in shape and colour; and by what I hear it is of better quality than some of Mr. Myatt's monster Strawberries; if not, it will be of little use except for making a fine display at the dessert.

Frogmore.

J. POWELL.

HINTS ON GRAPE GROWING.—No. III.

BY A GARDENER IN THE COUNTRY.

HAVING in my former paper pointed out some particulars respecting *light* and *ventilation*, and the necessity of both conjointly for growing good Grapes, I shall now endeavour to give some hints on what is to be done in reference to erecting a suitable house for growing them.

Supposing an amateur has a wish for trying his hand at building, with the assistance of a common carpenter he may do cheaply and well all that is required up to glazing and painting; nor are they in any way difficult to do, so that the construction of a Grape house is no great affair after all. To begin; a wall with a south aspect (or varying only

a few points from south), will be wanted, for although this may be done without (as I will show hereafter), yet in localities where building materials are cheap it will be safest, and in the end cheapest, to have the back wall of durable materials. In many places, however, the end of the dwelling-house or side wall of an outhouse may be selected; all that is wanted is a wall ten to fourteen feet in height, against which to place the rafters carrying the roof. Now the precise length of the house is hardly a case for me to decide,—it may depend on the length of your wall, or pocket, or on the partiality of yourself and friends for a good dessert: no matter, when once started, the rest will only be a multiple of the first pair of rafters, and accordingly may be carried out to the extent of your means or inclination.

The width of the house must bear some proportion to the height; it will not be desirable, however, to have it much wider than nine or ten feet, inside measure, as the expense of construction would be increased thereby. Let us say, for a guide, that it is set out for ten feet. Now as we must allow for an upright front two feet in height, the plate, or plugs (in the back wall) to receive the rafters, should be eleven feet from the floor or ground line; then, taking the square, the angle would be rather less than 45 degrees, and the length of rafter a trifle over thirteen feet. This will serve to show the main proportions, for a trifling deviation from these will not materially affect our plan; but if carried much beyond, the house would be inconveniently steep, or if much flatter stronger rafters would be requisite, or a support, both of which I want to avoid. As I entirely dispense with a brick front wall, it will be necessary to lay an Oak, or a Deal, plank, six inches wide by four inches deep, on the ground level; and as the Vines are to be planted inside the house, and the border made under this, it will have to be supported by rough posts (Oak or other hard wood) every five feet or thereabouts, and as a considerable part of the weight of the house will rest on these, they will require a *spur* on the outside, to counteract the pressure of the roof in that direction. In some localities cast iron or stone posts may be procured cheaper. The sill will have to be firmly secured on these, and furnished with uprights under each rafter 20 inches high, to support the front plate; this must be six inches wide by five inches deep, worked off on the upper side to the angle of the roof, and in which the rafters will be morticed, and secured in the plate in the back wall at their upper end. The space between the sill and front plate will be appropriated to the admission of air, for which purpose I prefer wooden shutters made to slide past each other: these may be connected with a small iron bar fixed to a pulley, that the whole may be opened or closed at pleasure. The rafters need not be more than three inches wide by five inches deep.

The bottom set of sashes, which are to be fixtures except when removed entirely for repairs, &c., should be about two-thirds the length of the rafter; this will leave the upper sashes from four to five feet long, and each alternate one of these should be furnished with rollers, a spring and catch, or pulley and weight, so as to slide and remain at any point, for ventilation. In addition, ventilating holes should be made in the back wall, where practicable, twenty-four inches long by twelve high, furnished with

sliding shutters, to open and close at pleasure. But in the case of the house being against a wall, where such cannot be made, a false light or weather boarding, twelve or fifteen inches long, should be inserted three inches above the sliding sash, that, in unfavourable weather, by not entirely drawing the sash up close, a current of air may pass out, without running the risk of admitting rain or chilling drafts. Now, supposing a bright sunny day in February or March, with a frosty air, when, in fact, the interior temperature demands a free ventilation, the Vines may be aerated down to a nicety without danger, and by graduating the front and back ventilators a gentle current may be allowed during dull weather, and by night, increasing it, of course, as circumstances dictate during the day. I have not said anything about glass. After trying almost every description I prefer the best qualities of "horticultural sheet." The squares should not be less than nine inches in width, nor more than twenty-four inches long.

But I think I hear some of your readers say "Why thus particular? We knew all about this before." Some no doubt do, and to my own knowledge a great many do not. My object is to enable a carpenter and his employer to work the thing out; the latter will know better the principles involved by the above simple account of details, and the carpenter will see what is wanted. I have only one more word of advice to offer,—let everything be plain and simple; ornaments, fancy mouldings, and the like are well enough, but sooner lay out a larger sum in procuring suitable materials wherein to grow the Vines than bestow it on useless ornaments. Inferior Grapes are a poor apology for elegant houses; while neither yourself nor friends will deem it prudent to criticise your plain and simple structure, if the Vines are producing large finely coloured bunches to reward your attention to *their* wants.

(To be continued.)

HOLLYHOCK EXHIBITION.

A VERY extensive exhibition of this beautiful flower took place at the Surrey Zoological Gardens on the 22d ult., when the principal growers of this noble plant competed for the very liberal prizes offered on the occasion; the productions filled one large tent, the spikes occupying one side, and the cut blooms the other.

The flowers generally were in first-rate condition. We were also pleased to see several new exhibitors contending for the honours of the day. A new plan was introduced for awarding the prizes, namely, the whole of the exhibitors in the nurserymen's class judged the amateurs' productions, and *vice versa*. It answered exceedingly well; the decisions gave universal satisfaction. The seedlings were judged rather too hurriedly. There is seldom time to do justice to new productions at these great meetings, hence the reason the National has been so well supported; there being nothing besides to interfere, the merits of the seedlings are

thoroughly discussed. The awards were as follows :—Spikes, eleven dissimilar varieties ; 1st prize, Mr. Bircham, Bungay, Hedenham, Norfolk, with Solfaterre, Yellow Model, Felicia, Pourpre de Tyre, Unique, Comet, Criterion, Lilac Model, Queen of Denmark, Brennus ; these were large, clean, even, and of first-rate quality ; 2d, Mr. W. Chater, Saffron Walden, with Spectabilis, Admirable, Lady Braybrooke, Sulphur Queen, Walden Gem, Meteor, Joan of Arc, Pourpre de Tyre, Hon. Mrs. Ashley, Comet ; 3d, Mr. C. Turner, of Slough, with Orestes, Duchess of Sutherland, Pourpre de Tyre, Yellow Model, Souvenir, Eugenia, Eva, Emperor, Walden Gem, Mrs. Foster, Charles Turner ; 4th, Messrs. A. Paul and Son, Cheshunt, with Pourpre de Tyre, White Globe, Lizzy, Magnum Bonum, Charles Baron, Beauty of Cheshunt, Sulphur Queen, King of Roses, Metropolitan, Eugenia, Aspacea. Cut blooms in twenty-four distinct varieties ; 1st, Mr. C. Turner, with Agricola, Lizzy, Walden Gem, Susannah, Charles Turner, Emperor, Purpurea, General Bem, Pourpre de Tyre, Orestes, Sulphur Queen, Sir David Wedderburn, Felicia, Hope, Souvenir, Pillar of Beauty, Hon. Mrs. Ashley, Shaded Model, Beauty of Cheshunt, Eleanor, Black Prince (new), Eugenia, Duchess of Sutherland, Ovid ; 2d, Mr. W. Chater, with Enchantress, Safranot, Black Prince (new), Rosy Circle, Brennus, Mulberry Superb, Golden Fleece, Lady Neville, Seedling, Charles Lidgard, Souvenir, Comet, Eugenia, Seedling No. 2, Hon. Mrs. Ashley, Elegans, Sir D. Wedderburn, Lilac Model, Seedling Yellow No. 1, Walden Rival, Gen. Bem, Emily, Pourpre de Tyre, Sulphur Queen ; 3d, Mr. Bircham.

Private growers. Spikes in seven varieties : 1st, Mr. Roake, Clewer, near Windsor, with Julia, Pourpre de Tyre, Sulphur Queen, White Globe, Walden Rival, Beauty of Cheshunt, Hon. Mrs. Ashley ; these were very fine, with large flowers ; 2d, George Holmes, Esq., Brooke Lodge, near Norwich, with Elegans, Penelope, Pourpre de Tyre, Lemonade, Warrior, Meteor, Challenger ; 3d, Mr. Benningfield, Broxbourn, Essex ; 4th, Mr. Glascock, Bishop Stortford ; 5th, Mr. Dyson, Stoke.

Twenty-four cut blooms in twelve varieties : 1st, Mr. Roake, with Seedling No. 1, 1854, Ovid, Joan of Arc, Walden Rival, Pillar of Beauty, Hon. Mrs. Ashley, Charles Lidgard, Julia, Pourpre de Tyre, Souvenir, Shaded Model, Sulphur Queen ; 2d, Mr. Long, Watford, with Pourpre de Tyre, Yellow Model, Hector, Emily, Sir D. Wedderburn, Joan of Arc, Comet, Orestes, Susannah, Gen. Bem, Shaded Model, Eva ; 3d, Mr. Benningfield ; 4th, Mr. Grant, Gardener to R. Fellowes, Esq., Shotesham Park, near Norwich ; 5th, to Mr. Dyson. The prize for the finest spike was selected from Mr. Bircham's collection, and was a beautifully grown Mrs. Ashley ; it was, however, very closely contested with a spike of Lady Braybrook, exhibited by Mr. Chater. The best single bloom was exhibited by Messrs. Paul, who produced bloom of their Beauty of Cheshunt.

There was not a large number of seedlings ; the judges selected Bircham's Purple Perfection as the best ; this is a full sized, fine shaped flower, in the way of Pourpre de Tyre, but more purple. It is unquestionably a first-class flower. Mr. Bircham sent several

others, all possessing more or less merit. Schamyl, a dull bronze buff, was awarded a Certificate. It is a flower of first-rate form, if not a pleasing colour. Mr. Bircham also received a Certificate for his Empress Primrose, which is a very desirable acquisition. From Mr. Bircham we also noticed Jenny Lind, a good light, but not sufficiently dissimilar to existing varieties. Lemonade, a beautiful smooth flower, pale canary, with purple at the base, but too "pockety," as it is termed. Hidalgo, La Fourtinette, Bronze Yellow, Hedenham Rival, and Nugget. The latter a rich deep yellow, but very imperfect in other respects. Mr. Chater sent a large fine yellow, Sulphur No. 1, which will make a good thing. In the collections, but not shown as seedlings, we observed some fine flowers, seedlings not out, the best of which was Walden Rival, raised by Mr. Roake, a mottled orange, quite new in colour, and of the finest quality. Julia, by the same raiser, another mottled orange, is still more attractive in colour, but not so close or of so fine a form, yet a very showy flower. Solfaterre (Bircham) is a large clear Primrose, or pale yellow, a good spike, and full close flower.

In addition to the Hollyhocks, there was a very good exhibition of miscellaneous plants, cut flowers, &c., amongst which we noticed a very interesting collection of autumn flowering Roses, exhibited by Messrs. Paul and Son, of the Cheshunt Nurseries, consisting of the following varieties: Bourbon, Marquis d'Ivry, B. Prince Albert; H. P. Mrs. Rivers, H. P. La Reine, H. P. Baronne Halley, H. P. Gen. Castellane, N. La Beche, H. P. Gen. Cavaignac, B. Dupetit Thouars, H. P. Louis Peyronny, H. P. Alexandrine Bachmeteff, N. Aimée Vibert, H. P. Louis Odier, N. Jaune Desprez, H. P. Géant des Batailles, Tea Scented Narcisse, H. P. Madame Hilaire, H. P. Jules Margottin, H. P. Madame de Manvel, H. P. Baronne Prevost, T. S. Vicomtesse de Cazes, B. Prince Albert (Paul's), B. Souvenir de Malmaison, H. P. Gen. Jacqueminot, H. P. Auguste Mie, H. P. Glory of France, H. P. Souvenir de Leveson Gower, T. S. Glorie de Dijon. Two stands of Dahlias were contributed by Mr. Robinson, of Pimlico, twelve show varieties, and six fancy do.; in the former were noticed a perfect and most beautiful bloom of Queen of Beauties. Mr. Robinson sent ten varieties of Potatoes, excellent samples; the Fluke and Lapstone were conspicuous amongst them. The cut flowers from Messrs. Rollisson, of Tooting, deserve especial notice, containing the choicest exotics and greenhouse plants in great abundance.

MEMORANDA FROM KEW.

It is probably a fact worth observing, that where plant houses require any alterations, painting or re-glazing, the present season is the best throughout the whole year for performing these operations, as, if done during summer, the work becomes thoroughly seasoned before autumn or winter. Where sashes are removed from the houses for the summer season, they should now be cleaned and repaired, if necessary, as they

will in a short time be wanted again. Several houses here are at present undergoing alterations or repairs, amongst which are those occupied by the Heaths and Cactuses, which are being repaired and fresh painted. Two lean-to greenhouses are pulled down, and are now in the course of erection again; it is intended to convert them into hot-houses for tropical plants, and glaze them with small squares tinged with green, as large sheets of glass will in future here be dispensed with, on account of the burning heat produced by them, unless they are mostly always shaded so as to evade the clear bright rays of the sun.

The ill effects of last winter have here now all but disappeared, except with *Taxodium sempervirens*, which still continues very brown. The large specimen of *Amherstia nobilis*, which was removed to Kew from Ealing Park some time ago, suffered but little by the removal, although it was subjected for a week or more to a very low temperature, barely at times exceeding the freezing point, which caused it to soon become deciduous, but it has broken vigorously again all over the branches, and is at present well clothed with healthy foliage, and in the course of a few months may be expected to produce its flowers. In the same house is *Echmea miniata* in flower, a species resembling *E. fulgens*; it grows about a foot high and has a close head of flowers, which are scarlet and purple; this species has been introduced by way of the Belgian gardens. In some of the smaller hothouses is *Passiflora quadrangularis* producing flowers and fruit. This is an excellent kind for rafters or trellis work; the flowers are four to six inches in diameter, and the fruit much resembles that of the Vegetable Marrow; if only one or two are allowed to remain on the plant they attain a large size. *Dictyanthus Pavon*, a most singular flowering twiner, from New Spain, is here flowering profusely; it has slender stems, and flowers not much unlike those of the *Stapelia*, which are produced from the axil of every leaf. This is a plant well worth cultivating, for the singularity of its flowers; it may be grown on a small trellis about two feet high, in a mixture of sand and peat, in any ordinary plant stove. It is also known under the name of *D. campanulatus*. Another rather interesting hothouse plant is *Ceropegia candelabrum*, a new species introduced from Ceylon, and is now in flower; the habit is similar to *C. elegans*, but the flowers are smaller; they are light and yellow with green lines.

One of the best things in flower here is *Sandersonia aurantiaca*, a plant that will be useful for gardens; it is similar to a *Gloriosa*, has slender stems about two feet high, with pendulous, bell-shaped, very handsome, orange coloured flowers, produced from the axils of the leaves on the upper part of the stem. It has flowered here in a cool frame, while those in heat are not showing flower.

The chief things in blossom in the Orchid house now are *Stanhopeas*, *Sobralias*, *Phaius albus*, *Phalænopsis*, *Peristeria elata*, *Paphinia cristata*, and several large specimens of *Cattleya crisa*, which are very gay. This is one of the best of the *Cattleyas*; to grow it well it must be mounted high above the rim of the pot, kept in a tolerably good heat, and watered but very sparingly or seldom over-head. One of the large greenhouses, which is used as a show house during summer, is

exceedingly gay with its usual summer occupants, among which may be noticed some fine flowering specimens of *Hæmanthus insignis*, a species introduced from Natal, and which in general appearance resembles *H. multiflorus*, but is of a more robust habit, having a stout erect stem, a foot to a foot and a half high, bearing on its apex a close compact head, five to six inches in diameter, of numerous light red flowers, with deep yellow anthers. This is an acquisition to this genus, of which it is perhaps the very best.

Another recent addition to our "Everlasting flowers," is *Acrolinium roseum*, an annual herb from the interior of South-West Australia; it has been raised at Kew from seed imported by Mr. Drummond, and has been flowering in a cold frame for these two months past; it grows from a foot to near two feet high, has linear sessile almost decurrent leaves; each branch bearing a capitula or head of flowers, varying from half an inch to two inches broad, of a rose colour, with a yellow centre.

Among bedding out plants one of the most conspicuous is the *Petunia* "Gem," a very rich coloured variety in the way of "Shrubland Rose," but is decidedly a more preferable kind, the flowers being larger and of a deeper colour, and are produced in as great abundance as they are on the "Shrubland Rose."

J. HOULSTON.

CALENDAR FOR THE MONTH.

Auriculas.—These will only have to be kept clear of insects and dead foliage, and moderately moist, to keep the young roots well at work. If premature trusses of flowers should appear, pinch the buds off when well above the foliage.

Camellias and Azaleas.—Let the latter be frequently looked over for detecting thrips, which may now make their appearance, and should be effectually eradicated before the plants are housed for the winter; any plants which were not potted in the spring, and require shifting, may now be repotted, as the plants have made their growth; well soak the ball before potting, and be cautious, in watering them afterwards, that the water does not escape through the new soil and leave the mass of roots dry.

Carnations and Picotees.—The soil for wintering these plants should be kept sweet and tolerably dry. Commence potting into small pots towards the end of the month, to enable the plants to become well established to stand the winter. Let them be well hardened as soon as they have drawn root. They are generally grown to tender. It would be better to err with a little too much exposure than by sheltering too much on every occasion that the weather may prove unfavourable. Avoid wet and give plenty of air; these are two of the most important points in the winter culture of the *Carnation* and *Picotee*.

Cinerarias.—For seedlings and propagated plants of the old kinds,

the treatment should be about the same as last month. Repot into good rich soil such plants as are rooting freely to the sides of the small pots. Open the pits or frames night and morning, for a time, to keep the plants healthy. Should mildew appear, sulphur the leaves so affected on its first appearance, and fumigate if aphides are detected.

Conservatory.—If possible keep only a few extra plants in this house, for the next month, and make use of the time, by exposing the house as much as possible, to get the wood of the permanent inmates ripened off.

Cucumbers and Melons.—Cucumber beds exhausted by long bearing, and from which fruit is yet required, should have a surfacing of rich compost, and a little additional bottom heat, to swell off the remaining fruit. Late Melons must likewise be attended to, keeping the Vines thin, that the leaves may not shade each other; at this season they will require every ray of light, to enable them to produce well flavoured fruit. Keep up a steady bottom heat, and apply water only when necessary, graduating it in proportion to the decreasing amount of light. Keep Cucumbers for winter supply hardy.

Dahlias.—These are ten days later than usual this season. The spring was against early planting, since which we have had a very ungenial summer, the plants having very generally been covered with blight. The fine rains since, however, coupled with the warm weather we have lately experienced, has very much improved the plants. They are now becoming very strong, and promise a fine bloom throughout September. If the disbudding and thinning of the shoots have been attended to, as previously directed, there will be but little to do this month but to attend to the bloom. Late plants will require another thinning. In shading for exhibition avoid the error too often committed of close shading the blooms in a young state. Four or five days before the time they are required for exhibition is a sufficient time for many kinds at the commencement of the season, to be extended to eight or ten days as the season advances. Previous to shading, they should be securely tied, to prevent their being damaged by friction against the surrounding foliage. Many kinds take a much less time in blooming than others. This should be well attended to by the grower of flowers for exhibition. Soft centered Dahlias, such as Sir F. Bathurst, take the shortest time in coming to perfection. Those that have a hard green centre when young, take the longest, and should be allowed more time in blooming.

Flower Garden and Shrubbery.—In addition to the ordinary routine of cleaning, mowing, and dressing the beds, some of the earliest blooming annuals may now want removing, and their place filled up from the reserve stock, of which there should always be kept a sufficient supply in hand for these purposes; trim in straggling growths, and remove decayed blooms, dead leaves, &c. The propagation of stock for next season's supply should now be proceeded with without delay, and notes should be made of novelties under trial for bedding purposes; we shall fully report in a future number of the *Florist* on what has been tried by ourselves, and which will include the major part of the new things, but in the meantime all our readers should do the same.

Forcing Houses.—The earliest Vineries and Peach houses will now be fully exposed to the influence of the weather. Late Grapes will require to be kept dry, with abundance of air; fires may be necessary to effect this, occasionally, and nearly constantly to Muscats.

Hardy Fruits.—The summer wood will now be laid in on the wall and espalier trees. If time permits thin out likewise all the useless wood from Apple, Pear, and in fact every description of fruit tree; the advantage of this will consist in admitting more light and air to embryo fruit buds, and furnishing them at the same time with a larger amount of nutrition. Protect wall fruit from wasps and flies.

Hollyhocks.—These have been at their best from the 15th to the present time. The show at the Surrey Gardens on the 22d was a fine display, which surprised many by the beauty and symmetry of the flowers. In a cut state, however, they do not come near the Dahlia; they want the finish of the latter. Cuttings should be put in largely this month, they strike readily and make excellent plants for another season. Seed should be procured early, that the old flowering spike may be cut off to encourage the root to throw up cuttings. Sow seed as soon as ripe, and by transplanting the young plants, as soon as large enough, into small pots for wintering, they will flower well the next summer, thereby saving a season.

Kitchen Garden.—This will be a busy month for the kitchen gardener. The winter and spring crops will require frequent hoeings between, and water occasionally in dry weather; as more ground comes to hand dig up immediately, and plant a further supply of Broccoli and Winter Greens; all will be useful in spring. On a warm rich soil, plant the first crop of spring Cabbage. Should the weather be dry, Cauliflowers, Lettuce, and Radishes, should be well soaked, to have them crisp and tender. Well water Celery and remove the side suckers before earthing; let the plants get strong before this is attempted. Onions, take up and dry for storing. Potatoes the same; there is a favourable crop generally. Sow a plot more of Green Barrel Turnip (not green-leaved, as a misprint called it last month), this is a hardy Turnip and stands frosts well; they will come in either for roots or leaves in the spring. A few Cauliflowers, Lettuce, Onions, Cabbage, Spinach, and Parsley, may be sown for furnishing a late spring supply.

Mixed Greenhouse will now be gay with Neriums, scarlet Geraniums, Japan Lilies, Balsams, &c.; preparations must be made for receiving the regular plants towards the end of the month. Plants out of doors should now be fully exposed to the sun, to ripen the year's growth. Do not neglect specimen plants, but continue to stop and train the shoots as circumstances require. Chrysanthemums should be set thin, and well supplied with liquid manure; a few may be housed towards the end of the month for early blooming.

Orchids.—Those kinds which have completed their season's growth should be removed to a cool, dry atmosphere, for which purpose a separate house should be appropriated; if not, spare Vineries, or a cool, dry pit will suit some species, for a time at least. The progression to this stage of their culture must be gradual; to species still growing maintain a moist atmosphere—somewhat reduced, however, as the

influence of light decreases ; gradually withdraw the shading for the same reason.

Pansies.—Plant out beds for early spring blooming, and pot up what is required for flowering in pots towards the end of the month. Seedlings, as soon as large enough, should be planted out for blooming. Late saved seed may be sown, but not later than the first week in the month. Cuttings may be put in at this time with a certainty of striking, if healthy.

Pines.—As the principal summer crop is over, the beds should be at once prepared for the reception of the ensuing season's crop. Previous, however, to placing the plants in the pits, let the house heating apparatus, &c., be put in good order ; as this cannot be well done after the plants are in. After repeated trials with compost, we still incline to pure loam, if of good quality. As the fruiting plants are placed in their permanent quarters, pot on all the successions a stage, to fill up their places.

Pelargoniums.—These should now be housed. It is a common failing to have them out of doors, or in cold damp pits too long, thus laying the foundation for the spot. Keep the plants hardy, however, by giving them plenty of air. The plants for the May exhibitions, or early bloom, should have their final repotting towards the end of the month. Stop early struck young plants by pinching a piece out of the point, and look well to young stock generally, which requires much care and attention at this time. Too little growth is made generally before Christmas ; the plants have to do in spring what they should have done in autumn, and are growing when they should be blooming. The consequence is, there is never a good head of bloom at any one time. Fancies require similar treatment, excepting that a little more warmth may be applied during their young state.

Pinks.—Prepare beds for planting out at the end of the month for blooming. The beds should be a little raised in the centre, to throw off the wet, and plant about six inches apart. Rotten manure and common road sand should be put in the soil rather plentifully. Pot up a part of the stock, duplicates of the choice kinds, for wintering under glass, or otherwise sheltered, similar to Carnations, during the winter. These, if planted out in well prepared beds about the 1st of March, bloom both early and fine. The present number supplies the names of the best new varieties exhibited this season.

Stove.—During the fine weather we may now expect for a few weeks, let the stove plants, intended to bloom during the winter, be freely exposed ; this will arrest their growth and induce them to bloom at the right time, and let all the plants be closely looked over for insects.

Tulips.—Examine the bulbs occasionally ; green-fly sometimes attacks the points, and is easily checked if attended to in time. The soil in the beds for blooming them should be occasionally turned. Those that grow for exhibition should be on the alert to improve their stock, as we expect to see a spirited competition at Cambridge next season. The show is not only in the hands of those who will make the National Tulip Show of 1855 long remembered, but also has the additional stimulus of being the first season of its having the patronage of Her Most Gracious Majesty the Queen.



HYBRID PERPETUAL ROSE—"DUCHESS OF NORFOLK."

(PLATE 93.)

THIS is a strong growing variety, that will be particularly welcomed as a pillar Rose, as it makes shoots of a considerable length, and is remarkably free from thorns, as free as the Boursault. It has large handsome glaucous foliage, and blooms freely; colour bright crimson, with a beautiful shade of light pink in the under part of the petal. We saw it growing at Maresfield, and were told by Messrs. Wood and Son that it was raised by M. Margottin, of Paris, from whom they procured it. A large quantity of plants were in full flower, each shoot producing rich fragrant blossoms. Our artist has given an admirable representation of the flower, except that in colour it should be a shade or two brighter.

THE ROSES OF 1854.

NEVER since Roses have been cultivated in England to any extent has such a fatal season as the past been experienced by the growers. The severe frost in winter killed nearly all the buds of the Tea-scented and other delicate Roses, and numbers of the plants. The dry weather in March and April destroyed from half to two-thirds of the stocks planted in December; and the frost on the 25th of April so injured the young and tender shoots, which were soon after smothered with aphides, that scarcely any Roses bloomed at their usual season, in June and July. It was not till August that the Hybrid Perpetuals showed themselves in character, and since then they have flowered well. As usual with a favoured class of Roses, like the above, we are inundated with so-called novelties from France, plenty of variety in names, lacking, however, difference in character; but there are some few really good and distinct, and quite worthy of a few words in your "pleasant pages," and so I will endeavour to describe them.

Hybrid Perpetuals are *the* Roses of the day; they seem destined to supply all our out-door wants at least, and one is never tired of their varied beauties. There were forty or more Roses of this class alone, with new names, introduced last winter and spring, most of them of the same unvarying tints of "rose," "pale rose," and so on; many of them really good, but not differing enough from well established varieties to make them acceptable to the amateur. There are, however, a few, and very few, distinct, good, and acceptable to all lovers of Roses; and who is not? Holding a first rank among the few, is Jules Margottin, which is quite worthy of its descriptive English name, Perpetual Brennus; its very vigorous habit, and large finely shaped light vivid crimson flowers, remind us much of that very fine old

Hybrid China Rose, Brennus. For growing on its own roots, and pegging down, for a pillar Rose, and as a standard, it is equally well adapted, and will soon be in every Rose garden. Sir John Franklin and Gloire de la France are of the race of the Géant des Batailles, and two fine robust growing Roses; the former bright red, the latter more approaching to deep crimson; they are two fine varieties. General Jacqueminot is, like the above, one of our new Roses, and most striking, from the size of its flowers, which are of rich shaded crimson. It has, however, two faults—its flowers are not sufficiently double, and its habit of growth is rather slender and delicate. We now require Roses perfect in all points; large and double flowers, opening freely, fine healthy foliage, and a vigorous hardy habit. Duchess of Norfolk, which you have figured in the present Number, will probably form a nice pillar Rose. Now we come to a host of new names applied to Roses, with shades of rose colour and pink, such as Alphonse de Lamartine, Colonel de Rougemont, Madame Osmage (both varieties of the race of Baronne Prevost), Ceres, Gloire de Parthenay, La Ville de St. Denis, Lady Milson, Madame Hector Jacquin, a large and vigorous growing Rose. Madame Harriet Stowe, Aline Gibbon, Mademoiselle Quétel, Marie de Bourges, Sephora, Triomphe en Beauté, James Veitch, Leon Plée, and several others all pretty enough—for what Rose is not?—but with very little distinction in their characters. Gervaise Rouillard is a cheat; it is the old Hybrid China, General Lamoricière. Some few of the Roses among the Hybrid Perpetuals introduced in 1853 have bloomed this season in great perfection, and have proved themselves worthy of a place in every Rose garden. Such are Prince Léon Hotschouberg, or simply Prince Léon, which is a shorter and better name; and Paul Dupuy, two charming Roses. Alexandrina Bachmeteff, with its brilliant carmine flowers, is also a great acquisition, as is another Rose, with a tiresome Russian name, Prince Chipetouzikoff, with brilliant deep red flowers. It is not perhaps generally known how those crabbed names came to be applied to Roses by the French florists, so that a word or two about it may not be amiss. Before the war Paris was the great resort of the Russian nobility, who, in their visits to the Rose gardens near Paris, to make purchases, had new seedling Roses, to use the French term, “dedicated” to them, *i. e.*, in plain English, named after them. In return for this honour, orders were given and presents made. I have drank wine out of a gold enamelled cup, the gift of a Russian Princess; and with the same florist, I saw a handsome bracelet, and two or three showy rings, the gifts of the Russian great folks. To return to the Roses of 1853; Adam Paul is too double and large to open well in our climate. Souvenir de Leveson Gower is a magnificent crimson and first-rate Rose, and Triomphe de Paris, very dark crimson, has also bloomed beautifully. Lady Stuart, of the same colour, is not equal to Madame Rivers. Victoria has not opened well, and seems tender, as it suffered much by the winter. Archimède, Volta, and Ferdinand Deppe, are good rose-coloured and pink Roses, but not distinct enough. Among Bourbon Roses we have but one this season really worthy of attention, *viz.*, La Quintinie; this is most superb, its deep crimson flowers are of the most perfect shape; but it has one fault,

it is delicate in its habit, and requires the highest cultivation. Francois Herincq, also a new Rose of this class, is too much like Prince Albert, and Surpasse Comice de Seine et Marne.

In Tea-scented Roses, we have one really fine and distinct, viz., Gloire de Dijon; in its foliage, habit, and shape, and size of its flowers, it is almost an exact resemblance of the Bourbon Rose, Souvenir de la Malmaison, and, like that fine Rose, it requires dry warm weather to open its flowers in perfection. Its perfume is Tea-like and powerful, and in colour it is quite unique, being tinted with fawn, salmon, and rose, and difficult to describe. Auguste Vachn, is also a new Tea Rose, perhaps too much like Noisette Optima in colour and habit to be highly esteemed. It is long since we have had any new and good Noisette Roses; but this season a new variety called Augusta has been sent from America, which has bloomed in great perfection; it is of the race of Solfaterre, and resembles it closely in habit; its flowers are, however, more double and globular, remarkably elegant in shape, and in the centre of its flower it is a little deeper in colour. Another new Noisette Rose is Marie Chargé, of the Op'ima class; its flowers are larger, more brilliant in colour than that well-known Rose, and its habit seems very vigorous and hardy.

Sawbridgeworth, Herts,

THOMAS RIVERS.

ROYAL SOUTH LONDON FLORICULTURAL SOCIETY.

THE last meeting for the season took place on Wednesday, September 6, and for so late a period of the year the show was a very good one. There was a good supply of Dahlias, but as the season has been very unfavourable for this flower, the blooms were only of average quality. In the Nurserymen's Class for twenty-four blooms, Mr. Keynes, of Salisbury, was first, with Negro, Lilac King, Sir R. Whittington, Exquisite, Sir C. Napier, Louisa Glenny, John Keynes, Mr. Herbert, Essex Triumph, Miss Caroline, Fearless, Primrose Perfection, John Edwards, Sir F. Bathurst, Ariel, Rachel Rawlings, Morning Star, Port Royal, Fanny Keynes, Miss Susan, Duchess of Kent, Duke of Wellington, Plantagenet, and Red Gauntlet; Mr. Legge, of Edmonton, was second, with Amazon, Lord Byron, Sir R. Whittington, Mr. Seldon, Lord Nelson, Lilac King, George Glenny, Sir F. Bathurst, Sir J. Franklin, Niobe, Taylor's Dazzle, Mrs. Cooper, Scarlet King, Gem of the Grove, Duke of Wellington, Fearless, Jullien, M. Souchet, Scarlet Unique, Annie Salter, Hon. Mrs. Herbert, Admiral, Brilliant, and Sir Charles Napier; Mr. Kimberley, of Coventry, was third; and Mr. Gaines, of Battersea, fourth.

For twenty-four Fancy Dahlias, Mr. Keynes was 1st, with Triomphe de Robeaux, Mrs. Hansard, Flower of the Day, Topsy, Gloire de Kain, Rosinante, Lady Granville, Duchess of Kent, Phaeton, Reine des Fleurs, Pidgeon, Abbé Bouquillon, Uncle Tom, Butterfly, Duchesse de Brabant, Princess Charlotte, Admiration (Green's), Leader, and Miss Blackmore; Mr. Legge was second.

In the Amateurs' Class for twenty-four Blooms, J. Sladden, Esq., of Deal, was 1st, with a box of well selected blooms, consisting of Lilac King, Fanny Keynes, Sir R. Whittington, George Glenny, Miss Caroline, Bob, Grand Duke, Richard Cobden, Indispensable, General Faucher, Exquisite, Essex Triumph, Niobe, Beauty of Thanet, Annie Salter, Queen of Lilacs, Mrs. Seldon, Scarlet King, John Edwards, Thames Bank Hero, Amazon, Fearless, Model, and Morning Star; J. S. Prockter, jun., Esq., was 2nd, with Rachel Rawlings, Red Gauntlet, Miss Spears, Sir F. Bathurst, Yellow Standard, Laura Lavington, Lady St. Maur, Jullien, Louisa Glenny, J. Davis, Beauty of the Grove, General Faucher, Gem, Scarlet King, Fearless, Fame, Annie Salter, Sir J. Franklin, Bishop of Hereford, Duke of Wellington, El Dorado, Privateer, Amazon, and Morning Star; C. J. Perry, Esq., of Handsworth, near Birmingham, 3rd; Mr. W. Holmes, of Hackney, 4th; Mr. Jeffery, of Hedgerley, 5th; and Mr. Cook, of Notting Hill, 6th.

For twelve blooms: 1st, Mr. J. Robinson, of Pimlico, with Fearless, Beauty of the Grove, Sir J. Franklin, Robert Bruce, Duke of Newcastle, a yellow variety, Sir F. Bathurst, Admiral, John Keynes, Louisa Glenny, Sir Charles Napier, Mrs. C. Bacon, and Sir R. Whittington; 2nd, to R. Castle, Esq., Sandwich, Kent, with Beauty of Thanet, Grand Duke, General Faucher, Niobe, Mrs. Seldon, Essex Triumph, George Glenny, Amazon, Richard Cobden, John Edwards, Model, and Fearless; 3rd, Mr. Battie, of Erith; 4th, Mr. John Pope, of Pimlico; 5th, A. Dyson, Esq., Stoke, near Slough; 6th, J. S. Prockter, jun., Esq.; 7th, Mr. Kateley, gardener to J. M. Thorne, Esq., of South Lambeth.

For Fancies, twelve blooms, Mr. Robinson was 1st, with Phaeton, (two blooms), Rembrandt, Admiration (Green's), Flora M'Ivor, Jonas, Mrs. Hansard (two blooms), Mrs. Willis, Miss Matthews, Motley, and Leader; 2nd, C. J. Perry, Esq., with Elizabeth (two blooms), Mrs. Willis, *Striata perfecta*, Miss Compton, Gloire de Kain, Rachel, Mrs. Hansard, *Empereur de Maroc*, *Reine des Fleurs*, Gloire de Kain, and Matthew Cole; 3rd, J. S. Prockter, jun., Esq.; 4th, J. Sladden, Esq.; 5th, Mr. Battie.

Hollyhocks, in twelve spikes, were shown by Messrs. Chater and Paul, and notwithstanding it was late for this flower, the spikes were of good quality. Mr. Chater, of Saffron Walden, was first, with Lilac Model (a beautiful close variety), Meteor (Bircham's), large and brilliant, but rather coarse, Hon. Mrs. Ashley, light pink, very fine, Beauty of Cheshunt, bright rose, large, and fine, Eugenie, salmon buff, close, and well formed, Walden Gem, Joan of Arc, beautiful deep blush, fine form and close, Rosy Circle (Chater's), a little deeper in colour than the Hon. Mrs. Ashley, *Pourpre de Tyre*, a good purple crimson flower, Sulphur Queen (Chater's), a good variety, Napoleon (Pow's), and Emily (Roakes), bright light pink, large and fine; Messrs. Paul and Son were second, with Metropolitan (Paul's), a bright crimson, close, well formed flower, but rather low in the centre, Joan of Arc, Glory of Cheshunt, pale yellow; King of Roses, bright rose, close, and fine; Lizzy, a very fine light variety, Queen of Denmark, Flambeau, Louis Napoleon (much lighter than Pow's Napoleon), Yellow Model, Emperor,

Agricola, and *Boadicea*, very pale salmon, close, and good. There was but one collection of Hollyhocks, in six spikes, and that came from A. Dyson, Esq., to whom the 1st prize was awarded, but the spikes were of indifferent quality.

Three collections of Miscellaneous Stove and Greenhouse Plants were exhibited. Mr. Hamp, gardener to J. Thorne, Esq., South Lambeth, was first, with *Erica Ewerana* (two plants), *Dipladenia crassinoda* (two plants), *Gesnera picta*, an excellent showy late blooming plant; *Allamanda Schotti*, a pretty little plant of *Burlingtonia venusta*, *Ixora rosea*, *Clerodendron splendens*, *Ixora javanica*, *Allamanda cathartica*, and *Pimelea decussata mirabilis*. The 2nd prize was awarded to Mr. Rhodes, gardener to J. Philpot, Esq., Stamford Hill, for some fresh young bushy plants, of *Ixora crocata*, *Statice Holfordi*, *Cyrtoceras reflexum*, *Erica metulæflora*, *Achimenes longiflora major*, *Crowea saligna*, *Allamanda cathartica*, *Erica Irbyana*, *Russellia juncea*, *Leschenaultia formosa*, *Tetratheca verticillata*, *Erica retorta major*, and *Rondeletia speciosa*. The 3rd prize was gained by Mr. George Young, of Dulwich Hill. A most interesting and select collection of variegated and ornamental plants was also contributed by Mr. Young; the most noticeable being the variegated Pine, *Caladium picturatum*, *Echites picta*, *Coleus Blumei*, *Cissus discolor*, *Caladium bicolor*, and *Maranta albo-lineata*.

In Cut Flowers, Messrs. Paul and Son were first, for cut Roses, and a collection of Hollyhocks was also sent by the same firm. Mr. George Smith, of Islington, was first with 2½ cut Verbenas, among them being Mrs. F. G. Caley, Augustine, Rougieri, Jesse, Francisce Rousseau, Iver Rival, King of Scarlets (Smith's), not so attractive as King of Scarlets (Thomson's), also in the same stand; Ajax, Arsine Bougard, Nobilissima, Augustine, Madame Schmidt, Juliet, and Glory. Mr. Wetherall, of Holloway, was second, and C. P. Lochner, Esq., third.

Among Miscellaneous subjects, Mr. Wetherall had six large scarlet Geraniums, short and bushy, measuring from two to three feet in diameter. These are very effective for decorative purposes, but we should like to see better sorts exhibited than such very old varieties as Mr. W.'s collection consisted of.

Mr. John Edwards, of Holloway, sent nice plants of *Lilium lancifolium* in variety; and an extra prize was given to Mr. Wetherall, of Holloway, for six Verbenas in pots, which in our opinion showed no extraordinary skill in their culture. The sorts were old, flowers poor, and twisted to suit flat trellises. We thought this system of growing Verbenas had been abandoned long since. Mr. Wyness, of Buckingham Palace Gardens, sent a collection of Petunias in pots; and Mr. Duke, of Rotherhithe, had a collection of seven Fuchsias, and we should have been pleased to have seen some flowers upon them, as well as newer sorts. The 1st prize for single specimen plants was justly awarded to Mr. Hamp, for a very fine *Ixora coccinea*; and the 2nd prize to Mr. Rhodes, gardener to J. Philpot, Esq., of Stamford Hill, for a well-grown *Ixora javanica*.

For the best six sorts of Fruit, Mr. George Young was first, having a Queen Pine, Black Hamburgh Grapes, Victoria Plums, Golden Per-

fection Melon, Brown Ischia Fig, and Bananas. The 2nd prize was awarded to J. August, Esq., Biddington, Surrey; and the 3rd prize to Mr. Hamp.

Pines: 1st prize to Mr. Hamp; 2nd do. to Mr. Young.

Grapes: 1st prize to Mr. Chapman, of Vauxhall; 2nd, to Mr. Hamp, both for Black Hamburgs. Mr. Wortley, of Norwood, sent some Muscat Grapes, small bunches, but very large berries.

Preserved fruits in bottles were shown in excellent condition, by Mr. Lovejoy, of South Lambeth; and many a young matron looked and wondered at their own want of success.

There was a good muster of Seedling Dahlias. Mr. George Wheeler, of Warminster, sent Lord Bath, deep maroon, depth of petal, good form and substance, and Primrose Peerless. Mr. Charles Turner sent Ringleader (Holmes's), a first class ruby crimson flower, medium size, deep petal, and fine form. This flower received a first class Certificate from the Society last year. Mr. Church exhibited James Andrews, a buff coloured flower, Royal Albert, and Loveliness, yellow, with a white tip. Mr. Pope, of Pimlico, sent Omer Pacha, ruby crimson, which received a first class Certificate. Mr. Rawlings exhibited Miss Frampton, deep red, with shaded white tip, fine shape, and good substance, to which a first class Certificate was awarded; and Mr. Critchett, crimson; Dr. Read, purple; Beauty, light with purple tip; and Thunderer, pale scarlet, deep and good shape. Mr. Keynes sent Comet, pale yellow and pink, slightly striped with crimson; Lady Folkestone, a "Fanny Keynes," flower with better centre; and Ruby Queen, ruby red, good shape, to which a first class Certificate was given. Green's Yellow Model and Collier's George Selby were also exhibited.

Two Seedling Hollyhocks were exhibited, both from Mr. George Young—Queen Victoria, light rose colour; and Prince Albert, light crimson, but unworthy of its name.

HINTS ON GRAPE GROWING.—No. IV.

BY A GARDENER IN THE COUNTRY.

THE importance of bestowing care in the formation of the *borders*, in which the Vines are to be planted, rather than waste money in making the *house* ornamental, was pointed out in my last paper. A good border is certainly the greatest help towards obtaining good Grapes. I have in my time superintended the making of many, and have seen many others made, and the recommendations now given are based on practice derived from experience; for, after all, what constitutes a good border is still a problem not satisfactorily proved with many. There is one opinion strongly rooted in the minds of the non-professional Grape growers, viz., that a Vine border must consist of a goodly proportion of rotten dung, butcher's refuse, or dead carcasses, bones, and the like; for, say they, the Vine will grow on a dunghill. And we have very frequently witnessed the enthusiasts in Vine culture putting dead carcasses to the roots of some favourite Vine, with the hope that next

season the Vine will be forced by such an extraordinary stimulant, and produce something prodigious in the way of Grapes ; and I have been oftentimes asked how it was, after so and so had been carefully put to the roots, no better results had been obtained ? Now it is very difficult to persuade people on points referable only to laws based on the physiology of plants ; and therefore the short answer I give for prudent motives, " Wait and see another year," is perhaps the best. I may now state that all the ingredients enumerated are useful enough in the hands of the skilful gardener (though not indispensable), but in nine out of every ten cases which have come under my observation, they are, in the hands of the amateur, productive of more mischief than aught besides. What the Vine really requires was stated in my first paper, but it may not perhaps be amiss to look at the matter again.

It is a mistaken notion that the Vine grows best in the richest soils ; on the contrary, the sloping sides of mountain ranges, and dry gravelly or rocky soils, are proverbial for producing the richest Grapes and the most durable trees. In the east, where the Vine is indigenous, the soil is usually shallow, resting on a rocky substratum. To improve the size of the fruit, manures have from time immemorial been employed ; but then, we must remember, the nature of the subsoil—affording complete drainage—and a climate producing a much more rapid evaporation than our own ; hence, in warm latitudes, a soil much richer than any we ought to employ may be used. This was Mr. Hoare's theory, but he carried it too far. As the future welfare of the Vine will, then, in a great measure depend on the drainage of the soil in which it grows, the formation of the border must be such that water should pass freely through it, without any detention whatever ; and to ensure free evaporation from the surface, the border should be somewhat elevated above the surrounding soil. Gravelly, and rocky or chalky bottoms, if free from springs, form the best natural subsoil for the Vine, on which the border may rest, with merely a drain along the front, and below the bottom, to carry off any water which may percolate to the lower level. But, when an artificial subsoil has to be made, I strongly recommend having it paved with rough flagging, if such can be obtained at a reasonable cost. To carry this out properly a space should be cleared, the width of the border, which considering the houses are narrow, and that two feet of the border will be inside, need not be more than nine or at farthest ten feet from the front. I purpose the border to be two feet deep ; and to allow for the supporting walls and flagging, two feet more will be necessary. This bottom should be made to slope upwards towards the house, and should be made firm, to carry the dwarf walls without danger of their sinking ; if wet, concrete the surface with hot lime, gravel, and coal ashes ; this will cut off all connection of the roots with damp. One foot below the level of this prepared bottom, a main drain must be carried along the front of the border two feet square ; next, run rough walls as wide apart as will carry the flag-stones ; these should run from the main drain, direct to the extent of the border inside the house, where, if possible, the end should be left open. Carry them up one foot in height, and on them place the flagging, beginning at the bottom, and proceeding upwards ;

these need not be placed exactly close together, neither will it matter, if they vary in size or thickness; smaller pieces can be put in between, where wanted, and two or three inches of broken rubble should be placed over, which will then be ready to receive the soil. It will be evident no water can lodge in a border placed over so thorough a drainage, and the passage of air underneath from the main drain to the house will assist in removing any dampness below. I have been thus minute in describing the drainage necessary, unless, as alluded to above, the natural drainage is perfect, owing to the nature of the subsoil. If the house is a detached one, a dwarf wall at the ends will be required—or, what will answer the purpose as well, with a less stiff appearance, the soil of the border may be kept up by a piece of low rockwork.

The best way to prepare the soil will be to obtain some turf three or four inches thick from a pasture field or common. Neither turf from strong clays nor sandy soils are good, loam of a medium texture being best; neither should it be obtained from low wet situations, but from sound dry land. This, when procured, should be stacked up with fresh horse-dung, or with that combined with cow and pig dung, using the latter more largely, if the loam is of a light character; to these add a portion of scavenger's manure, which always contains fertilising matter, and more or less of sand and grit. Old mortar may be used or not. These ingredients should be stacked up in layers; the heap will soon heat, from the mixture of fresh manure, and this will help to decay the turf, and bring it into a state fit for use. The heap, when it gets cold, may be chopped down and turned over once, when it will be fit for use. As a guide in mixing, let three parts be loam, one manure, and one rubble materials, including road grit, town sweepings, or old mortar. Mind, never allow it to get saturated with rain, nor yet break it down too fine.

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. X.

XVIII. *PINUS INSIGNIS*—THE REMARKABLE PINE.

By common consent *Pinus insignis* stands at the very head of the list of ornamental Conifers. The beautiful intense green of its foliage, dense habit, and compact form, added to its rapid growth, render it a most prepossessing tree. Our engraving represents a vigorous growing specimen at Bowood, the residence of the Marquis of Lansdowne.

Pinus insignis is a native of California, clothing the mountains in the neighbourhood of Monterey to their summit. Seeds of this Pine were first sent to England by Douglas in 1833, since which time it has been more largely introduced. Hartweg, the botanical collector for the Horticultural Society, who spent some time in Monterey, speaking of the vicinity where *Pinus insignis* is abundant, says, "The verdant fields and Pine-covered range of mountains at the back of the town form a pleasing contrast to the dried-up vegetation about Mazatlan. The pre-



PINUS INSIGNIS AT BOWOOD.

Height, 42 feet; circumference of trunk, at 1 foot, 48 inches.

dominating trees are an evergreen Oak (*Quercus californica*), occurring on the lower grounds, the higher parts being occupied by *Pinus insignis*—a tree 60 to 100 feet in height, with a stem of two to four feet in diameter. This species is liable to vary much in the size of the leaves (which stand in threes) and cones, according to local circumstances. . . . These differences, which are too insignificant to establish even varieties of *Pinus insignis*, have given rise to the names *Pinus tuberculata* and *radiata*, which were, according to Loudon, collected by the late Dr. Coulter near the sea-shore at Monterey; that locality no doubt is Point Pinos, as it is the only habitat near Monterey where Pines grow close to the beach; it is at the same time the place where I made the foregoing observations.”

Pinus insignis forms an upright growing tree, furnished with numerous branches down to the ground, which as they grow have an upward tendency; these are thickly clothed with leaves, presenting a dense mass of foliage of the deepest green; they are arranged by three and sometimes four in a sheath, the older ones being much twisted; they vary in length between four and six inches from trees in different situations; the cones are ovate, bluntly pointed, about three inches long, with tubercular scales. As stated above, the tree attains the height of 100 feet in its native country, and there can be no doubt, judging by the rate of growth of the tree in this country, that it will fully equal those dimensions in Britain.

The specimen figured was planted by ourselves in 1838, then about 18 inches high; it now measures 42 feet in height, with a stem girthing 48 inches at one foot from the ground, and this in very poor sandy soil, and without any assistance in the shape of manure, &c.

As regards the application of this tree to park or forest scenery, we may observe that it can hardly be planted out of place; we believe it will thrive (except on strong cold clays) on any soil or exposure in Britain. For effecting an impenetrable blind it has no equal, from the rapidity of its growth and extremely dense foliage. As a plantation tree it will form one of the best preservers of game, for the like reasons; while it is equally to be recommended as a park tree, where its dark green foliage will contrast favourably with other Conifers; or for an ornamental lawn plant; and as cemeteries are now springing into existence in all directions, this tree may claim attention as a suitable one for decorating even our last resting-places.

From specimens of the wood exhibited before the Horticultural Society this last spring, we may infer the wood has no particular merit to recommend it; but as an ornamental and useful tree, in our opinion, it is not surpassed by any among our hardy Conifers.

XIX. *PINUS RADIATA*—THE RADIATE SCALED PINE.

A species nearly allied to *P. insignis*, which it closely resembles in general appearance. Gordon states, that it differs from *P. insignis* in the latter having stouter and longer leaves than *radiata*, which latter has cones nearly three times the size of *insignis*, more pointed, and with scales much more elevated; it was first discovered by Dr. Coulter (see note on *P. insignis*), who states it to grow near the level of the

sea, to attain the height of 100 feet, with a straight stem feathered with branches down to the ground, and to produce an excellent timber for boat building, for which it is much used at Monterey. Our own specimens have coarser and larger leaves than insignis. It grows with fewer branches, forming less of a bush while in a young state, and having more tufty foliage, which partakes of the deep green of insignis. Our own opinion inclines us to consider it more in the light of a variety of insignis than as a distinct species, which appears to be Hartweg's opinion, as quoted above. It is, however, equally entitled to our notice, and from the fact of its growing on the sea beach in California, it will be well adapted for the sea coast of Britain, where it will form a valuable acquisition to the list of plants suitable for sea-side planting.

NATIONAL FLORICULTURAL SOCIETY.

September 7.—DR. SANKEY in the Chair; Messrs. Lidgard, Parsons, and Holmes censors. Several seedling Dahlias were produced; Mr. Dodds, of Salisbury, had Miss Herbert, bronzy pink, with light tip; Lord Raglan—a Sir John Franklin flower, but lighter in colour; and Mrs. Stowe, bright lilac pink, medium form, and a very pretty flower, to which a Certificate of Merit was awarded. Mr. George Wheeler, of Warminster, sent blooms of Lord Bath, deep maroon colour, good form and substance, with depth of petal, and Primrose Peerless, a promising primrose flower. The former of these—Lord Bath, would no doubt have received an award had the flowers been in good condition. Mr. Keynes sent Ruby Queen, bright ruby red, a well formed medium sized flower, to which a first class Certificate was awarded; Comet, pale yellow and pink, slightly striped with crimson, which received a Certificate of Merit; and Lady Folkeston, yellowish buff tipped with bright rosy purple, which also received a Certificate of Merit. Mr. Rawlings sent Miss Frampton, deep red ground with shaded white tip, good form and substance, and well deserving the first class Certificate awarded to it. Mr. Pope, of Pimlico, exhibited Omer Pacha, scarlet, and Mrs. Howard, light yellow, shaded and tipped with deep salmon; a Certificate of Merit was awarded to the latter variety. A few good seedling Hollyhocks came from Mr. Parsons, of Welwyn, but as single blooms only of each variety were shown, the judges could not give any awards. In our opinion the best were Argo, deep yellow, large and close; Standard, salmon buff, high close centre, fine form; and Mrs. Parsons, bright rosy salmon, and a striking flower; these are flowers of first-rate quality. Next in merit were Little Gem, light rosy pink, close and well formed, but small, Orange Unique, orange and pink, guard petal somewhat coarse, and Eliza, bright rosy pink.

Pleased as we are to record the merits of good things, we must protest against the rubbish put up for the judges' decision, which, however, was soon arrived at, as on this occasion several *Antirrhinums* were staged, not one of which was worth a moment's notice. The same remark applies to several seedling *Verbenas* staged, which were not equal

to existing varieties. Messrs. Dobson and Son sent a dwarf white Phlox called *Omniflora compacta*, to which a Certificate of Merit was awarded; and blooms of a seedling light-coloured Verbena, called *Fragrans*, in which we could perceive no other merit than its fragrance. Mr. John Cole, of St. Alban's, exhibited cut blooms of his very pretty pure white bedding *Calceolaria*, *Purity*, a variety that should be extensively grown for bedding purposes. We had nearly omitted to state that Mr. Rawlings also exhibited his seedling Dahlias, *Dr. Reid*, dark purple, and *Mr. Critchett*, deep scarlet.

We cannot refrain from observing how admirably the National Society has worked out the object its promoters had in view, inasmuch as it has now become the principal ordeal for seedling florists' flowers, and is supported by the presence, as well as purse, of many of our leading florists, both amateur and professional.

September 21.—G. HOLMES, Esq., in the Chair; Censors, Messrs. Parsons, Lidgard, Cook, Robinson, Hamp, W. Holmes, and Bragg. Dahlias formed the principal subject, and were exhibited in considerable numbers, and included some very fine flowers. The Rev. C. Fellowes, of Shottisham Rectory, near Norwich, sent eight varieties—*Cossack*, a brilliant carmine, full size, with close, well-formed centre; the *Nigger*, which is perhaps the darkest flower grown, being nearly black, and smaller in the petal than the old favourite, "*Essex Triumph*." Three blooms of each of the above two varieties were shown, and both had Certificates awarded them. Mr. Fellowes also sent twelve blooms of his *Pre-eminent*, a large deep purple, which appears to be another *Mr. Seldon* for constancy; each bloom had a close perfect centre, but it was not otherwise in such good condition as it was exhibited at Salisbury, Brighton, and Norwich, at each of which places it appeared to be the favourite. The judges, however, considered it to be a very superior flower, but not in proper condition on the present occasion. The other five were—*Tasso*, dark shaded puce, rather small, but fine petal and form; *Portrait*, a light orange scarlet; *Harbinger*, an improved *Shylock*, a very deep flower; *Agincourt*, bright purple, a very promising flower, with good petal and size; and *Glenlyon* and *General Washington*: the two latter were not good. Mr. C. J. Perry, of Birmingham, was awarded a first class Certificate for his seedling fancy Dahlia, *Baron Alderson*, orange, tipped with white; this was not so fine as when shown at Brighton, yet had the same close high centre; three blooms of it were shown. Mr. J. S. Prockter, of Bermondsey, sent three varieties,—*Fanny Russell*, *Empress*, and *Miss Russell*. The first named is a pretty fancy flower, of good shape and medium size, salmon buff, tipped with pale flesh colour; this is a neat, smooth, flower, and had a Certificate awarded to it. *Empress* is a pretty light flower, something like *Annie Salter*. *Miss Russell*, lilac, is all that can be desired in form, but has a loose imperfect centre, the petal standing upright instead of incurving. *Lollipop*, exhibited by G. Holmes, Esq., is a large reflexed flower, with a high centre; the outline is very good, being nearly half a globe, of a curious pinkish buff colour. Three blooms were exhibited, and a Certificate was awarded to it, although a seedling of 1854. A first

class Certificate was awarded to Mr. C. Turner, of Slough, for *Espartero*, a flower of great substance, smooth, and of good form; the centre is close and high; the petals are small, close, and well-arranged, and nine blooms of this variety were exhibited. Dr. Reed, a dark maroon *Dahlia*, was exhibited by Mr. Rawlings, and has some good points, but as exhibited, there was not enough of it. There were also nine blooms of *Holmes' Ringleader*, exhibited in excellent condition, flowers of the most symmetrical and perfect form, but having obtained a first class Certificate in 1853, it could not again be submitted to the opinion of the judges. G. Holmes, Esq., sent 12 blooms of named varieties, in which we noticed a fine bloom of *Sir John Franklin*, which, when large, and as exhibited on this occasion, is without an equal in form; this bloom was deservedly admired, and was useful to test the seedlings by. There were several other *Dahlia*s, none of which claim especial notice. Of other subjects, the most interesting were some varieties of *Phlox Drummondii*, exhibited by Mr. Cole, St. Alban's, two of which were large and very round, with large distinct white eyes. The same exhibitor sent *Pentstemon giganteum majus*, not particularly distinct from some already in cultivation, yet a good variety, having, perhaps, more white in the throat than similar kinds; also cut blooms of shrubby *Calceolarias*, amongst which we noticed *Prince of Orange*, a good bedding variety, of dwarf habit, small, with compact heads of flower, and of rather a novel colour—yellowish brown. Mr. Geo. Smith, of Tellington Nursery, exhibited a seedling *Verbena*; and a collection of *Kestell's garden labels*, of various sizes, was exhibited by Kestell and Co., of Burnham, Bucks; these are decidedly the most ornamental and durable labels for the *Pinetum*, or any large plants, *Roses*, &c., that we have met with, and are now being supplied at a moderate price.

POMOLOGICAL SOCIETY.

OUR readers will find in another part of the present number the Rules of this Society, which have passed the Council and are now being distributed to members, and may be had gratis on application to the Secretaries, 20, Bedford Street, Covent Garden. Our readers will see by the Rules that the Society is very wisely proceeding on a wide basis, having selected a low scale of subscription, to bring it within the means of the humbler cultivator of fruits, while the objects the Society seeks to establish have claims on the support of the highest in the land. Every landowner and individual interested in promoting the welfare and happiness of the lower classes should join this institution, as a means of bringing within their reach a better supply of hardy fruits.

Considering the large sums which are paid by this country annually for Apples alone, which, so far as the working classes are concerned, may be considered an article of luxury, we are surprised that no liberal-minded proprietor has ever thought of converting the nearly useless hedgerows of England to useful purposes, as is done in France, Belgium, and on the continent generally. Much of this may, no doubt, be

attributable to a want of knowing the most suitable kinds to plant on the various soils and exposures, certain varieties of Apples, as is well known, preferring certain districts and soils to others. This difficulty the Pomological Society is taking steps to clear up, by inviting a competition of fruits from every district of Great Britain, as well as by electing local secretaries, &c., whose knowledge of the fruits of their respective districts will enable the Society to form data for recommending to each district the varieties most suitable for their particular localities. This will be, in addition to giving every facility and encouragement for the raising of new varieties, and putting a proper value on their respective merits, a guide for the public.

Those who have paid most attention to the subject of new fruits, whether home seedlings or introductions from abroad, have long been aware that, however satisfactory, the only public ordeal they underwent (trial by the Horticultural Society) afforded but a very uncertain criterion of the real merits of the fruit under trial, and this through no fault of the Society or its officers, but simply of the system. It is well known that a favourable or unfavourable report on a new fruit proved only in the garden of the Horticultural Society, would scarcely affect it when grown in the new red-sandstone soils of the midland counties, or the old sandstones of Herefordshire, or the Carse of Gowrie in Scotland, to say nothing of the rich limestone soils of Ireland. In fact every district has, both in regard to soil and situation, some peculiarities which operate favourably or the reverse on fruits growing on it, and which the decision made at Chiswick would scarcely affect. By going on a much more simple, less expensive, and far more comprehensive plan, the British Pomological Society will establish something like an adaptability of FRUITS to SOILS and EXPOSURES; and now that it is fairly on its career of usefulness, we heartily wish it success.

THE EDINBURGH NURSERIES.

STANDING on the Calton Hill, on a clear day, and looking down towards Leith, may be seen on the south side of Leith Walk, the extensive nursery grounds of Messrs. Dickson and Co., and, on the opposite side of the road, Messrs. Eagle and Henderson's nursery is clearly visible. Looking northward, beyond the beautiful Scott monument and Princes Street, you can clearly make out, in the Inverleith Road, Messrs. Peter Lawson and Son's extensive nurseries; and on the opposite side of the way Messrs. James Dickson and Son's establishment. Nearer towards the town, picturesquely clumped among trees, can be seen the glass erections of the Experimental and Botanic Gardens. So much for the distant views. From Waterloo Place, a few minutes' walk brings you to

MESSRS. DICKSON AND CO'S NURSERY, LEITH WALK.

This establishment is remarkable for neatness and order, and this remark is more or less applicable to most of the nurseries in the Scotch metropolis, but particularly to this. There are several well-constructed

houses, in which general collections of stove, greenhouse, and soft-wooded plants are cultivated. In the extensive grounds will be found an immense stock of seedling Larch and other forest trees, together with full collections of fruit trees, hardy trees and shrubs, American and herbaceous plants, &c. We here noticed the Kilmarnock Weeping Willow, as a much more beautiful tree than we had seen it elsewhere. Its general appearance in nurseries, at present, is that of somewhat stunted growth, but here it had made vigorous growth, induced by cutting back freely in spring, and was really a handsome drooping tree. From this nursery some good Pansies have issued, and among them Miss Talbot, Royal Visit, Earl Mansfield, Marion, Royal Standard, &c., produced by Mr. Tait, of this establishment, a well known cultivator of this popular flower.

MESSRS. EAGLE AND HENDERSON'S NURSERY

is immediately opposite, and has a commanding appearance from the road, the greenhouses being at the extremity of the front nursery. A broad walk leading to them from the entrance is planted on each side with ornamental trees and shrubs. This, which is now becoming general, is a good plan of showing such trees and shrubs as may be grown for sale, of a much larger size than would be safe or profitable to keep on hand, and purchasers can see for themselves the character of what they want, much better than in the ordinary nursery stock. The hardy department seems to have the greatest attention here, and a very full collection of trees, shrubs, herbaceous, and alpine plants is cultivated. A short distance from here is

MR. THOMAS METHVEN'S NURSERY,

situate in the Bonnington Road. Here a good collection of hybrid Rhododendrons is to be found, as they are cultivated largely and some pains taken to secure improved hybrids. This is not a large, but well kept nursery, where a general collection of plants is cultivated. Away towards Granton, in a less smoky atmosphere, is

MESSRS. PETER LAWSON AND SON'S NURSERY,

which will amply repay a visit. We believe about 70 acres of ground are cultivated, the whole of which is systematically laid out for nursery purposes, and kept in the neatest order. Vast quantities of seedling forest trees are grown here, together with full collections of hardy trees, shrubs, Roses, fruit trees, herbaceous plants, &c., including a very large and complete collection of Coniferæ, to show the character of which a Pinetum has been established, wherein every species and variety in Britain may be examined and compared. In the houses we noticed collections of Fuchsias in bloom (including Duke of Wellington, which here is not giving satisfaction), Geraniums, and other soft-wooded plants, including stove and greenhouse ditto. This firm is celebrated for being perhaps the largest seed establishment in the world. Their seed warehouse and museum in Edinburgh is a princely concern, and well worth a visit. They have besides branch establishments in Dublin, and have lately started one in London, and most of our readers will remember their valuable collection of the vegetable productions of Scot-

land in the Crystal Palace of Hyde Park, now in possession of the authorities at Kew. Opposite to this is

MESSRS. JAS. DICKSON AND SON'S NURSERY,

close to the entrance of which are several houses, in which stove and greenhouse plants are extensively grown. Out of doors a full collection of hardy plants is cultivated. This establishment was long celebrated for the culture of Pitcher plants: and Dahlias are grown extensively, Mr. Lamont, the manager of the nurseries, being well known as a successful cultivator, having again carried off the first prize at the exhibition in Edinburgh on the 9th inst., and not without strong competition. Soft-wooded plants are generally grown here. The leading establishment, however, for soft-wooded plants is

MESSRS. DOWNIE AND LAIRD'S NURSERY,

where Hollyhocks and Dahlias are largely grown. This is but a recently established nursery, but the proprietors seem to direct especial attention to florists' flowers, as full collections of Geraniums, Cinerarias, Verbenas, &c., are grown. At the time of visiting it (August) a good collection of Fuchsias was in full bloom, and amongst them all the new varieties. Pansies are well grown here, and largely, Messrs. D. and L. having been the raisers of several varieties, and have more to send out this season. A good collection of Phloxes was in full bloom; also a very pretty seedling Delphinium, something in the way of Hendersoni, which they intend introducing. We also observed their yellow Dahlia, —Mrs. Ferguson, colour deep and good, but too low in the centre. But a short distance from here is

MR. R. M. STARK'S NURSERY, AT EDGE HILL,

where soft-wooded plants also are cultivated largely. Mr. Stark has an extensive collection of hardy Ferns and Alpines, containing many rare species, and is well known for his attachment to botanical pursuits. A general collection of plants is grown and we understand that florists' flowers are to be made an especial feature here. Not far from this is the renowned

COMLEY BANK NURSERY,

now in the occupation of Messrs. Cunningham, Fraser, and Co., but made celebrated by that extraordinary man, the late Mr. Cunningham, who, until a few years past, was to be regularly seen moving about the country, regarding carpet bags and other travelling paraphernalia with supreme contempt. Well do we recollect him, with hands in pocket, quietly stating his price in so many half-crowns. It is a most extensive nursery, with very long ranges of glass in a somewhat dilapidated condition, erected expressly for the culture of new shrubs, &c. We well remember seeing young *Garrya elliptica*, at the time that plant was first introduced, together with *Magnolia Soulangeana* and *M. conspicua*, and such like shrubs, received from his establishment with all the vigour and freshness of Willows, and how soon they drooped and decayed. "Why is it?" we constantly asked ourselves; and on visiting his nursery a few years ago we found that throughout the houses generally a moist humid atmosphere was kept up to promote rapid growth in

these things. A large collection of choice shrubs, &c., is to be found here.—A hurried trip through the leading nurseries in Scotland showed us Dahlias in rather better condition than the plants in the south of England. The plants were vigorous and forward, and seem to have suffered less from fly and cold winds; still the *culture* in many places was not so good as we could wish. In the cases we allude to, greater room is required, more attention to tying out, thinning, and mulching, as well as shading. It is quite impossible to see the Dahlia in proper character unless these matters are attended to.

BOTANIC GARDEN.

Returning from Messrs. James Dickson's nursery, towards Edinburgh, we reach the Botanic Garden, so well known as the field of the late Mr. Macnab's successful experiments in plant culture, and now under the superintendence of his son, Mr. James Macnab. A large collection of plants, ornamental and useful, is cultivated in the various houses belonging to the establishment; these are all in excellent condition, and comprise many rare and valuable kinds. The select collection of Palms, &c., includes some of the finest specimens in Britain; at present they are much cramped for room, but as the Commissioners of Public Works have obtained a grant for building a suitable erection for them, we may expect, under Mr. Macnab's able management, to see full justice done this magnificent tribe when they get into their new quarters, which, however, it will take some time to complete.

In the grounds, which include a number of acres, are very complete collections of hardy shrubs, herbaceous plants, Grasses, &c., botanically arranged. The arrangement of the walks, however, does not seem the best that might have been devised, being all of one width, and unnecessarily turned and twisted about without producing anything like effect; nor yet is the way in which the plants are labelled at all satisfactory for a botanic garden, as fuller information of every plant, in bold legible characters, appears to us to be wanting. We saw another practice which, we think, subversive of good taste,—that of cutting in, with the shears or knife, the shrubs planted in front of the range of houses and other part of the grounds. If they are getting too large for the space they occupy, by all means remove some of them; but to cut into round lumpish figures fine specimens of evergreens, which is here done generally as a practice, not only entirely destroys all the characteristics of the plants themselves, so essential in a botanical point of view, but is a piece of bad taste which has not a single feature to recommend it. The Museum, although only recently established, bids fair to become one of the most interesting features of the place, and is in every respect worthy of the establishment. We next come to the

EXPERIMENTAL GARDEN.

This, which is now under the management of Mr. Evans, appears to be a most useful establishment. We found everything in the best of order, and as it combines the useful with the ornamental, it is not only a good school for the "practical," but the "theorist" and men of taste will find very much here to admire; an air of neatness and good management pervades the whole place. The clumps of bedding plants at each end

of the lawn were richly in bloom (for which, in a great measure, our friends in the north are indebted to the softness of their climate), and the arrangement of colour was all that could be desired. The houses contain the usual popular flowering plants of the day,—clean, healthy, and full of bloom.

The different modes of culture, including the training and pruning of fruit trees, are here carried on extensively, from which important practical results may be attained; altogether this is one of the most useful institutions we have seen, and reflects the greatest credit on Mr. Evans and all concerned in its management.

NORTH OF ENGLAND SEEDLING SOCIETY.

WE have received a circular from Bolton respecting the above Society, which is formed for the same purpose as the National Floricultural Society—encouraging the raising of seedling flowers, and pronouncing judgment upon them. The field of operations will, of course, be the northern counties. Most sincerely do we wish it every success in its sphere of usefulness, and glad shall we be to hear of its doings, and encourage it, if it will accept encouragement at our hands. Such societies are much needed, and, if worked out in a proper spirit, will succeed, and do much good. We gladly give an extract from the circular, to show the objects of the Society. The committee state that “with regard to the objects of the Society, it may be remarked that the raising of new flowers is perhaps one of the most pleasing and interesting pursuits that can occupy the attention either of the amateur florist, or the professional gardener. Hitherto the north of England has been indebted mainly to the metropolis, or at least to residents in the south, for their new plants. It is true the climate of the north is not so favourable to the raising of new varieties; yet when we call to mind the great number of first-rate flowers (which might easily be enumerated), standing at the head of their class, raised in the uncongenial north, we need not despair, that, if proper incentives are held out, specimens of the highest character may be produced, which will vie with those raised in the more favoured south.”

We, however, much regret to find our friends in the north labouring under an erroneous impression regarding the principal metropolitan tribunal for seedling florist flowers. We allude to the National Floricultural Society—for *that* is the Society alluded to in their circular, from which we take the following extract:—

“With respect to the censorship, which the Society, by its Judges, intends to assume, the necessity of such a step will at once be acknowledged by those who refer to the many worthless varieties of flowers which have been imposed upon the public by interested, and, we think it not too much to say, unprincipled dealers. The system of playing into each other’s hands, by granting *certificates of merit to each other’s productions*, deserves universal exposure, and the severest reprobation. The Society intends meeting this tricky system boldly, and will endeavour

to prove itself the safeguard and the powerful protector of the professional gardener and the amateur florist. The promoters of the Society are not far from the truth when they say that thousands have been completely victimised by this system of knavery, having to pay monstrous prices for their new plants, whilst, in the majority of cases, the purchasers have the mortification of finding them of the most contemptible character, illustrating, in their miserable development, the baseness of those who palmed them upon the public."

We are aware that the greater portion of our readers has not met with some obscure publications in which a writer, smarting under the severity of disappointed ambition, aiming, as he always has, at absolute dictatorship, and finding that honest men will not act with him, has libelled and abused the National Floricultural Society for no other reason than that the society will not admit him as a member. All that he has said has been felt to be harmless; but when a society boldly adopts such visionary ideas—even to the words themselves—and becomes a willing participator in the libel, we gladly assure that society that all its fears are groundless, and that it need not consider the National Floricultural Society such a monster of iniquity. We rather pride ourselves upon our integrity and good name, and would not on any account peril them by aiding any project or object not based on honourable principles; and so long as the National Floricultural Society continues to exercise its functions in the same honourable manner it has hitherto done, so long shall we support it. If our northern friends doubt the truth of our assertion, let them come to the society's meetings and judge for themselves.

BRIGHTON AND SUSSEX FLORICULTURAL AND HORTICULTURAL SOCIETY, SEPT. 13 AND 14.

THE last show of the season, and the fourth since the establishment of this Society, took place as above, and was in every respect worthy of its predecessors. In addition to its being the finest autumn exhibition of plants, fruits, &c., we have ever seen, it was unquestionably *the* Dahlia show of the season, with which we will commence our report.

The principal prize for Dahlias was a handsome Silver Cup, given by the Brighton Railway Company, for the best twenty-four Dahlias, to be competed for by private growers only. This was awarded to the Rev. C. Fellowes, Shottisham, Norwich, for one of the finest stands of flowers we ever remember to have seen exhibited by an amateur grower. They consisted of the following varieties:—Miss Caroline, Duchess of Kent, Rachel Rawlings, Pre-eminent, Robert Bruce, Mrs. Seldon, Glenlyon, Sir R. Whittington, Queen Victoria, Diadem, Mr. Seldon, Duke of Wellington, Bishop of Hereford, Golden Eagle, Amazon, Malvina, Ringleader, Queen of Beauties, Lilac King, Harbinger, The Nigger, Annie Salter, Queen of Whites, Cossack. The second prize of five pounds was awarded to G. Holmes, Esq., Brook Lodge, near Norwich, for twenty-four finely grown flowers, only second to the first collection

in variety; these were Golden Eagle, Mr. Seldon, Rose of England, Indispensable, Seraph, Edmund Foster, Triumphant, Rachel Rawlings, Model, Duke of Wellington, G. Villiers, Robert Bruce, Amazon, Bob, Halo, Sir C. Napier, Lollipop, Sir R. Whittington, Susan, Ringleader, R. Cobden, Lilac King, Bishop of Hereford, and Sir J. Franklin; 3rd, Mr. J. S. Prockter, Bermondsey; 4th, Mr. J. Robinson, Pimlico. For twelve blooms Mr. Fellowes was again successful in obtaining the first prize, with Queen Victoria, Sir C. Napier, Miss Caroline, Rachel Rawlings, The Nigger, Edmund Foster, Pre-eminent, Cossack, Diadem, Golden Eagle, Mrs. Seldon, Robert Bruce; 2nd, J. Sladden, Esq., Ash, with Beauty of Thanet, Annie Salter, Mrs. Seldon, Fanny Keynes, Fearless, Miss Caroline, Mr. Seldon, General Faucher, Triumphant, Duchess of Kent, Bob, and Amazon; 3rd, Mr. G. Holmes; 4th, Mr. J. S. Prockter. Fancy Varieties, twelve blooms, 1st, Rev. C. Fellowes, with Duchess of Kent, Claudia, Unanimity, Lady Grenville, Marvel, Elizabeth, Mrs. Hansard, Attraction, Flower of the Day, Flora M'IVor, and Topsy; 2nd, Mr. J. S. Prockter, with Flora M'IVor, Laura Lavington, Princess Charlotte, Mrs. Hansard, Duchess of Kent, Reine des Fleurs, Miss Compton, Gloire de Kain, Spectabilis, Queen of Fancies, and Elizabeth; 3rd, Mr. Robinson; 4th, Mr. J. C. Perry. Six New Varieties: 1st, J. Sladden, Esq., with King of Yellows, Mrs. Rawlings, Primrose Perfection, Fanny Keynes, Indispensable, Rosea elegans; 2nd, Mr. J. S. Prockter, Indispensable, Rachel Rawlings, Primrose Perfection, Lady Mary Labouchere, Beauty of Slough, and Mrs. Rawlings; 3rd, Mr. J. C. Perry, Birmingham. Classes open to all England, twenty-four blooms: 1st, Mr. C. Turner, Royal Nursery, Slough, with Mr. Seldon, Mrs. Seldon, Miss Caroline, R. Bruce, Malvina, George Glenny, Essex Triumph, Queen of Whites, Annie Salter, Sir C. Napier, Lilac King, Sulphurea elegans, R. Cobden, Dhawala Giri, Rachel Rawlings, Miss Spears, Sir F. Bathurst, Amazon, Ringleader, Alice, Bob, Whittington, Sir J. Franklin, and Espartero; 2nd, Mr. J. Keynes, Salisbury, with Negro, Rachel Rawlings, George Glenny, Brilliant, Annie Salter, Edward Harrison, Malvina, Susan Sainsbury, Amazon, Ruby Queen, Sir F. Bathurst, Primrose Perfection, Robert Bruce, Red Gauntlet, Plantagenet, Morning Star, Whittington, Fearless, Miss Caroline, Richard Cobden, Ariel, Sir C. Napier, Mrs. Ferguson, and Triumphant; 3rd, Mr. W. C. Drummond, Bath; 4th, Mr. Legge, Edmonton. Eighteen Fancy Varieties: 1st, Mr. Keynes, with Emperor de Maroc, Duc de Brabant, Triomphe de Raubaix, Topsy, Phaeton, Reine des Fleurs, Miss Herbert, Butterfly, Princess Charlotte, Seedling, Jonas, Abbé Boquillon, Mrs. James, Claude, Gloire de Kain, Lady Grenville, Syren, and Miss Blackmore; 2nd, Mr. Turner, with Princess Charlotte, Didon, Unanimity, Reine des Fleurs, Triomphe de Roubaix, Mrs. Willis, Laura Lavington, Empereur de Maroc, Le Paon, Miss Weyland, Attraction, Elizabeth, Admiration, Duchess of Kent, Phaeton, Gloire de Kain, Pigeon, and Marvel; 3rd, Mr. Legge; 4th, Mr. Mitchell, Piltdown.

Of seedling Dahlias there was a good display. First class Certificates were awarded to Pre-eminent (Fellowes's), a rich full sized deep purple, with close centre, very deep, and first-rate

in every respect; Lord Bath (Wheeler's), dark maroon: this is also a large flower, very full, constant, and of good form; Bessy (Drummond's), yellow: a full promising flower, with fine outline; Miss Frampton (Rawlings'), a first class fancy variety, described by us in the report of the National Floricultural Society; and Baron Alderson (Perry's), bright orange, with a small distinct white tip on each petal: large, full, and very dissimilar to varieties already out. The judges also highly commended the following, but the flowers were not in a condition to receive certificates, yet possessed first-rate properties, viz:—Beauty of Bath, deep yellow; Espartero, crimson; and Annie, lilac. The following were also shown very good:—The Nigger (Fellowes's), black; Diadem (Fellowes's), dark maroon; Ruby Queen (Keynes's), bright ruby rose; and Empress (Prockter's), white, tinged with rosy lilac.

The display of Roses by Mr. Mitchell, of Piltdown, near Maresfield, was most extraordinary for the season, equalling in size and brilliancy our finest summer Roses in June and July, and in the greatest variety. In addition to the twenty-four varieties with which Mr. Mitchell obtained the first prize, an extra prize was awarded to the same grower for 100 bunches in varieties, which is a very large number for this season, yet they were all in the finest condition. We give the names of some of the finest kinds:—Hybrid Perpetuals: Auguste Mié, Alexandrine Bachmeteff, Baronne de Heckeren, Baronne de Kelmont, Baronne Hallez, Capt. John Franklin, Caroline de Sansal, Chateaubriand, Dr. Julliard, Duchess of Sutherland, Eugene Sue, Gloire de France, Géant des Batailles, Gen. Castellane, Jules Margottin, Joseph Decaisne, Lady Shelley, Lady Stuart, Laura Ramand, Louise Peronney, Leon des Combats, L'Enfant du Mont Carmel, La Reine, Madame Domage, Madame Rivers, Madame Phelip, Madame de Manvel, Madame Audris, Madame Hilaire, Madame Ducher, Madame Siegneur, Madame Lamoricière, Paul Dupuy, Prince Leon, Queen Victoria, Souvenir de Leveson Gower, St. Jean, Souvenir de la Peine des Belges, William Griffiths. Bourbons: Acidalie, Souvenir de la Malmaison, and Vorace.

It was getting late for Hollyhocks; the collections, however, from Messrs. Chater and Paul, were very good. Mr. Chater, of Saffron Walden, was first, with the following twelve varieties, in spikes:—Rosy Circle, Sulphur Queen, Hon. Mrs. Ashley, Lilac Model, Spectabilis, Walden Gem, Ovid, Mulberry superb, Pourpre de Tyre, Meteor, Lady C. Neville, and Souvenir; 2nd, Messrs. Paul and Son. Hollyhocks, twenty-four cut blooms: 1st, Mr. Chater, with Triumphant, Comet, Spectabilis, Black Prince, Eva, Walden Rival, Walden Gem, White Perfection, Pourpre de Tyre, Sulphur Queen, Lady C. Neville, Joan of Arc, Delicata, Lilac Model, Seedling No. 1, Meteor, Queen, Mulberry superb, Rosea grandiflora, Seedling No. 2, Sir D. Wedderburn, Shaded Model, Safranot, and Napoleon; 2nd, Messrs. Paul. The Hollyhocks exhibited in the Amateur Class were very indifferent and not worthy of any attention. For Miscellaneous subjects a great many prizes, open to all England, were offered, and as will be seen by the awards, many distant competitors were brought together. We give

only the principal awards. Orchids (8 vars.): 1st, Messrs. Rollisson and Son, Tooting; 2nd, Mr. Cameron, gardener to the Duke of Richmond. Stove and Greenhouse Plants (8 vars.): 1st, Messrs. Fraser, Leyton, Essex; 2nd, Messrs. Rollisson and Son, Tooting; 3rd, Mr. Peed, Norwood; 4th, Mr. Hamp, gardener to J. Thorne, Esq., Lambeth. Ericas (6 vars.): 1st, Messrs. Rollisson and Son, Tooting; 2nd, Mr. Young, Dulwich; 3rd, Messrs. Fraser, Leyton, Essex. Fuchsias (8 vars.): 1st, Mr. G. Parsons, Brighton; 2nd, Messrs. Fraser, Leyton, Essex. Geraniums, scarlet (4 vars.): 1st, Mr. J. Dobie, florist, Brighton; 2nd, Mr. G. Parsons, Brighton; 3rd, Mr. Drover, gardener to Colonel Rotton, Chichester. Achimenes (6 vars.): 1st, Mr. Hudson, gardener to F. Barchard, Esq., Horsted Place; 2nd, Mr. G. Parsons, florist, Brighton. Lilliums (4 vars.): 1st, Messrs. Fraser, Leyton, Essex. Verbenas (4 vars.): 1st, Mr. Spary; 2nd, Mr. Miles, gardener to C. S. Hannington, Esq., Hurst; 3d, Mr. Evans, gardener to H. W. Freeland, Esq., Chichester. Balsams (4 vars.): 1st, Mr. Jupp, gardener to John Oliver Smith, Esq., Richmond Lodge, Brighton; 2nd, Mr. Atkins, gardener to Lord Viscount Gage, Firlie; 3rd, Mr. Dobie, florist, Brighton. Specimen plant: 1st, Messrs. Rollisson and Son, Tooting; 2nd, Mr. Hamp; 3rd, Mr. G. Parsons, florist, Brighton; 4th, Mr. Drover. Verbenas (24 vars., in bunches): 1st, Mr. Judd, gardener to C. P. Lochner, Esq., London; 2nd, Mr. Smith, Tollington Nursery, Islington; 3rd, Mr. G. Atkins; 4th, Mr. Syred, nurseryman, Red Hill. Asters (24 vars.), 1st, Mr. G. Parsons, Brighton; 2nd, Mr. Dobie, florist, Brighton; 3d, Messrs. Fraser, Leyton, Essex; 4th, Mr. Chater, Saffron Walden. Cut Flowers (24 vars., in bunches): 1st, Messrs. Rollisson and Son, Tooting; 2nd, Messrs. Fraser, Leyton, Essex; 3rd, Mr. G. Parsons, Brighton; 4th, Mr. Young, Dulwich. Devices: 1st, Mr. Hobden, gardener to T. Attree, Esq., Park, Brighton; 2nd, Mr. Keynes, Salisbury; 3rd, Mr. Godley, gardener, Hurst.

FRUITS.—Collection (8 dishes), 1st, Mr. M'Ewen, gardener to the Duke of Norfolk; 2nd, Mr. Peed, Norwood; 3rd, Mr. J. A. Watson, Ealing; 4th, Mr. Lee, Mordon Nursery, Surrey. Pine-apple (any sort), 1st, Mr. Peed; 2nd, Mr. J. A. Watson; 3rd, Mr. M'Ewen; 4th, Mr. Cameron. Grapes (black, 3 bunches): 1st, Mr. Dobie; 2nd, Mr. J. Lipscomb, gardener to G. Bentham, Esq., Dover; 3rd, Mr. D. McEwen, gardener to Col. Wyndham, Petworth; 4th, Mr. R. Goldsmith, gardener to A. Pelly, Esq., Slaugham. White (3 bunches): 1st, Messrs. Mitchell and Co., Brighton; 2nd, Mr. E. Nichols, gardener to Sir I. Goldsmid, Hove; 3rd, Mr. Lipscomb; 4th, Mr. J. Miles. Melon (for flavour): 1st, Mr. Holman, gardener to the Earl of Chichester, Stanmer Park; 2nd, Mr. Knight, gardener to Dr. Holman, Hurst; 3rd, Mr. McEwen. Peaches (6 fruit): 1st, Mr. Cameron; 2nd, Mr. Atkins; 3rd, Mr. D. McEwen. Nectarines (6 fruit): 1st, Mr. D. McEwen; 2nd, Mr. Atkins; 3rd, Mr. Watson. Pears (dessert, 12 fruit): 1st, Mr. Nichols; 2nd, Mr. Holman; 3rd, Mr. Drover. Apples (dessert, 12 fruit): 1st, Mr. Holman; 2nd, Mr. McEwen; 3rd, Mr. Watson. Culinary (12 fruit): 1st, Mr. Holman; 2nd, — Knapton, Esq., London Road, Brighton; 3rd, Mr. Knight. Plums (12

fruit): 1st, Mr. Gadd, Castle Goring; 2nd, Mr. D. McEwen; 3rd, Mr. Holman. Greengages (12 fruit): 1st, Mr. Nichols; 2nd, Mr. D. McEwen; 3rd, Mr. Fowler, gardener to Mrs. Wood, Henfield. The fruit, generally, was very fine.

We cannot close our report without complimenting Messrs. Spary, Carpenter, and Stocken, and the committee, on the completeness of their arrangements respecting the exhibition. The judges were, for plants and flowers, Mr. J. Ivison, of Sion House, and Mr. J. A. Watson, Ealing. Fruit, Mr. R. Thompson, Chiswick, Mr. J. Keynes, Salisbury, and Mr. Thompson, Ealing. For amateurs' Dahlias, Mr. C. Turner, Mr. C. P. Lochner, Paddington, and Mr. Mitchell, Piltown.

THE PANSY.

IF I was asked which of the florists' flowers I considered the most popular, I would answer, the Pansy. It may be found in the parterre of the nobleman, or the small flower plot of the cottager—in all parts of the empire, in the north as well as in the south. There is, perhaps, no other flower which has so repaid the labour of the florist. A few years ago it was a mere weed: now it is one of the most beautiful flowers we possess. If we compare the drawings of those which four or five years ago we considered gems with some we now have, we immediately see the immense improvements that have been made; so much so, that when flowers such as these old gems appear now in our seedling beds they are tossed aside as useless. For some time I have paid great attention to its culture, and have been pretty successful in competition; and if my method of cultivation should be of service to any of the readers of the *Florist*, and induce them to try it, I hope they will derive as much pleasure from so doing as I myself have done.

The Pansy, I consider, is at its best during the last two weeks of May and the first two weeks of June. It is for this reason that the principal Pansy shows are held during that period. The great object of the cultivator is to have his flowers in the highest state of perfection possible that can be had most easily and best at that period when the flower is naturally at its best. No doubt good blooms of Pansies may be had at almost any period from April to October, but there are many fine sorts, particularly belted ones, which during the height of summer entirely lose their true character, which scarcely any amount of cultivation can avoid: instance that fine old variety the Duke of Norfolk. As my principal object is to have my Pansies in condition during May and June, I will first detail my method of doing so as minutely and as plainly as I can.

During July and August I take my cuttings, selecting young side shoots $1\frac{1}{2}$ to 2 inches long. These I find always root soonest, and make the best plants. In many cases they can be got almost ready rooted, when they proceed from the parent stem at a little below the surface of the soil. It is a good plan, when many cuttings are wanted, to earth the main plants well up, thereby causing many of the side shoots to become ready rooted, or if not so they will very soon root after being put out.

My cuttings I put into a bed in the open border, attending to them well with water in the absence of rain. I shade until I see that they can bear sunshine without flagging; after that all the attention they require until potting time is to keep them clear of weeds, and have the soil stirred up occasionally.

I never use a hand glass in striking. The soil I find they luxuriate in is the top spit of a meadow, full of fibre, laid up in a heap for a considerable time, and well chopped over. To five parts of this I put one part leaf-mould, and one part well rotted cow-dung, adding a little sand to keep it open.

About the end of September I pot into 4-inch pots, putting plenty of crocks at the bottom of each pot for drainage. I then place them in a cold frame facing south, well up to the glass. When properly established in their pots, I give all the air possible, taking off the lights entirely in fine weather. In this manner I keep them over the winter, the only attention they require being to water well when dry (of course choosing moderately fine days for so doing), to throw a mat over the frame in severe frosts, and to give all the air possible in fine weather.

About the beginning of February I repot into 8-inch pots, without shaking the soil from their roots, but taking care to remove the surface and what has been next the pot. I again put in plenty of crocks for drainage, and use the same soil as previously, which has been well turned over and exposed to frost during winter. After repotting I place them again in the frame, close up to the glass, and keep turning them round at intervals, so that the plants grow dwarf and equal, always remembering to give air on all possible occasions; in fine weather I remove the sashes entirely during the height of the day.

Those plants I wish to grow as specimens I tie out the side shoots to the sides, to pieces of wire with loops made by twisting them about two inches apart. These I fix underneath the rims of the pots. From plants from which I wish to take blooms for exhibition I remove most of the side shoots; some of them I grow to a single stem, some to two stems, but never more than three, according to the strength and nature of the plant. By the middle of April they become good plants, and many of them begin to show flowers. These I pick off until about three weeks before exhibition day, thereby throwing all growth into the plant. I now supply them liberally with well diluted liquid manure. I prefer sheep and cow-dung in the proportion of one peck of each to twenty-five gallons of water. This has the effect of increasing the size and brilliancy of the blooms.

As the blooms intended for exhibition begin to open, I draw a thin calico blind over the sashes during sunshine, and remove it immediately the sun is off. Pansy plants are very liable to become drawn if shaded for any length of time, therefore that must be avoided as far as possible. There is no occasion for any more shading than merely to keep sunshine from the blooms intended for exhibition.

If any blooms arrive at full perfection within three days of exhibition day, I take them off and keep them in water, taking care to change it frequently, and to shelter from dust, &c. I find they can be preserved in that manner in better condition than by being allowed to remain on the plant.

Little now remains to be done except to arrange the blooms on their stands. A little care here also is required. A fair proportion of each class ought to be put in; for instance, in a stand of twelve blooms there should be three white grounds, three yellow do., and three selfs; the white and yellow grounds ought to be broad and narrow belted, the selfs may be one yellow, one white, and one dark. The proper proportion of classes is very often, and ought always to be, taken into account by the judges; they ought also to be contrasted in the stands as much as possible, so that the dark flowers may give better effect to the light ones, and *vice versa*. To have a continuance of bloom during summer, plants should be put in the beginning of May and also in June. The side shoots taken off in April may be used for this purpose.

The Pansy requires a good fresh loamy soil, and if the border is not naturally so, it ought to be improved by the introduction of good loam and well decayed dung. The best method, where it can be adopted, is to remove entirely eighteen inches from the border and make it up again with compost similar to that recommended for potting, or, what I have tried this season with excellent effect, thoroughly decayed rack, to which may be added a good quantity of decayed dung. If a situation shaded from the mid-day sun can be had, so much the better.

Attention similar to what is recommended above for pot plants must also be paid to these, so far as circumstances allow. For shading and protecting from dashing rains, small hand-glasses are useful. The plants must not be allowed to grow too bushy; three main stems are quite sufficient, if good sized blooms are wanted. Frequent applications of liquid manure will be found to benefit these also.

Without doubt the system of cultivating Pansies in pots for spring blooming has immense advantages over that in the open border, and I would earnestly recommend all who have any wish to succeed at the spring exhibitions to adopt it. The grower in pots is entirely independent of his garden soil, if unsuitable, in a great degree of situation, and of weather. It is very disheartening after the attention of months in preparing for an exhibition to find that by a deluge of rain all hopes of successful competition are blasted. In frame culture the plants are safe from rain, wind, and weather. In conclusion I subjoin a list of thirty varieties, which I know are really good, having grown most of them, and had opportunities of seeing the remainder in bloom. Intending purchasers may select from it with confidence:—

DARK SELFS.

Mesmerist . . .	Veitch	Flower of the Day	Downie and Laird
Medora . . .	Downie and Laird	Aunt Chloe . . .	Douglas
St. Andrews . . .	„		

YELLOW SELFS.

Sovereign . . .	Dickson and Co.	Yellow Climax . . .	Downie and Laird
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WHITE SELFS.

Royal White		Mr. H. B. Douglas	Downie and Laird
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WHITE GROUNDS (BELTED).

Beauty . . .	Downie and Laird	Minerva . . .	Dickson and Co.
Royal Standard . . .	Dickson and Co.	Earl of Mansfield . . .	„
Royal Visit . . .	„	Ellen . . .	Douglas
Miriam . . .	„	National . . .	Turner
Miss Talbot . . .	„		

YELLOW GROUNDS (BELTED).

Gliff . . .	Dickson and Co.	Fearless . . .	Schofield
Emperor . . .	Hale	Diadem . . .	Hunt
Monarch . . .	"	Pandora . . .	"
Charles Turner . . .	"	Duke of Norfolk . . .	Bell
Victory . . .	"	Sir J. Cathcart . . .	Turner
Father Gavazzi . . .	Holland	Lady Emily . . .	Shearer

DELTA.

CYCLAMENS.

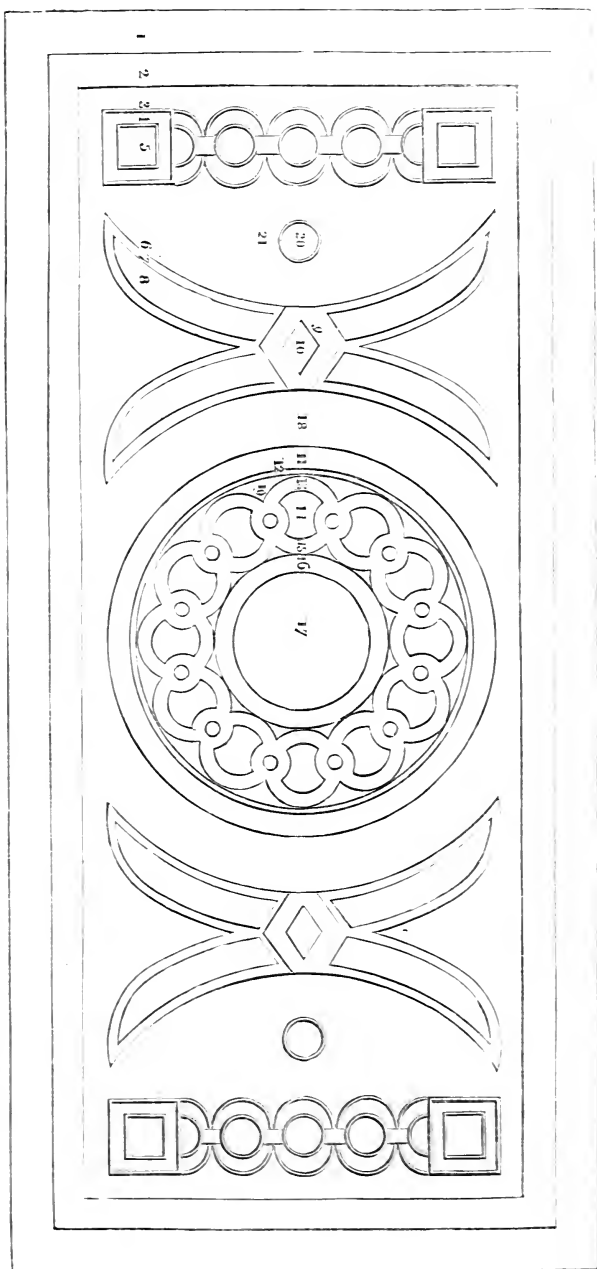
HAVING cultivated *Cyclamen persicum* most successfully, and thinking that some of your readers might be interested with a few hints on its culture, I have forwarded the following.

About the end of January the leaves begin to push, at which time I remove the plants from a cold frame to a warm shelf in a greenhouse, giving them a moderate supply of water until such time as the buds begin to "show up," which will generally be the case in about four or five weeks. As soon as the plants are in bloom I supply them with liquid manure from the pig yard, clarifying it with lime previous to using it, and gradually increasing its strength until such time as the whole of the flowers shall have been developed. As soon as the plants have finished blooming I remove them to a cold frame, where they remain until the beginning of June. I then prepare a border in a shady situation, working into it a quantity of decayed leaves and vegetable matter, and I turn the plants out of the pots into it, covering them the first few days with hand-lights. During the summer it is found necessary to water them occasionally, to prevent the bulbs from shrivelling. In the beginning of September I take them up carefully, and pot them in equal portions of turfy peat and well rotted cow-dung, with a free sprinkling of sand. Treated in this way they quite repay any additional attention they may receive, and they will enliven the conservatory with their beauty throughout the months of March and April. J. S.

ROYAL BOTANIC SOCIETY'S GARDEN.

IN addition to its alteration in the mode of arranging plants at its great exhibitions, this Society has also added to its beautiful grounds a few new features of interest. One of these has been the converting the ground formerly occupied by the large tent, in which the stove and greenhouse plants used to be shown, into a small flower-garden laid out in different devices of small beds, bordered with Box and gravel, the whole being on Grass, and surrounded by raised straight gravel walks. One of the prettiest of these devices is represented by the annexed wood-cut, which we have thought might be useful for those who may have to lay out small pieces of Grass in the vicinity of buildings, or other suitable positions, in beds for flowers.

PLAN OF FLOWER BEDS IN THE ROYAL BOTANIC GARDENS.



1. Grass Verge.
2. 18 inch fall.

3, 4, 7, 11, 13, 15, and 16, Walks.
9, 10, 11, 12, 13, 14, and 15, Beds.

17, 18, 19, and 20, Box Edging.
21, 17, and 18, Grass.

MAIDSTONE, NEWBURY, HEREFORD, AND SLOUGH EXHIBITIONS.

It will doubtless prove of interest to your general body of subscribers, to learn that Horticultural Societies not only abound, but that they flourish in proportion to the extent of the energy bestowed upon their management. It was my duty in responding to the invitations of the four societies heading this notice, to attend at their exhibitions, during the past month, as Censor, and within two or three days of each other; and I therefore venture to offer a few brief remarks, in reference to them comparatively.

At Maidstone and Hereford, the usual classes of Miscellaneous plants were infinitely superior to their compeers. At the former Mr. Frost, gardener at Preston Hall; and at the latter, Mr. Cox, gardener to Earl Beauchamp; both staging collections of plants of the highest order.

Newbury beat Slough for Fuchsias, and the former easily obtained the palm for Verbenas, over the other three. Roses at Hereford and Maidstone were a new thing; Messrs. Cranstone and Davidson, at the former place, and Mr. Mitchell, of Piltown, and Mr. Epps, showing at the latter. The four collections of these growers were worth the journeys to inspect. Of Roses, at Newbury, the Messrs. Paul made a pretty display, as did Messrs. Wilkinson and Turner, at Slough; but were all far from being a match against the Maidstone and Hereford displays. Hollyhocks were better done at Newbury, by Messrs. Paul, 1st; Messrs. Chater and Turner being equal for 2nd. With this flower Maidstone is far in the rear, and must bestir itself. Dahlias were, of course, the best and most numerous at Slough; they were very fine at Hereford; moderately so at Maidstone; and bad at Newbury. To Maidstone belongs by far the best fruits (excepting the collection from the Royal Gardens, exhibited at Slough), vegetables and cottagers' productions; and they are not only the best, but also the most numerous. I never remember to have seen a more interesting exhibition of potatoes alone, as there were some fifty competitors. I will not put into juxtaposition the several managements, simply because all did so well; and I will here (with permission,) thank them, one and all, for the many kindnesses, considerate attentions, and cordial receptions received at their several hands.

JOHN EDWARDS.

NOTES FROM KEW.

HEINTZIA TIGRINA is a succulent evergreen hothouse plant from Caraccas, belonging to the Gesnerads. Mostly all the species constituting Gesnerads, of which there are many at present in cultivation, are well deserving some better attention than is frequently given to them, producing, as they usually do, very handsome rich coloured flowers, and with a little management one or other of them may be had in flower most of the year throughout. The present member is of recent introduction to our gardens, but, similar to most others of this family, it requires a good state of cultivation to develop its real

character; under such treatment it becomes very effective, and may be viewed as a good addition to collections of succulent stove plants. It is of an erect habit, sparingly branched, attaining the height of three feet or more, flowering both summer and winter; the branches are red and downy, with large opposite leaves; the flowers are axillary, on simple peduncles two inches long; calyx very large, pale yellowish green tinged with red; corolla white, very woolly on the outside, and thickly covered with large spots on the inside, which are of a rosy purple colour. A similar treatment to that given to *Gesneras* is most suitable for it,—a light moderately rich compost and a close humid atmosphere while growing; young plants of it, when grown quickly flower in far greater profusion than older ones producing much larger flowers. A young plant of it here, nearly eighteen inches high, in a small stove, is producing abundance of its very conspicuous-looking flowers.

BEGONIA HÆMATOTRICHA. Several additions to this already very extensive and useful tribe have recently been made from the continent, amongst which probably some of them may merit cultivation. The present one is a slender growing and much branching kind, easily forming a specimen a foot or two high. The leaves are of a pale green, very moderate sized, scarcely exceeding two inches long, and scattered over, chiefly on the upper surface, with pink hairs; the flowers are small, white, and not attractive. Other species cultivated here, received from the same source, have not yet flowered.

CLEMATIS GRAVEOLENS. This is a rather pretty flowering hardy plant, from Thibet. Where large growing species of this genus are cultivated, the present one will be found a good addition to them, as it is of robust growth, twelve to twenty feet high, and well adapted for covering high walls, or to climb up trees, &c. It is a rather neat looking kind, with its leaves a little glaucous on both sides, and yellow flowers about an inch across. A large specimen of it here, against an east wall, is now in full flower.

CLEMATIS HEDYSARIFOLIA. One of the most distinct of this genus, and although introduced more than thirty years ago, is at present far from being common. It is a desirable plant for cultivation, on account of its handsome foliage. It is an evergreen greenhouse species, with climbing stems 12—15 feet long, bearing ternate leaves; each leaf is 4—5 inches long, and an inch to an inch and a half wide, thick in texture, of a bright shining green, and tapering from the base to the apex; the flowers are white, in panicles, and not very attractive. A plant of it, introduced here from Hong Kong about two years ago, is growing vigorously, trained against the end of one of the greenhouses, and is at present in flower.

CALCEOLARIA ERICOIDES. A beautiful little evergreen shrubby species; one of the neatest looking and most distinct among *Calceolarias*. In the absence of flowers it may easily be taken for an *Erica* or some species of *Diosma*, which it much resembles. It is a native of the Andes of Peru, at 13,000 feet elevation, consequently it is nearly hardy. Kept in a cold frame, as it is here, the stems are a foot to a foot and a half long, very slender, many of them being erect and others hanging gracefully over the pot; the leaves are very small, like those of a *Heath*; the flowers are large for the size of the plant, are of a sulphur yellow, and borne on the upper part of the stem. It was sent to Kew by Mr. Henderson, of Edinburgh, and is now flowering.

CALYCANTHUS OCCIDENTALIS. A fine large flowering species, useful for growing against a wall; it is quite hardy, a plant of it trained against an east wall here is ten feet high. It has good moderate-sized leaves and flowers, two inches or more across, very fragrant, and of a dull red colour.

J. HOULSTON.

CALENDAR FOR THE MONTH.

Auriculas. Keep them in a cool northern aspect for some time to come. See that the glass is in good order, that there may be no drip, and keep it clean also; give plenty of air, and but little water. Dead foliage and aphides should always be removed as soon as they appear.

Camellias and Azaleas. These should be placed in their winter quarters forthwith, if not already done. Let the drainage of the pots be examined before they are taken in, the pots clean washed, and the surface soil loosened, adding a little fresh compost when necessary. If the buds on the Camellias are too thickly set, thin them out to regular distances, three or four inches apart. Let the Azaleas be looked over, and any plants infested with thrips should be put into a close room or pit, and fumigated two or three times with tobacco, allowing them two days respite between each dose. Well syringe afterwards, and arrange them in their winter quarters.

Carnations and Picotees. Finish potting for wintering as soon as possible: all should be completed by the 20th of the month. Harden those that were first potted; they should not, however, be exposed to heavy rains. Keep all clean of dead foliage.

Cinerarias. Mildew is often troublesome at this season; dust the parts affected with sulphur as soon as it appears, both seedlings and named varieties. Those for exhibition, or to decorate the home stage, will, one and all, require a shift this month, using light rich soil. A cool pit or frame near the glass is the best situation for the Cineraria during the autumn months, to be removed to a pit or low greenhouse that has the means of keeping out the frost when winter fairly sets in.

Conservatory. Let the climbers of the roof, &c., be now gone over, cutting away any useless shoots which have done blooming; the remainder may be tied in a little closer, to admit more light to the plants beneath. Plants growing in the open borders should likewise be gone over, pruning in any straggling growths; large specimen plants, Orange trees, &c., which have been placed out for the summer, should now be brought in. Let the tubs, pots, &c., be well cleaned before this is done, and the drainage looked at. When finished, the whole of the inside borders, paths, &c., should be thoroughly cleaned. Give air in abundance in mild weather.

Cucumbers and Melons. Any late Melons still left to ripen should be encouraged by a little fire heat or the application of warm dung linings; the bottom heat, likewise, should not be allowed to decline. Hybrid Dampsha, and some other late Melons, will keep for a long time after being cut, if kept in a dry room. Cucumbers for winter bearing should be transferred to large pots or boxes plunged in bottom heat, which should be kept steady between 85° and 90°; the night temperature between 65° and 70°, with plenty of moisture. Plants in full bearing encourage by liquid manure.

Dahlias. Secure seed as soon as it can be procured ripe enough, and look over the collection to see that all are rightly named before disagreeable Jack Frost visits us, spoiling the appearance of our gardens.

It is to be hoped he will spare us for some time yet, the late bloom being much finer than the early, through the unfavourable weather during the early part of the season. Mark any promising seedlings for trial in 1855.

Forcing Houses. The period during which these houses have been at rest will have been employed in putting the roofs, &c., in a state of good repair, and seeing that the heating apparatus is in working order. The first house, of both Vines and Peaches, may be pruned at once. The sashes may be put on the early Vinery towards the end of the month, if very early Grapes are wanted. Keep late Grapes dry, by giving air night and day, putting on a little fire when the days are wet, to dry up damp. Vines and fruit trees in pots should now be placed to winter behind a north wall.

Flower Garden and Shrubbery. Pay a little extra attention to the lawn walks at this season; now that the beauty of the flower garden is on the wane, dead blooms and decayed leaves should be removed, and every means taken to keep up a gay appearance as long as possible. As most kinds of horse-shoe leaved Geraniums bloom better from plants preserved through the winter, all the best plants should be lifted on the approach of frost, their roots slightly cut in, and potted in small pots; keep them rather dry, and they will soon make fresh roots, and may then be wintered in a spare house or pit. The same may be done with any choice plants desirable to save for stock, or for planting out next season; these, as well as the scarlet Geraniums, should be put in a close house for a fortnight after potting, to start them at the root.

Hardy Fruits. Golden Drop and Imperatrice Plums on walls should be kept dry, to preserve them, or they may be gathered and kept for a long time, by laying them singly in a dry room. As soon as the leaves begin to fall, fruit trees of all kinds may be transplanted either to walls, espaliers, or orchard grounds, this being the best time for the purpose, besides giving you the pick of the nurseries; secure from high winds when planted, and mulch the surface. Pruning may take place towards the end of the month, with hardy and orchard fruits, particularly if summer pruning has been neglected.

Hollyhocks. Seed can now be procured in abundance, which should be gathered before the rains of autumn have damaged it. Continue to put in cuttings as they can be procured, and pot up the old stools of choice varieties for the purpose of propagation during the winter months.

Kitchen Garden. Attend to former directions; tie up Endive for blanching. Cauliflowers coming in the same, the leaves will protect the head from frost. Cauliflowers and Lettuces, plant out in a warm situation, on rich soil, for covering with hand-glasses or cloches. These latter are useful things for enabling you to have good salads through the winter; therefore place some over well established Lettuce plants towards the end of the month. Let the kitchen garden have a good cleaning before winter, removing everything which will give harbour to slugs and vermin. Still continue to hoe between advancing crops. Where Broccoli is growing too strong take it up and lay it in with the heads to the north; this will check its growth and preserve the heads from frost.

Mixed Greenhouse. The whole of the plants which have been standing out during the summer should at once be put into the house. To make room for a time a portion may be placed in a spare pit or frame, till the Liliiums, &c., have done blooming, when more room can be allowed them. Let the plants, pots, &c., be well cleaned before taking them in. Leave a little air on the house by night, for the first, to keep the plants hardy.

Orchids. The principal part of the stock will now be at rest. A few *Lælias*, *Cattleyas*, &c., which bloom at this season, should be placed in dry places, moderately warm, to prolong their beauty. Keep the East Indian species, which rarely cease growing for any length of time, in an atmosphere moderately humid, reducing the night temperature a few degrees. As some kinds put early to rest will show bloom at this season, they may be removed to a moister heat to bring them on, and afterwards placed in the driest part of the house to bloom.

Pansies. Now is the time for the general potting up from the store beds of the plants intended for blooming in pots, or to fill beds in March; give plenty of air, but not too much water; they can be effectually cleared of mildew if carefully dusted with sulphur before it has got too far ahead. Healthy cuttings put in now make excellent plants in a short time. Plant out seedlings for blooming, and gather seed from the finest autumn flowers for spring sowing.

Pelargoniums. Keep the houses dry, well aired, but not too cold: the stock will suffer if the houses are allowed to become cold and damp. Repot, stop, &c., as recommended last month. The plants should be encouraged to make good growth during October and November, but should rest during December. Neither large plants nor young stock should be crowded together, which is too often the case.

Pinks. Finish planting, if not already done, and pot up a few hundred pairs, to plant out in beds late in February, or early in March; they take but little room, winter well with certainty, and produce beautifully laced flowers, if properly attended to.

Pines. Plants swelling their fruit must be kept in a moist temperature. We do not care about much syringing, preferring to maintain it by evaporation. Do not allow the bottom heat to decline below 85°; the night temperature may be 60°. Plants required to fruit early will now be wintering, under the influence of a full exposure to light, and abundance of air; they should, besides, be kept rather dry at the root: this will ensure good stocky plants with well ripened leaves.

Tulips. If the beds have been prepared, as directed in previous numbers, plant about the 1st of November, choosing a very fine dry day. If the bulbs have not already been arranged, it should be done at once, before any of the bulbs begin to push.

Stove Plants. If our previous directions have been acted upon, the stock of young plants we have recommended to be grown for winter flowering will now be nice bushy stuff, and will include various sorts of *Justicias*, *Aphelandras*, *Eranthemums*, *Euphorbia splendens*, with *Gesneras*, *Allamandas*, &c. These should now be placed in the stove, and will in a few weeks commence blooming, and continue throughout the winter season.



Dipiadema

DIPLADENIA MAGNIFICA.

(PLATE 94.)

THIS fine plant was introduced to English gardens by Messrs. Veitch and Son, of Exeter and Chelsea, from a continental house, which had it from the Brazils. Beautiful as is the old and favourite *Dipladenia crassinoda*, this variety far exceeds it in the size of its flowers, the depth of its colours, and the most distinct and peculiar marbled appearance of its blossoms. It is, in fact, what its name designates it to be, a magnificent improvement on *D. crassinoda*.

As regards culture, we imagine few plants of a twining character will be found more suitable for pots than this charming *Dipladenia*. It does not grow too strongly, and under proper management it produces a profusion of large *Convolvulus*-shaped blossoms, which remain long in perfection. For the decoration of a conservatory or flower-house during summer and early autumn no more useful plant can be found; and if carefully removed to a cool temperature as soon as the blossoms expand, they will become higher coloured, and remain longer in beauty, than in a stove.

When young plants are received, after potting them, if they require it, let them be placed near the glass, in a gentle bottom-heat, with a moist warm atmosphere. Shade them from the mid-day sun, and keep them growing briskly till late in autumn. On the approach of winter gradually inure them to a cooler and drier atmosphere, in order to ripen their wood. While at rest afford them a light airy situation, where the temperature may range from 50° to 60°, and give very little water to the soil. The plants should now be strong and healthy, and in 7-inch pots; and if this is not the case, as possibly it may not be, they should be grown on another season in the nursery pit, for it is useless to think of producing a large handsome flowering specimen without a good strong healthy plant to commence with. As early in spring as a spare corner in a pit or house with a gentle bottom-heat and a moist warm atmosphere is at command, where the plants can be kept near the glass, turn them out of their pots, repair the drainage, and clear away all unkind soil, repotting in the same sized pots, and plunging in a bottom-heat of about 80° or 85°. Any sickly points that may happen to be on the shoots should be cut back to a plump bud, and weakly ones removed altogether, which will throw the sap into the stronger shoots, and those should be kept regularly tied, so as to expose the foliage to light, and induce the buds to break regularly. When growth commences regulate the shoots so as to induce the buds to break

regularly all over the plant, and as soon as active root action has been induced shift into the blooming pots. Apply the trellis at once, and keep the shoots regularly tied in as they advance in growth, bending the points of any gross ones downwards, which will equalise the growth and keep them sufficiently thin to admit light and air.

Plants, the pots of which are plunged in any warm moist material, require much less water than if the pots are exposed to a warm dry atmosphere; and as *Dipladenias* are very apt to suffer from excess of moisture at the root, water must be applied with care, especially in the case of recently potted specimens. To give a liberal watering every time the surface soil may appear dry would probably destroy the specimen so treated, and therefore means must be used to ascertain that the ball is really dry before applying water, and when this is the case give a liberal soaking. When the trellis or frame is well covered with strong healthy wood, which, if all goes on well, should be the case early in summer, unless the plants exhibit a tendency to produce flowers, remove them from bottom heat to a rather dry atmosphere for about a fortnight, and give but very little water at the root, which will check growth, and produce a tendency to bloom. Return them to a warm moist place, where they will soon be covered with blossom buds. We have already stated that the plant may be removed to a cool conservatory or greenhouse when had in bloom in summer; but in removing it from a moist, warm, close situation to a cool, dry, airy one, some management will be necessary, to prevent the leaves getting discoloured, or the plant sustaining a check. After blooming, place the plants in a house where the temperature may range rather high, to ripen up the wood, before placing them in their winter quarters; or in the case of plants that flower early, they may be allowed a short season of rest, then repotted, pruned back, &c., and be placed in bottom-heat and induced to make growth before winter; plants so treated must not be placed in a low temperature during the winter, as that would discolour the foliage, and probably injure the roots and wood, but should be wintered in a light bouse, where the temperature may range from 55° to 60° , and be very carefully watered. Specimens managed in this way will be ready to burst into bloom at any time in spring; they may be placed in a warm moist temperature.

The *Dipladenia* is not a favourite with insects, and with a properly moist atmosphere it will hardly suffer from any pest except black thrips, which may probably attack it, and if so, should be eradicated by frequent doses of tobacco-smoke. The best soil for this lovely plant is good rich turfy peat and light sandy turfy loam, in the proportion of about two-thirds of the

former to one-third of the latter. To this add a very liberal allowance of clean sharp sand, say one-fourth of the whole, and a quantity of clean potsherds broken small, and well mix the whole together. The soil should be ready mixed, and before using it placed where it will acquire about the same temperature as that of the ball of the plant to be shifted, and it should be in a proper state as regards moisture.

WALLS AND THEIR OVERCOATS.—No. II.

LET us proceed to consider what are the desiderata in a glazed protection for fruit trees; and in pursuance of the course commenced, I am anxious to go on reducing the question to its simplest form, by banishing therefrom the subject of fruit trees in pots, with the following remarks.

I believe the prevailing opinion upon this matter coincides with mine, viz., that the growing of fruit trees in tubs or pots is exceedingly interesting as a practice for amateurs, who are thereby enabled to have a small quantity of a large variety of fruits within moderate compass; and that it is useful to gardeners in general when it is desired to produce fruit upon plants small enough to be placed upon the table with their crop in a state fit for "plucking and eating." No practical gardener, however, will venture to assert that the cheapest mode of growing fruit under glass is to have the plants in the shape of small bushes in pots; nor yet that it is calculated to produce the finest and best flavoured fruit. We hold that a fruit tree will produce the largest quantity and best quality of fruit when it is allowed to develop itself with a certain amount of freedom—the happy medium between the grossly-growing, ill-managed tree, and the stunted occupier of a pot. This view of the matter we assume to be the true one; and if it be not, those who differ from us may if they please bring forward the subject for a separate and special consideration; it will not interfere with that at present under notice.

The great object of all the contrivances in use should be first to give the power of accumulating the heat of the sun's rays during the day, and of retaining it as much as possible during the night, in order to make up for the deficiencies of our climate, by accelerating the growth of the trees, and to protect them in their consequent tendencies from the natural cold of our nights. Our springs being too late, our summers too short, and our autumns too cold, to enable the Peach tree to develop itself and ripen its fruit, we are under the necessity of obviating these natural disadvantages as well as we can.

The first object, then, is to accumulate the heat of the sun's rays—to keep the heat about the trees—to retain it as much as possible—so that they have the benefit of the warmth of present added to the warmth of past moments. To effect this an absorbing substance must be provided—a sponge, so to speak—something which will quietly take in the heat as it falls upon it during the day, and give it out again during the night. It is necessary, also, that the trees should be in close contact

with the surface of this substance, otherwise they will derive little advantage from it. Now the earth is an absorber of this kind, but it is practically inconvenient to have the trees so trained as to be in contact with it; besides which, the rapidity with which it loses heat by radiation during the night, and its exposure to the most severe effects of hailstorms, &c., render it inapplicable. The brick wall next suggests itself; and we may believe in the wisdom of our forefathers, who discovered all its good qualities—namely, its quiet absorption of heat, which it gradually gives out again, when the sun ceases to shine upon it, and the surrounding atmosphere is cooler than itself. Then, again, its perpendicular position guards it in a great degree against loss from radiation, and this saving of heat is much assisted in well-finished walls by means of a projecting coping of some kind.

We have gone somewhat out of our way in laying down the *rationale* of the wall, as we had before assumed that it was a necessary protection; it will, however, be seen that this was requisite to form a groundwork upon which to base further remarks.

We had, moreover, assumed that it was insufficient generally, and we may as well, before going further, consider why it is so. The loss of heat is still so great during the clear nights of early spring, before the leaves of the trees have covered the walls enough to form of themselves a non-conducting covering, that the young shoots and blossoms are liable to be injured in various ways; especially as the difference is greater than under natural circumstances it would be, owing to the stimulating effects of the heat-accumulating wall during the day, and especially at those times when the earth in general returns so much of its heat to the bright clear sky, that the peculiar state of things we call "sharp frost" becomes an existent fact.

Well, we are still only bringing up the rear; our grandfathers found all this out, and, as protectives, adopted the various modes of straw curtains, Fir branches, canvas blinds, and many others, and *generally* succeeded in securing a respectable crop. It is, however, generally admitted that our springs are more precarious from their changeableness, if not upon the average colder, than they were in older times. It is, besides, generally expected that with our advanced knowledge and our improvements in arts and sciences, we should do more in the way of artificial cultivation than merely "secure respectable crops *sometimes*," for with our ordinary appliances the "*generally*" alluded to above has thus degenerated. The obvious common argument is, that in the present day we ought to be more than a match for the difference apparent in our seasons, that what *is* done sometimes *may* be done always, *ought* to be reduced to a certainty.

To proceed thus, having mentioned the advantages of the simple wall, and considering that without it we should lose them all, we may conclude that it is indispensable as a foundation for our scheme, and that all that is necessary further is to enclose it with a glass case, the latter containing between itself and the wall a body of air which, if the case is closed, will remain quiet and prevent the rapid loss of heat in windy weather, unavoidable under any mode of covering which the air can freely penetrate. The enclosure of a body of air in contact with the wall moderates very

much the escape of heat during cold nights or sunless weather, as every body knows who possesses even a handglass. So far concerning provisions for retaining the heat, and they may be made as perfect as possible if due regard is also paid to the means of thoroughly ventilating, which is the next necessity we shall notice. It is obvious that these must be sufficiently abundant to admit of the atmosphere being reduced in hot weather to the same temperature with that without. This cannot be accomplished by means of a few trap-doors at top and bottom; these are useful in their proper places, but in the case under consideration, where the object is to render the effect of the enclosing altogether nugatory, the system of ventilation must be wholesale, and at the same time simple and easily moved. The width of the case should not be greater than is necessary for practical utility and convenience, or the light will become too much diffused in passing to the trees.

There is another desideratum we must not lose sight of; while we make provisions for accelerating the growth of the trees in summer we must remember that they will produce the same effects in winter, unless other means are provided to counteract them. Such a consequence would be very detrimental in prematurely exciting the trees, and the only way in which it can be effectually prevented is by shading. The ease, however, with which this can be accomplished is of itself a strong recommendation to the system proposed, as it is only necessary to cover a portion of the front glass with thin whitewash; this will in great part be worn off by the spring rains, and what remains can be easily washed away, securing at the same time a thorough cleansing to the glass.

Having now gone over the principal requirements of a means of protection, we will compare our results with the descriptions of the plans adverted to in page 260 (present volume). The glass wall of Mr. Ewing fails from its want of the absorbing medium to collect and retain the heat, as the sun's rays, or the greater part of them, must pass quite through the structure into the earth on the opposite side. Mr. Ewing has very sensibly (in page 80) refuted one objection he says has been brought against the glass walls, namely their being cold in winter. This, in my mind, is one of the best points in their favour. Mr. Ewing remarks that the time since the introduction of his glass walls has been too short to test them. He speaks tolerably—and only so—of the example in use at Bodorgan; and it is but just to give him credit for apparent candour and moderation. It would be conferring a benefit upon us if other gardeners who have tried it or seen it in use would give us the benefit of their observations as to the results—present and prospective.

I cannot, however, dismiss them without in justice complimenting Mr. Ewing upon the very elegant appearance they must have if extensively carried out, and I would not discourage the idea of still trying them. Something might be done by hanging black curtains up behind the trellis in the spring until the leaves were nearly full grown. The fact of a flatly trained tree being able to expose *both its surfaces* to the light of day may probably ensure an amount of elaboration which cannot be obtained in trees against a wall, and which may be a counter-

poise against other disadvantages. It is an interesting experiment, and we shall be glad to see it sufficiently tested.

The orchard house so little answers to the requirements of a structure for permanent plants that we shall leave it for the purpose it was invented to serve, only I would beg leave to suggest to those who study respectability in the appearance of their garden appointments, that they may be built as neatly and ornamentally as even glass walls.

We find, then, we have two plans left,—the “lean-to” at page 83, and Mr. Fleming’s mode. Either of these will answer the purpose, although we decidedly prefer the latter as more ornamental, and as being most easily and efficiently ventilated. We must also mention that the upright front places all parts of the tree at the same distance from the glass—a point of some importance; and it also admits of a front trellis for smaller trees, about half as high as the front glass.

I have only had an opportunity of seeing one specimen of Mr. Ewing’s plan—namely, that at Chiswick; and I do not think it fair to judge by it, at all events for the present. I have this autumn seen the walls at Trentham, and they are everything that can be desired. I have known that place for many years, and know that it is one of the most unfavourable in the country as regards situation; but in nothing is the triumph over natural difficulties (although the whole place is one great gathering of triumphs) more decided than in the case of the wall fruit trees.

Mr. Saul takes an excellent common-sense view of the subject, in laying great force upon the point profit, which is precisely what we have to consider; but because he happens to secure first-rate crops every year with the aid of simple appliances, he would endeavour to convince himself that it may be done everywhere, on every imaginable soil, and in every variety of our climate. If, however, he were located in many places I could mention (and from the very general complaints which have been made during the last few years, I may safely say in nine places out of ten), he would find something more to be necessary than straw ropes, Spruce branches, or even canvas rollers. I speak from experience, and though I have this year a most satisfactory crop of all wall fruit, save of Pears, and have had no means save Spruce branches wherewith to protect them, I would be very glad to cover the walls with glass, and hope to do so ere long. This garden has been formed and planted upwards of twenty years, and this is the first season it has produced anything like a crop of Apricots, although the trees are healthy and have generally had an abundance of blossom.

The subject is not exhausted, but I have probably said enough for the present.

HELMINTHION.

VERBENAS FOR BEDDING OUT.

To detail the merits, demerits, and colours of *all* the *new varieties* would require a greater amount of space than we can afford, and therefore we are content to name a few of the best. It appears to us that Verbenas should be divided into two sections—for bedding or decorative

purposes, and for pot culture. For the latter purpose a great many are admirably fitted, possessing, as they do, some most beautiful shades of colour. We see no reason why they should not be extensively grown in pots, not as small pot plants but as good specimens, to keep up a display in the conservatory late in the season. Too many are prone to regard the Verbena as a bedding plant only; and if all the varieties are submitted to this process indiscriminately, great disappointments must necessarily ensue, as none but decided colours are really serviceable for bedding purposes, because those varieties possessing more than one shade of colour, such as Parfum Madeline and others, are apt to run under the influence of rain or brilliant sunshine. Some of the most distinct and best for *bedding purposes* are King of Scarlets (Thompson's), brilliant orange scarlet, with a striking yellow eye, dwarf habit, and a good grower. This variety is a valuable acquisition, the colour being so brilliant, and it stands the weather well. In Orb of Day, an older variety and but little known, we have an excellent bedding variety, of dwarf, erect, close habit, not so robust and rambling as Robinson's Defiance, and a different shade of scarlet. For a good purple, none will be better than Purple King, good in colour, dwarf compact habit, and a free bloomer. President is a rich deep purple, with a clear white eye, very dwarf habit, very distinct and attractive. The *best blue* will be Blue Beard. The colour is really *blue*, good truss, and a most attractive and invaluable variety. A good blue has long been wanted, most of the so-called blues being of a blue purple colour; now we shall have a good blue and a good purple in Purple King. The best white will be Eva—pure white, of good habit. Next in the same class, America and Celina Mallet will do very well. In crimsons, Rouge et Noir, dark crimson with white eye, is the best we have seen. Eblouissante is a beautiful crimson scarlet, large truss, with well-formed pip, rather strong growth, and should have room; it is a very attractive variety. Annie Laurie is a particularly good late, colour rosy purple, with a large white centre, free grower, and is very attractive at a little distance.

Among rose-coloured Verbenas none will take so high a place as Lady Lacon, bright pink with large white centre, dwarf close habit, and an abundant bloomer; this is a first-class variety for beds. William Barnes is a crimson, with a large dark centre, like a Sweet-William, good habit, and large truss, evidently a good variety for bedding. The best of all, however, is Wonderful, the most attractive flower yet seen, rich plum purple colour, with a very large distinct white centre, with large truss, excellent habit, and at this late period of the year, when all the other varieties are over, a large bed of Wonderful is in full bloom. We cannot too highly recommend this variety, especially for the flower-garden.

In a future number we shall give a list of some of the new kinds, and record their merits as suitable for pot culture.

HINTS ON GRAPE GROWING.—No. V.

BY A GARDENER IN THE COUNTRY.

THE house having been erected according to our previous directions, and every thing connected with the ventilation, &c., put into working order, we will leave the heating of it for a future chapter, and proceed with making the borders to receive the plants. The best time for planting is in the month of April or early in May; they then have their season before them, and, if proper attention is given them, will fairly establish themselves the first year. Sometime in the winter previous some strong one year old Vines should be selected; these should have well ripened wood three feet long, and as thick as a quill—if stouter so much the better. Mind the plants have been propagated from single eyes, and are not from layers or long cuttings, such being comparatively worthless. When received, cut each back to three eyes, or buds; they will look a little stumpy, but never mind that. You may now keep them in a cold pit, or anywhere away from sharp frost. Towards the end of March they will require to be gently started into growth, and indeed at that time you will perceive the buds are beginning to swell of themselves. Get a portion of the soil prepared for the border put in a dry place, and a sufficient number of pots, two or three inches larger than the size they are in. Next take the plants out of their pots and shake the old soil completely from them; the roots will be found matted or coiled repeatedly round the pots, particularly if the plants are what they should be. These must be uncoiled and set at liberty before putting them in their new pots, into which spread the roots and fill in between them with the new soil. By the time for planting them arrives they will have commenced making fresh roots, and uncoiling them will enable the roots to strike freely into the border when planted out, which they would not do so well if the roots had not been set at liberty. A pit or common dung frame will be the best place for them after potting, where a little bottom heat can be given; this will soon start the roots into active growth, and the buds will break strongly. Failing this place them in the house where they are to be planted; they will require disbudding when they break, leaving the best shoot, which should be carefully tied to a support as it advances, and the plants should be kept near the glass. Of course in whatever kind of house they are grown in, air will be required, almost daily, to keep them from drawing, as the slower they grow the stronger will the rods ultimately become, and this should be remembered day by day as the Vines progress.

Having put the plants required to fill the house in order, our next attention must be directed to making the border. This should always, if possible, be done a month or six weeks before planting the Vines, for as we have an inveterate dislike to treading artificial borders to make them firm, that time will be only sufficient to allow the fresh materials of which it is made to get somewhat into place before the Vines are turned out. March, or early in April, is in our opinion the best time to fill in the border, especially if the compost has been put together in

the previous autumn. One thing carefully attend to, which is, not to attempt anything with the border except in the driest weather, and only when the compost itself is in a dry state; very much of the future condition of the border, and consequently the welfare of the Vines, will depend on this. In my last paper I directed that a few inches of broken stones should be laid over the bottom of the border; over these lay a fresh turf two or three inches thick, with the Grass downwards. If it is difficult to procure turf, dry straw, three or four inches thick, and laid close together, may be substituted; the object is to prevent the finer portions of the border from being washed among the rubble stones, and helping to choke up the drainage. The border should then be filled up with the compost recommended in a former chapter; do not break it down any finer, but merely level it as carried on, and have a sufficient number of boards for the men to walk on during the work; but, as noticed above, on no account tread it, but allow for it to settle down to two feet,—the depth we recommend. The border must, when first filled, be a foot or eighteen inches higher; this will not be too much, and the mould will retain its porosity much longer when left to settle down of itself than when artificially made firm by treading; nor yet will the Vines start away so freely in the latter case. As the Vines are intended to be planted inside the house, a $4\frac{1}{2}$ inch brick wall must be run up two feet six inches from the front of the house, and as high as the level of the floor. If the border has been flagged at the bottom, as advised, the air drains, which will be carried to this point, must be left with a clear opening, to insure a free circulation. The portion of border inside the house will be filled with compost at the same time as the outside; the Vines will be planted in this inside border, and as the front sill is merely supported by posts, they offer no obstruction to the free growth of the roots, which can pass uninterruptedly underneath, and, in fact, the inside is merely a continuation of the outside border carried within the house to receive the Vines—a plan far preferable to having a brick wall with arches for the roots to find their way through as best they can, and, what is still better, it is much less expensive.

(To be continued.)

LIQUID MANURE.

PERMIT me to offer a few remarks on the valuable effects that night-soil, when reduced to a liquid state, has upon the various productions of the garden; and, as not a few of your readers will be aware, manures are of no use to vegetation until they are dissolved in water. When, therefore, liquid manure is used, the cultivator has less trouble, and at the same time he is applying a substance in the state in which plants can best receive it and derive most good from it.

For some years past I have been in the habit of using this description of manure to a considerable extent, and have found the results to be very beneficial; besides it prevents the necessity of applying for such quantities of manure in a solid state. At the end of the season I make

it a rule when turning up vacant pieces of ground to the action of frost, to lay upon the exposed soil some rotten manure, adding a considerable portion of vegetable refuse reduced to mould for such purposes. This mould is obtained by taking all the refuse possible from the garden, throwing it into a heap to rot, and turning it two or three times during the summer. The decomposed vegetable matter is admirably adapted for the growth of plants for culinary purposes.

During the winter I go over the ground intended for the Brassica family, pouring on a large quantity of this liquid, in order to allow the winter rains an opportunity of washing it down, so that the ground is greatly benefited.

The above is also applicable to Gooseberry and Currant bushes. I have a large basin made round the root of each, and about the end of November I apply two large pans full of the liquid to each plant; afterwards I level in the earth that had been previously taken out for the purpose of forming the basin.

About the end of January, after the bushes have undergone their winter pruning, they again receive a similar supply before commencing to put the ground in neat order for the season. Raspberries and Strawberries are also greatly benefited by the use of this liquid. In applying it to Raspberries the method recommended for Gooseberries is suitable, and where it is applied to Strawberries it increases the crop twofold. Mr. Rivers strongly recommends it for Roses. He says, "I have found night-soil mixed with the drainings of the dunghill, or even with common ditch or pond-water, so as to make a thick liquid, the best possible manure for Roses, poured on the surface of the soil twice in winter, from one to two gallons at each time. December and January are the best months; the soil need not be stirred till spring, and then merely loosened 2 or 3 inches deep with the prongs of a fork; for poor soils, and on lawns, previously removing the turf. This method I have adopted for several years, and have found it most efficacious."

When night-soil is not to be got, I take as next best cow-dung made into a thick liquid of the consistency of porter, and apply it in larger quantities than when night-soil is employed.

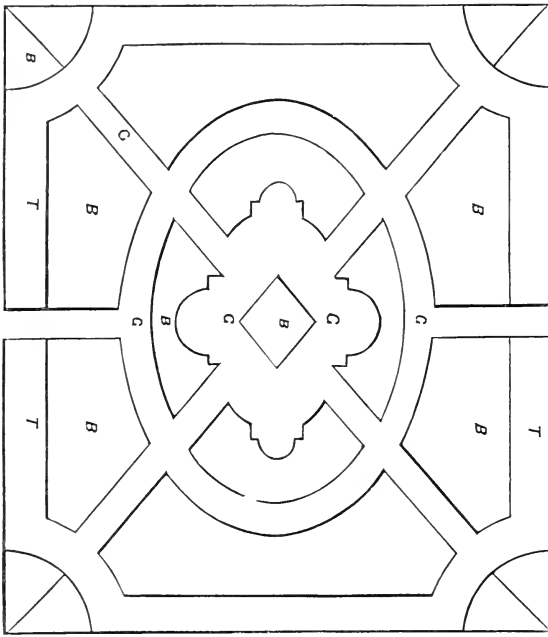
JOHN FLEMING, *Gr.*

Bloomhill, Cardross, Dumbarton.

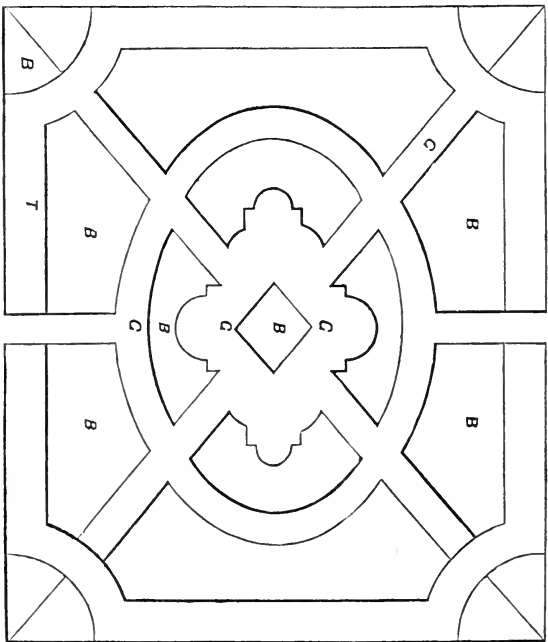
PLAN OF FLOWER-GARDEN.

THE annexed design for a flower-garden represents a mode of laying out a rectangular piece of ground, and may either form a centre or be laid out in pairs or fours. The edging should be formed of dressed stone, which should be a rule with all architectural gardens. The outer border, formed of turf or dwarf box, is admirably adapted to set off the colour of the flowers in the inner beds, and forms a kind of frame to the picture. The quarter-circle beds at the angles should always be planted with very bright-coloured flowers, to balance the proper proportion of colour and Grass.

PLAN OF FLOWER GARDEN.



GRAVEL PATH.



B, BED.

G, GRAVEL.

T, TURF OR BOX.

LISTS OF PELARGONIUMS.

I AM favoured with the following most valuable and interesting returns, and I would wish to observe that for practical utility we must all acknowledge them to be worthy of the "good cause," and from which doubtless all must profit. Here we see strongly developed the ideas of perfection entertained, firstly by our raisers, and secondly by our cultivators; and we are enabled to mark the types of excellence which, in the several opinions of our best growers, are here set forth. One raiser remarks: "I thought you would not care for raisers' opinions, as they are too much interested." Of course they are interested, but growers are also equally interested, inasmuch as annually they have to rely on the integrity of raisers for the supply of new varieties, without which the best cultivated collections lose half their charm. Another return is modestly prefaced with the question, "Which of the annexed should I now discard?" The answer may be gleaned from the general body of the returns.

A third gentleman writes that he must refrain from complying, not having during the past season closely gone into the merits of the flowers, and will not risk to return lists founded on the statements of others.

There are those who, not complying, may perhaps consider themselves incompetent, others may be too idle to take upon themselves the task; as to the latter class I would urge of them to leave the pursuit at once. Not take the trouble to do a public good, indeed!

And further, as these returns have each been made independent of the other, an illustration is given of the general estimate held of certain varieties, and of the similarity of ideas which pervades those now closely interested in the growth of the Pelargonium.

In conclusion, I must state that the raisers' names are indicated by the initial letter, as A Arnold, B Beck, D Dobson, F Foster, Fqt Foquette, G Gaines, H Hoyle, T Turner.

Fancies will be treated of in the next number.

JOHN EDWARDS.

VARIETIES.	Mr. Beck.	Messrs. Dobson and Son.	Mr. Frost.	Mr. G. W. Hoyle.	Mr. Nye.	Mr. J. Riley.	Mr. Robinson.	Mr. Turner.	TOTAL.
Arethusa B	1	1	1	...	...	...	...	1	4
Attraction F	2	2	2	1	1	1	1	2	8
Ambassador B	3	3	...	...	...	2	...	...	3
Ariadne F	...	...	...	2	2	3	2	3	5
Alibi R	...	...	...	...	3	...	...	...	1
Astrea H	...	...	...	3	...	...	...	...	1
Bride of Abydos . . .	...	4	...	...	...	...	...	...	1
Beatrice . . . .	...	...	...	...	...	4	...	...	1
Colonel of the Buffs . . H	...	...	3	4	...	...	...	4	3
Carlos H	4	5	4	5	4	...	3	5	7
Constance F	...	...	...	...	5	...	...	...	1
Cloth of Gold F	...	...	...	...	6	5	...	...	2

VARIETIES.	Mr. Beck.	Messrs. Dobson and Son.	Mr. Frost.	Mr. G. W. Hoyle.	Mr. Nyc.	Mr. J. Riley.	Mr. Robinson.	Mr. Turner.	TOTAL.	
Duchess of Wellington	T	...	...	...	...	6	4	...	2	
Enchantress	F	5	6	5	6	7	5	6	8	
Eugenie	H	...	...	...	7	...	...	...	1	
Exactum	H	...	...	6	...	8	...	7	3	
Empress	B	6	7	7	8	9	8	...	7	
Exhibitor	B	7	8	...	...	...	...	...	2	
Electra	...	...	...	...	...	...	6	...	1	
Eurydice	F	...	...	...	...	9	...	...	1	
Eliza	F	8	...	...	...	...	...	...	1	
Flying Dutchman	G	...	9	...	...	...	...	...	1	
Governor General	H	9	...	8	9	...	10	7	9	
Ganymede	...	...	...	...	...	11	8	...	2	
Harriett	B	...	10	...	...	...	...	...	1	
Jupiter	B	10	...	...	...	...	...	...	1	
Loveliness	B	...	...	...	...	12	...	...	1	
Leonora	H	...	11	...	10	...	13	...	10	
Leah	B	11	12	9	11	10	...	...	11	
Lucy	F	...	13	10	12	11	...	...	12	
Leader	B	12	...	...	...	...	9	...	2	
Magnet	H	13	14	11	13	12	14	10	13	
May Queen	H	...	...	...	...	...	11	...	1	
Mochanna	H	...	...	12	14	...	...	12	...	3
Medora	H	...	...	13	...	...	...	13	...	2
Majestic	H	...	...	14	15	13	...	14	14	5
Mary	H	...	...	...	16	14	...	15	15	4
Magnificent	F ^{qt}	...	15	...	17	...	15	...	16	4
Neatness	B	14	...	...	...	...	16	...	...	2
National	F	...	...	15	...	15	...	...	17	3
Optimum	F	15	16	16	...	16	17	16	18	7
Pilot	...	...	...	...	...	18	17	...	...	2
Purple Perfection	F	...	...	17	...	...	...	...	19	2
Portia	H	...	...	18	18	17	...	...	...	3
Pasha	B	16	17	...	...	...	...	...	...	2
Purpureum	B	...	18	...	...	...	...	...	...	1
Pictum	B	17	19	...	...	...	...	...	...	2
Purple Standard	F	18	...	...	...	...	...	...	...	1
Queen of May	H	...	...	19	...	18	19	...	20	4
Rosa	B	19	20	...	...	...	20	...	...	3
Rachael	B	...	...	...	...	...	21	...	...	1
Regalia	H	...	...	...	19	19	22	18	21	5
Rosa	F	...	...	...	...	20	23	...	...	2
Rosamond	B	20	...	20	...	...	...	19	...	3
Rival Queen	H	...	...	21	20	...	...	...	...	2
Rhoda	F	...	...	...	...	21	...	...	...	1
Rowena	T	...	21	...	...	...	...	20	...	2
Rebecca	B	21	22	...	...	...	...	...	...	2
Sanspareil	H	...	...	22	21	22	...	21	22	5
Spot	B	22	...	...	...	...	...	...	...	1
Virginia	H	23	...	23	22	23	...	22	23	6
Vulcan	B	24	23	24	...	24	...	...	24	5
Virgin Queen	A	...	24	...	23	...	24	23	...	4
Zaria	H	...	...	...	24	...	...	24	...	2

CULTURE OF THE FIG IN THE OPEN AIR.

THOUGH the Fig is a native of warm climates, and, owing to the succulence of its wood, little calculated to endure severe winters, nevertheless, when grown on a wall, there is no other fruit tree on which we can yearly depend with so much certainty for a crop of fruit, provided the wood be protected during the winter months. With proper cultivation the Fig will ripen its fruit in every part of Great Britain. Valued as the fruit is, and to the culture of which so much glass is devoted, it has often been to me a matter of surprise that so little attention has been paid to its cultivation in the open air. It will ripen its fruit in the highest perfection equally well on an east or west aspect as on a south.

In an angle of the gardens here there is planted a large tree, one half of which is trained on the west wall, and the other half on the south. That part on the west wall bears equally well, and ripens its fruit as early, as that portion of the tree on the south wall. The sort is the White Marseilles, and from this tree I have gathered as many as 240 fruit in one season; and to show that the quality of the fruit was good, I may mention that I got this season three prizes for fruit from this tree. I may also mention that whenever we have any wasps in these gardens the fruit on this tree is a favourite with them. I have also a large tree of the Brown Turkey, which bears and ripens its fruit equally well; indeed, I am of opinion that most of the varieties would with proper treatment ripen in the open air.

The following is my treatment of these trees. As soon as the leaves are off the trees, which is generally, according to the season, the end of October or beginning of November, I prune them if they require it, but if properly attended to during summer they will require little or no pruning at this time. I then take off the ends of every shoot, and to this I attach the utmost importance. I then nail all the shoots in their proper places, and thatch the whole of the trees with straw; but if they were in a situation where the appearance of the straw during winter was objectionable, I would loosen all the branches from the wall, collect them into one or two bundles, and then cover them with straw or any other material which would be sufficient to protect the wood. I leave the straw over the trees until the end of April or beginning of May, until all danger from frost is over. I then take it off, and the trees being previously trained nothing further at that time is required. If the shoots have been properly attended to the previous season, in the course of a few weeks the embryo Figs will be observed to grow larger, and in Yorkshire they begin to ripen about the middle of August, and then continue for about six weeks. But during the summer months great attention must be paid to thinning the young shoots—rather err in having them too thin, to having them overcrowded with shoots.

When kept thin, the wood will in general be short-jointed, and well ripened. The young shoots must not on any account be nailed to the wall during summer, because, if nailed in, the embryo Figs would become too largely developed before winter, and most of them would

fall off without ripening. The trees will require nothing further done to them during summer except attending to protecting the fruit from wasps, &c. By keeping the shoots well thinned they will be short-jointed and well ripened, and by letting them hang loosely from the wall the embryo Figs will not be brought too forward to stand over winter. Towards the end of October, when the leaves are all off again, all that will be required is to take the ends off all the shoots, and either nail them to the wall and thatch them, or loose the branches from the wall, tie them together, and cover them with protecting material.

Much of the success depends on removing the ends of the shoots, because, when the terminal bud is left to develop itself, it robs the young shoot of all its organised matter, and the consequence is, the embryo Figs die off for want of their proper nourishment; but when the bud is removed the young fruits have all the matter in the shoot for their support. It is often a subject of complaint that the young Figs turn yellow and die off. This often happens when the terminal bud of the shoot is allowed to grow, because it deprives them of their proper support.

By the method just detailed, I have always had abundant crops of Figs in the open air. Indeed, I look forward every year for a crop of Figs almost with as much confidence as I do to the return of summer. I have said nothing of the soil proper for the Fig, because it will grow in almost any kind of garden soil. Having followed the above plan for some years, and it having always been attended with the most entire success, I can confidently recommend it.

M. SAUL.

Stourton.

CALEDONIAN HORTICULTURAL SOCIETY.

ON Saturday the 9th September the Autumn Fruit Competition was held. Notwithstanding the rather unfavourable character of the season for fruit, there was, on this occasion, a very large supply, and many productions of superior excellence were brought forward. Prizes were awarded as follows, viz. :—

For Peaches, in which there were no fewer than nineteen competitors, the prize was gained by Mr. Cowie, gardener to Lord Torphichen, Calder House, with the varieties Royal George and Late Admirable; a second premium was voted to Mr. Campbell, gardener to James Johnston, Esq., of Alva, for Noblesse and St. Catherine; and a third to Mr. Crocket, gardener to Colonel Ferguson, Raith House, for Belle-garde and Royal George.

There were thirteen competitors for the best six Nectarines, and three prizes were awarded—the first to Mr. Allan, Rachills, Lockerbie, for Roman; the second to Mr. Niven, Kier, Dunblane, for Elruge; and the third to Mr. Ramsay, Newbyth, Prestonkirk, for the same variety.

For the best bunch of Muscat Grapes there were nine competitors.

The prize was awarded to Mr. Lees, gardener to the Earl of Haddington, Tynninghame House, for Muscat of Alexandria.

In Black Hamburgh Grapes there were fifteen competitors. The prize was gained by Mr. Fowler, Smeaton, Prestonkirk; a second premium was voted to Mr. Crocket, Raith; and a third to Mr. Kidd, gardener to Lord Kinnaird, Rossie Priory.

In Fro.tignan Grapes, for which there were eight competitors, the prize was awarded to Mr. Fowler, Smeaton, for White Frontignan; and a second premium was voted to Mr. Crocket, Raith House, for Grizzly.

In Apricots there were sixteen competitors, and three prizes were awarded—the first to Mr. Ramsay, Newbyth, for Moorpark; the second to Mr. Crocket, Raith, for Royal; and the third to Mr. Denholm, Broxmouth, for Moorpark.

In Green-gage Plums there were seven competitors, and three prizes were also awarded—the first to Mr. Fraser, Belmont; the second to Mr. Goodall, Newbattle Abbey; and the third to Mr. Anderson, Oxenford Castle.

For the best six Plums of any variety (exclusive of Green-gage) there were fourteen competitors. The first prize was gained by Mr. Crocket, Raith House, with Purple Gage; the second by Mr. Kidd, Rossie Priory, with the Jefferson Plum; and the third by Mr. Graham, Garscube, Glasgow, with Kirk's, Washington and Magnum Bonum.

For the highest flavoured Melon, for which there were sixteen competitors, the prize was awarded to Mr. Mossman, gardener to James Hunter, Esq., of Thurston, for Bromham Hall; a second premium was voted to Mr. Temple, Falkland Palace, for the Pinkie Prize Melon; and a third to Mr. Lees, Tynninghame, for Austin's Incomparable Green-fleshed.

In Jargonelle Pears there were four competitors. The prize was awarded to Mr. Mitchell, gardener to Lady Keith, Rayelston; and an extra award was assigned to Mr. M'Farlane, gardener to Sir John Warrender, Bart., Lochend, Dunbar.

For the best dish of Gooseberries there were seven competitors, and two prizes were awarded—the first to Mr. Blair, Largo House; and the second to Mr. Lees, Tynninghame, both of whom produced Red Warrington.

For the best three Phloxes there were three competitors, and two prizes were awarded—the first to Mr. Smith, gardener to Mrs. Dodds, Clermiston House, by Corstorphine, for Abdul Medschid Khan, Compacta rosea, and Madame Viard; and the second to Mr. Kerr, gardener to Robert Brown, Esq., of Firth, Roslin, for Abdul Medschid Khan, Flora's Crown, and Iphigene.

The Silver Medal offered by Messrs. P. Lawson and Son, for the best dish of Lawson's Golden Gage Plum, was awarded to Mr. Kay, Blackadder, Chirnside.

For the prize of one guinea, offered by Messrs. Downie and Laird to practical gardeners, for the best eighteen blooms of Hollyhocks, there were thirteen competitors. The prize was gained by Mr. Cossar, gardener to Lady Anne Hay, Kingsmeadows, with Comet, Lizzy,

Sulphur Queen, Pillar of Beauty, *Rosea grandiflora*, Lady Dalrymple, Shaded Model, Lord Ronald, Eugenie, Marquis of Tweedale, Agricola, Queen, Pourpre de Tyre, Mountain of Light, Walden Gem, Beauty of Tweedale, Charles Lidgard, and Sir David Wedderburn.

For the prize of half-a-guinea, offered by Messrs. Downie and Laird to amateurs, for the best six blooms of Hollyhocks, there were six competitors. The prize was gained by William Blackwood, Esq., Kerfield Cottage, Peebles, with Sulphur Queen, Lizzy, Pourpre de Tyre, Charles Barron, Letitia, and Walden Gem.

The prize of one guinea, offered by Messrs. J. Dickson and Sons, for the best eighteen autumn Roses, was gained by Mr. Robertson, Rockville, with the following sorts, viz. :—Lady Alice Peel, Marshal Bugeaud, Géant des Batailles, Moiret, William Griffiths, Ophirie, Gloire de la Guillotere, Robin Hood, Elise Sauvage, Napoleon, Madame Desprez, Cymedor, Abbé Mioland, Euphrosyne, Augustine Lelieur, Amie Vibert, Carolina, and L'Enfant d' Ajaccio.

The Silver Cup (value three guineas) offered to practical gardeners and amateurs for the twelve best and most distinct spikes of Hollyhocks, brought ten competitors. The prize was gained by Mr. Laing, gardener to the Earl of Rosslyn, Dysart House, with Walden Gem, Eva, White Globe, Hon. Mrs. Ashley, Yellow Model, Beauty of Cheshunt, Queen of Denmark, Pourpre de Tyre, Shaded Model, Souvenir, Emperor, and Joan of Arc. The second prize (two guineas) was assigned to Mr. Pow, gardener to A. Berwick, Esq., of Norton, for Sulphur Queen, Joan of Arc, Lizzy, Watford Surprise, Walden Gem, Lady Braybrook, Illuminator, Napoleon, *Rosea grandiflora*, Pourpre de Tyre, Charles Barron, and Gem of the North. A third premium (Society's Silver Medal) was voted to William Blackwood, Esq., Kerfield Cottage, Peebles; and a fourth to Mr. Pender, Moredun.

The Hollyhock show this season surpassed by far any former show here, both in length of spike and quality of bloom. In the first stand the Hon. Mrs. Ashley stood pre-eminent, nearly four feet high, and a perfect pillar of bloom. Then came Queen of Denmark, and Eva, and Beauty of Cheshunt, three feet spike, was as near perfection as we have seen; so was Shaded Model and Joan of Arc. In the second stand Lizzy and *Rosea grandiflora* were fine; this stand was completely destroyed by the spikes being cut only twenty-one inches long: they were merely stumps. The spikes in the third stand were very long, four to five feet, but the blooms were very thinly set, and not at all compact.

Mr. Laing, Dysart House, exhibited eighteen spikes of Seedling Hollyhocks. A first class Certificate was awarded to No. 1, 1854, named Countess of Rosslyn, flowers purple, shaded with lilac; and a certificate of merit to No. 5, 1854, named *Aurantia superba*, which was recommended for fine quality of spike and novelty of colour.

Messrs. Downie and Laird exhibited spikes of three seedling Hollyhocks. A first class certificate was given to Isabella, flowers pale primrose, smooth, and of fine form. Certificates of merit were awarded to Beauty of Beechwood, and Rose Perfection—the former a deep crimson, the latter a pale peach-coloured sort. Laing's Countess

of Rosslyn and Downie's Isabella appeared to us as the only desirable varieties.

For the Silver Cup (value three guineas) offered to nurserymen for the twelve best and most distinct spikes of Hollyhocks, there were three competitors. The prize was awarded to Messrs. Downie and Laird, West Coates, for Watford Surprise, Felicia, Penelope, Margaret Ann, Souvenir, Yellow Model, Lizzy, Pourpre de Tyre, Beauty of Beechwood, Emperor, Joan of Arc, and Eva. The second prize (two guineas) was awarded to Messrs. Ballantyne and Sons, Dalkeith, for Napoleon, Scarlet King, Sulphur Queen, Romulus, Pourpre de Tyre, Shaded Model, Glory of Cheshunt, Safranot, Penelope, Lizzy, General Bem, and a seedling. A third premium was voted to Messrs. Dickson and Co., Leith Walk. The first stand contained fine spikes of Felicia, Penelope, Lizzy, and Beauty of Beechwood.

Simultaneously with the fruit exhibition, the Annual Grand Dahlia and Hollyhock Competition (open to the United Kingdom) was held in the Society's garden.

For the Silver Cup (value three guineas), offered to nurserymen for the best twenty-four blooms of Dahlias, there were seven competitors. The prize was awarded to Messrs. J. Dickson and Sons, Inverleith Nurseries, for Duke of Wellington, Crocus, Lilac King, Mr. Seldon, Queen of Dahlias, Annie Salter, White Standard, Miss Caroline, Fanny Keynes, Princess Radziville, John Edward, Sir R. Whittington, Sir F. Thesiger, Malvina, Morning Star, Mrs. Seldon, George Glenny, Bishop of Hereford, Mrs. Ferguson, Amazon, John Keynes, Robert Bruce, Bob, and Barmaid. The second prize (two guineas) was assigned to Mr. Thomas Handasyde, Glen Nursery, Musselburgh, for Robert Bruce, George Glenny, Caractacus, White Standard, Duke of Wellington, Fanny Keynes, Phantom, Ma Beauté, Barmaid, Malvina, Queen of Dahlias, Mr. Seldon, Lady Bathurst, Amazon, Jaune de Passy, Bob, Sir F. Bathurst, Rachel Rawlings, Princess Radziville, Sir J. Franklin, Mrs. Ferguson, Frederick Jerome, Mrs. Rawlings, and Sir C. Napier. The third prize (one guinea) was voted to Messrs. Downie and Laird, West Coates Nursery.

In this class, out of the seven competitors, three stands that were placed were clear away from the others in quality; the first stand was good, and contained some fine blooms, the best of which were Duke of Wellington and Robert Bruce; Princess Radziville was also fine, very large, and high coloured; Queen of Dahlias was a noble specimen, and very perfect; so was Fanny Keynes, Lilac King, and John Edward. The only faulty bloom was Sir R. Whittington, rather young, and wanting that fine outline and centre which another day would have given to the flower. The second stand was also good, but had a few faulty centres; however it contained some good blooms, the best of which were White Standard, Lady Bathurst, Jaune de Passy, and the old favourite (though unconstant) Frederick Jerome.

For the Silver Cup (value three guineas), offered to practical gardeners and amateurs, for the best twelve blooms of Dahlias, there were fourteen competitors. The prize was gained by Mr. Young, gardener to Mrs. Ferguson, Archerfield, with Duke of Wellington,

Fanny Keynes, Princess Radziville, Plantagenet, Miss Caroline, John Keynes, Robert Bruce, Queen of Dahlias, Sir J. Franklin, Sir R. Peel, Mrs. Ferguson, and Seraph. The second prize (two guineas) was awarded to Mr. Reid, gardener to Sir John Richardson, Bart., Pitfour Castle, for Duke of Wellington, Mr. Seldon, Fanny Keynes, Rose of England, Ma Beauté, Miss Caroline, Edward Foster, Golden Eagle, Mrs. Ferguson, Tom, Malvina, and Andromeda. The third prize (one guinea) was assigned to Mr. Turner, gardener to W. E. Hope Vere, Esq., Graigie Hall; and a fourth was voted to Mr. Reid, gardener to William Wilson, Esq., Broomfield, Blackhall.

In this class the contest was very spirited, and the four first stands were very close. The blooms in the first stand were remarkably well grown, Princess Radziville and Fanny Keynes were noble blooms; John Keynes and Sir John Franklin were also fine. The second contained a beautiful flower of Golden Eagle; and Fanny Keynes, Mr. Seldon, Duke of Wellington, and Miss Caroline were very good blooms.

For the prize of one guinea offered to nurserymen for the best twelve fancy Dahlias, there were four competitors. The prize was awarded to Messrs. Downie and Laird, West Coates, with Miss Ward, Miss Compton, Marvel, Topsy, Princess Charlotte, Wonderful, Admiration, Flora M'Ivor, Gloire de Kain, Phaeton, Jonas, and Laura Lavington. A second premium was voted to Mr. Handasyde, Glen Nurseries, for Princess Charlotte, Unanimity, Empereur de Maroc, Le Pæon, Gloire de Kain, Kossuth, Elizabeth, Liliput von Baynath, Mrs. Willis, Jonas, Admiration, and Wonderful. A third premium was awarded to Messrs. J. and R. Thyne. Among the Fancies in the first stand were very attractive blooms of Marvel, Topsy, and Gloire de Kain. In the second, Princess Charlotte, Gloire de Kain, and Laura Lavington, were very pretty.

The prize offered to practical gardeners and amateurs, for the best six fancy Dahlias, was gained by Mr. Stenhouse, gardener to Sir Peter Arthur Halkett, Bart., Pitfirrane, Dunfermline, with Elizabeth, Kossuth, Miss Ward, Unanimity, Lady Granville, and Rachel. The best six in this class were disqualified, two blooms being alike; the others scarcely deserved a prize. There was a great number of competitors.

ON CUTTING OFF STRAWBERRY LEAVES.

AMONG the many discussions which have taken place on the practical points of gardening, this one seems to have merged into a passive acquiescence with the authorities, who some ten years back condemned the practice as one physiologically wrong. I suffered myself to go with the stream, and not caring to wade into the mysteries of physical science, left off the "antiquated" practice of mowing over my Strawberry beds after the fruit was gathered. I know not how long matters might have gone on in this way if I had not the other day paid a visit to the garden grounds of Mr. Lydiard, near Bath, who is one of

the very best Strawberry growers we have, as the frequenters of the London exhibitions will recollect. Bad as the season has been for this fruit, Mr. Lydiard's crops were abundant—the fruit magnificent. Well, thought I, how clearly this proves that Strawberry growing, like everything else, is advancing. I stood admiring the fine foliage of a bed of Keens' Seedling—that good old Strawberry—when Mr. L. astonished me with a piece of information I little expected. “We shall very soon put the scythe over these,” said he. “What! cut off the leaves?” I replied. “Yes, we always do; you can't think the good it does them: leaves, blight, insects, and all besides are clean burnt up, and we get a crop of new leaves, which keep fresh and green through the winter, rarely turning brown. That bed,” said he, in continuation, “is five years old, and I have others of different kinds six and seven years, which still bear abundantly, and which have been treated the same every year since they were two years old.” I confess I felt somewhat foolish, for I saw that old practices are not always wrong, though running counter to scientific propositions. I therefore venture to put the case in print for the benefit of your readers, as the matter appears to me worth reviving.

Box, Wilts, July 20.

W. H.

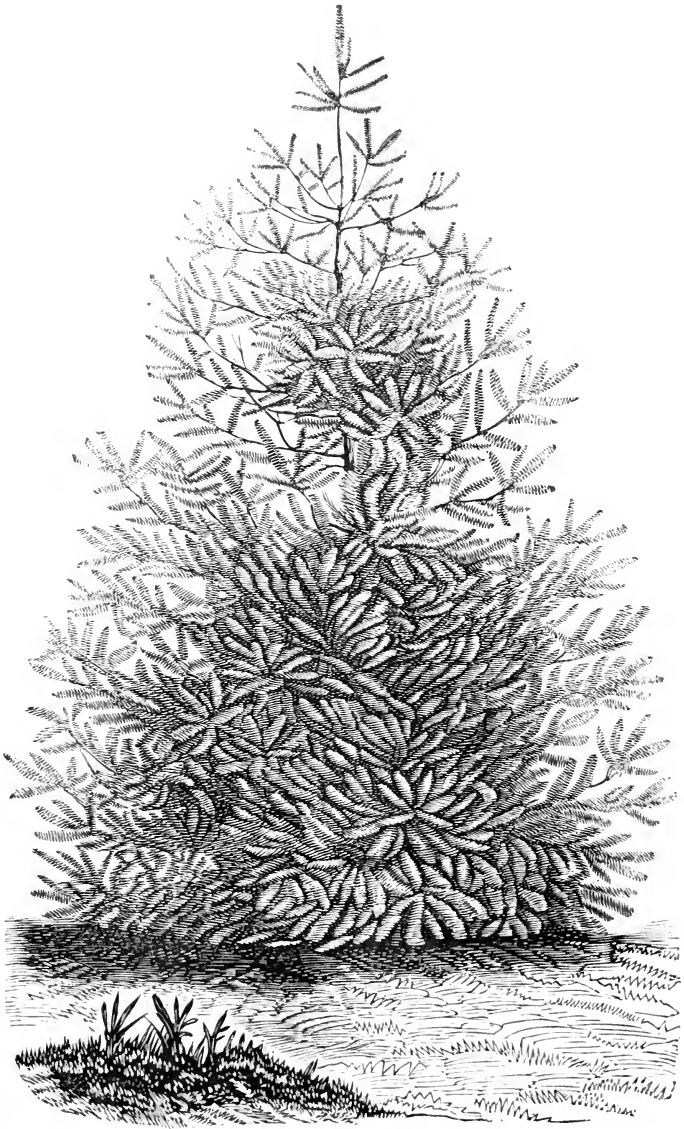
[That leaves which have become brown, and therefore nearly useless, so far as regards secreting nutrition for the embryo buds, are better removed, there can be no doubt; indeed, we think in all cases, and especially with plants over two years old, removing the old leaves immediately the fruit is gathered is good practice. The young leaves, which are formed immediately, possess much more active powers of assimilation than those removed; and from the habit of Strawberries forming young leaves and roots simultaneously, a fresh growth of roots accompanies the new growth; and as the beds are dressed over at the same time, we see a cause of success in what at first sight appears wrong. There can be no doubt but that the number of years which Mr. Lydiard's beds keep on bearing may be attributed to the vitality infused into his plants through the second crop of leaves, which continue their secreting power long after the old leaves (if allowed to remain) would have ceased to act. We know Mr. Lydiard well, and a more enthusiastic grower we never met. ED. FLORIST.]

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. XI.

XX. ABIES PINSAPO—THE PINSAPO SILVER FIR.

THIS very distinct and beautiful Fir is found on the mountains of Granada in Spain, at an elevation of 4—6000 feet, where it forms a wide-spreading tree 70 feet high. It was introduced to English gardens in 1838.

The Pinsapo Fir in some respects resembles the Cephalonian Fir of Mount Enos; it has, however, rather larger and more cylindrical leaves, broader at the base than *A. cephalonica*; and one great advantage it has over that species is, that it does not commence growing till late in



ABIES PINSAPO

Height 18 feet.

the spring, and hence escapes the mischief which spring frosts often cause to the young shoots of the Cephalonian Fir and other species which vegetate early. So severe was the visitation of frost in the end of last April to the early growing Conifers, that we have many plants of Cephalonica, Webbiana, Pindrow, and Morinda, which received so great a check that they have made no growth since, and have consequently lost a season. Nor is this all the damage; the strong leading shoots which were killed are replaced by a number of weak ones, crowded together, and we expect it will take another year's growth before they regain strong terminal buds to form good leading shoots. These drawbacks the Pinsapo Fir escapes entirely.

To return to our description: the leaves in Pinsapo are distichous, or arranged on both sides the branches, which are produced in whorls, horizontally, very numerous, and much divided; they are very closely set with leaves, which, in conformity with their arrangement, point in every direction, producing a compact, bushy tree—singular and beautiful. The tree grows slowly, and generally spreads out horizontally faster than it grows in height; it sometimes, too, has a tendency to form several leaders, which should be checked in time. We are of opinion that this Conifer should have rather a richer and heavier soil than some others; it is in all respects hardy, and a most suitable tree for the lawn or pleasure-ground, or even for an architectural tree in some situations, to which its compact, formal growth in some measure would be appropriate.

Our wood engraving is taken from a handsome specimen at Clewer Manor, near Windsor, the residence of Edmund Foster, Esq., who is not only distinguished by his patronage of the Pelargonium, being the raiser of many of the best kinds in cultivation, but likewise possesses a very select collection of Coniferous plants, many of which are fine specimens, of which the *A. Pinsapo* we now figure is one; in reference to this tree we extract the following from Mr. Foster's letter: "Pinsapo was planted by me from a very small pot, ten years ago, and is now a plant of beautiful growth, of the height of 18 feet. I find it perfectly hardy, and not hurt by late frosts, from making its wood late."

XVI. ABIES PINSAPO VARIEGATA—VARIEGATED-LEAVED PINSAPO.

Like the species, but with variegated leaves; this plant is rare, but to collectors of variegated-leaved plants invaluable, as a pleasing variety of a very handsome Fir.

POMOLOGICAL SOCIETY.

THE ordinary meeting of the Council took place on the first Monday in October, when the usual business of the Society was transacted. Mr. M'Intosh, of Dalkeith; Mr. Saul, of Stourton Park; and Mr. Adams, of Brompton, were duly elected members. The first extraordinary meeting will take place on the 6th of this month, when an exhibition of hardy fruits will take place, and we invite all our readers to send

anything they may have in the way of Apples and Pears to the Society for the purpose. It should be remembered that good and fine specimens are not all that the Society requires; it wants to see the same kind of fruit under every condition; and as much difference exists in the qualities of the same kinds of fruits, inferior specimens, if accompanied by a full description of the soil, particulars of culture and exposure, will be equally valuable to the Society, as furnishing it with evidence of what to avoid in recommending their future cultivation.

SOUTH BUCKS HORTICULTURAL SOCIETY.

THE above exhibition was held at Slough on the 19th of September, and did not vary much from our best provincial shows in general; but occurring about the height of the Dahlia season, and Slough being *rather* celebrated for that flower, we propose giving some few particulars for the information of those readers more especially interested in its culture.

Commencing with seedlings, of which there was a great number, filling a large room of themselves—First-class Certificates were awarded to Mr. Drummond, for Bessy, a full-sized light yellow, of good form; this is a fine Dahlia: to the Rev. Charles Fellowes, for Pre-eminent, a deep purple, large and fine form, fully described by us in the report of the Brighton show: to Mr. Rawlings, for Annie, lilac, one of the blooms of the three exhibited being of the most perfect form: to Mr. Turner, for Espartero, bright crimson; this is a very deep, finely formed flower, resembling Sir C. Napier in some respects, but of a different colour: to G. Holmes, Esq., for Ringleader, ruby colour; two blooms of this variety were shown in excellent condition: to Mr. Keynes, for Ruby Queen, ruby rose, a pleasing flower, of medium size: and a second-class Certificate to Cossack (Fellowes), a bright orange scarlet, a full-sized flower, with handsome close centre.

Two first-class Certificates were awarded for Fancy varieties Miss Frampton (Rawlings), purple and white, shown in good condition, and Comet (Keynes), a striped flower, slightly tipped, not a large flower, but of good form. There were several other seedlings exhibited, possessing considerable merit. The Nigger (Fellowes) was one of these; a full dark flower, almost black—and Diadem, another of Mr. Fellowes' flowers, medium sized dark maroon; Constancy (Hopkins), yellow, tipped with red; Empress (Prockter), French white, slightly tinged with purple. The principal prizes were competed for by amateurs; these were nobly contested, twelve stands being staged for the six prizes, the first of which was carried off by Mr. J. Robinson, Pimlico; 2nd, Mr. J. S. Prockter, Bermondsey; 3rd, Mr. Jeffrey, Hedgerley; 4th, John Sladden, Esq., Ash, next Sandwich; 5th, Mr. Weedon, Hillingdon; 6th, Mr. J. Cooke, Notting Hill. Six Fancy varieties: 1st, Mr. Robinson; 2d, John Sladden, Esq.; 3rd, Mr. J. S. Prockter. In the open class there were five stands of 24 blooms each; 1st, Mr. C. Turner, Slough; 2nd, Mr. Jeffrey, Hedgerley; 3rd, Mr. Drum-

mond, Bath. The varieties exhibited were those that have generally been in the winning stands reported by us at several other exhibitions this season, and would not be interesting if repeated here.

Among miscellaneous subjects, a collection of fruit, from the Royal Gardens, Frogmore, was especially prominent. Peaches and Pears of the best quality, and a basket of Prince of Wales Strawberry, of the finest quality, such as we should look for in the early season, and these *from plants forced in the spring and now planted in the open ground*; both quantity and quality were all that could be desired. Mr. Bousie, of Stoke Park Gardens, sent excellent specimens of Vines in pots, loaded with fine fruit; and F. Edwards, Esq., of Bulstrode Park, contributed a select collection of orchard house productions, showing considerable skill in their cultivation. From the gardens of R. R. Clayton, Esq., came Peaches and Plums, that carried off some first prizes, and Mr. Simpson, gardener at Stoke Farm, took a first prize with some superb bunches of the true West's St. Peter's Grape. Mr. Fleming, from Cliveden, had the first prize for six well-grown specimen plants; and the first prize for cut flowers, being six beautiful bouquets. Mr. Wilkinson, of the Rose Nurseries, Ealing, took a first prize with cut Roses; and Mr. C. Turner was first with Verbenas, Hollyhocks, and Pansies. Several other subjects were exhibited, which we regret not having space to notice.

NOTES ON THE GENUS PENTSTEMON.

THERE is nothing among hardy herbaceous plants that is more suitable or better adapted for beds or borders, nor anything that makes a better display of showy coloured flowers during summer and autumn, than many of the species of Pentstemon. They are handsome flowering plants, with a good compact habit, and either for large or small gardens, where good herbaceous plants are at all esteemed, these should not be neglected. While the generality of this tribe are now past flowering for this season, and fast dying down, most of these are still wearing an aspect of summer, and are as fresh and gay as they have been for some months past. No plants are cultivated with greater facility than Pentstemons in a warm light dry soil, which suits them best; many of them thrive well planted on artificial rockwork, more especially those of a more creeping habit. To have them to flower chiefly at the end of summer, and during autumn, pinch off all the tops of the young shoots in the early part of summer, which will cause them to break back, strengthen the plants, and retard their flowering season until further on in the summer. The annexed list contains all the best kinds at present cultivated at Kew, and which, with a very few exceptions, are now (October 18) in full flower, and to all appearance will continue for some time to come:—

PENTSTEMON ELEGANS. This is a very handsome flowering plant, of a neat habit; grows a foot and a half high. The flowers are of a light pinkish red.

- P. ROSEUS.** A very pretty flowering kind, with a habit similar to *elegans*. It grows a foot to two feet high, and has flowers of a rosy red.
- P. PULCHELLUS.** The aspect and habit of this is similar to the preceding ones. It grows about two feet high, and has flowers of a bright rosy red.
- P. VENUSTUS.** A beautiful and very compact growing kind, attaining the height of a foot and a half. The flowers are of a rose colour, or bright purplish red.
- P. CAMPANULATUS.** This has a compact close habit; grows a foot and a half high. The flowers are bell-shaped, and of a purple red.
- P. ATROPURPUREUS.** Is a very showy flowering species; grows about two feet high. The flowers are of a bright purple red.
- P. CLOWESI.** A very elegant flowering kind, of somewhat straggling habit. It grows a foot and a half high; has large bright red flowers, with a white throat.
- P. BUCKI.** This is very similar to the last,—attains the same height, has larger foliage, and larger flowers, which are of a bright rosy red, with white inside.
- P. GENTIANOIDES.** Is one of the large flowering kinds; grows a foot or two high. The flowers are of a dark red, white inside.
- P. G. var. HARTWEGI.** This is a beautiful flowering variety. It grows about a foot and a half high, and has flowers of a bright red.
- P. G. var. McEWENI.** This has a close bushy habit; is an excellent border plant; grows a foot or more high. Has good moderate sized flowers, of a bright purple red, white within.
- P. HARTWEGI var. VERPLANKI.** A very showy flowering kind; grows a foot and a half high. Has very large flowers, which are of a bright rose colour, white inside.
- P. H. var. SHEPHERDI.** Is one of the best of the tribe. It grows a foot and half to two feet high; has large bright red flowers, white inside.
- P. ALBIDUS.** A very interesting species; grows a foot and a half high; has good moderate sized white flowers, which, with the other bright rich coloured kinds, form an admirable contrast.
- P. ATROCERULEUS.** A most beautiful flowering species; it attains the height of two or three feet, is an abundant bloomer. The flowers are of good moderate size, and of a bright purple blue, white inside.
- P. CONNATUS.** A rather coarse-looking species, about a foot and a half high, with soft, hairy leaves and bell-shaped light purple flowers, white within. This is not usually a very free flowering species, but a useful border plant.
- P. NITIDUS.** A dwarf-growing species, about half a foot high, having rather pretty light purple flowers, which are chiefly produced in summer.
- P. PROCERUS.** This species resembles the last, is a dwarf-growing plant, about six inches high, with lilac or pale purple flowers, which are produced in spring.
- P. ARGUTUS.** This is one of the best of the genus, but requires to be often propagated, as it is apt to soon dwindle away; it grows a foot or more high; the flowers are very pretty, and of a bluish purple colour.
- P. CONFERTUS.** An uninteresting species, about a foot high, with small, insignificant light flowers, tinged with purple.
- P. WRIGHTII.** Is a very conspicuous-looking plant, about a foot and a half high, with large, smooth, and rather glaucous leaves, and pinkish red flowers.
- P. BACCHARIFOLIUS.** This is a very distinct species, of a sub-shrubby habit, a foot or more high; it has small leaves, and pinkish red flowers, which are in perfection in summer.
- P. PUBESCENS.** A pubescent species, about a foot and a half high, with light purple flowers, in perfection during summer.

- P. *LÆVIGATUS*. An interesting species, a foot and a half high, bearing light purple flowers in spring.
- P. *HIRSUTUS*. This species grows from one to two feet high, has rather large leaves, and light purple flowers, in perfection during summer.
- P. *DIFFUSUS*. This is an unattractive species, of a rather coarse habit; grows about a foot and half high, and has small purplish red flowers.

J. HOULSTON.

ON WINTER PLANTING FLOWER GARDENS.

HOWEVER gorgeous the display which well-arranged flower-gardens make from the end of June to October, a considerable part of the year, during which out-door enjoyment is coveted and enjoyed, passes away without there being anything to attract the eye, except the mere outline of the naked beds. That there are many exceptions to this I admit; and as I should like to see them become general, I give you my ideas on the subject, for insertion in the *Florist*.

I do not see why the flower garden should not be as interesting during winter, and present as gay an appearance during spring, as later in the season; to be sure it is not possible to get up such a blaze of colour in March and April as can be done in August; but still much may be done towards it; and there is a freshness and brightness about spring flowers which make them perhaps more really delightful than summer ones. Besides, most of our spring flowers have been associated with us from our very childhood; and although great improvements have taken place in many of them, and there are more numerous varieties, with new names and brighter colours, yet the resemblance to the pets of our boyish days is not entirely obliterated, and such things as Heartsease, Windflowers, Crocus, Daffodil, Hepaticas, Tulips, Polyanthus, &c., still hold their place in the list of modern garden plants.

But to my subject: I must now suppose the summer-flowering plants destroyed or out of bloom, and that it is intended to make up the beds to look interesting during winter, and gay in the spring. It now becomes a point to consider how this can best be effected. In the first place, where beds exist without any particular arrangement, the best way will be to half fill them with a mixture of such dwarf shrubs as will suit the purpose, taken from a list I will append; planting them sufficiently apart to allow for Anemones, Tulips, Narcissus, &c., or early-blooming herbaceous plants, to grow freely between them. The beds will be further improved by an edging of low-growing bulbs (as Crocuses), or Heartsease, or similar growing plants. The shrubs will give the beds a cheerful appearance during winter; and on the approach of spring they will daily become more enlivened as one thing after another creeps into bloom. But for gardens laid out in the geometric style something more than this should be attempted; with the plan before you each bed should be marked with its appropriate colour, carefully contrasted throughout, so as to harmonise as a whole. In most designs there are what may be termed neutral beds, or beds dividing the whole design into separate patterns; now these and the

central beds will, generally speaking, be suitable for planting entirely with shrubs, which will sober down the colours of the beds devoted to flowering plants alone; for we must recollect that most spring flowers, as the Crocus, Hyacinth, Tulip, &c., show but few leaves while they bloom, and consequently there is nothing to shade down the colour, as is the case with summer-flowering plants, which have more foliage; and to remedy this defect, I have sometimes made use of *Omphalodes verna* for covering the soil between early Tulips and Hyacinths, with good effect. Where the design is large, and contains a number of beds, the outside ones may likewise be filled with such low shrubs as dwarf hardy Heaths, *Polygala Chamæbuxus*, *Daphne Cneorum*, and similar things, bearing in mind that the plants are placed in symmetrical order, according to the shape of the beds; and that the complementary ones should be filled with the same kind of plant, to preserve the unison of the whole design. Where the beds are very large—too much so to plant with one kind of plant—it will be found preferable to plant alternately a row of the plant or bulb selected, and a row of dwarf shrubs; in this case the shrubs must be sufficiently low to admit the flowers of the bulbs, &c., to be fully seen; and in all cases both kinds of plants should be planted from the outside towards the centre, taking the shape of the bed. I have used gold-striped Hollies and Yews, instead of flowering plants, and these, when surrounded with darker-leaved shrubs, produce a pretty effect in the winter.

To carry out this winter embellishment a reserve ground of greater or less extent, according to the quantity of plants to be grown for the purpose, is indispensable, and where the stock during the summer should be kept. To enable the shrubs to be moved when wanted, without injury, they are usually kept in pots plunged in the ground; but if a poor sandy or peaty soil can be selected, nearly all the shrubs, &c., may be grown in the free soil. My practice is to well cut in both root and top, when bedding them out for the summer, as the object is to have low, healthy plants, well furnished with numerous roots, and not strong-growing specimens; this practice answers the purpose, and I have found no difficulty in moving even gold-striped Hollies, the dwarf-growing *Arbutuses*, *Pernettyas*, and other rather shy plants at any season. When grown in this way, a year or two's training will make them answer much better than growing them in pots; but a light sandy soil is required, which, if not found naturally, should be made so. As most of the bulbs, &c., will have finished their growth before the time arrives for removing them, they may be taken up and dried at once, and afterwards kept in dry sand or boxes till wanted again. Any late-blooming *Narcissus*, *Anemones*, or *Tulips*, whose foliage is not fully ripened, when the beds are wanted, must be carefully lifted with a small handfork, and laid in in beds in the reserve ground, to ripen off. *Scillas*, which are among the very prettiest spring-blooming plants we have, should always be kept in pots, and when out of bloom may be taken up and placed in the shade of a hedge, or wall, to ripen their leaves. To get *Anemones* and some kinds of *Narcissus* to bloom early, they will require being in the ground before, perhaps, the beds are cleared to receive them; these should be potted when they

show indications of growth, and plunged in the open ground till the beds are ready to receive them.

The preparation made for the usual summer occupants in the spring will amply suffice for the winter plants, with some trifling additions, the beds being merely cleaned for planting the shrubs. The Heaths should have a little sandy peat put round their roots, as may one or two other Heath plants, where such are used; for the bulbs an admixture of leaf-soil and sand should be substituted, when the soil is at all strong, and a little may be placed round the bulbs in all cases; in severe frost a little rotten tan over the surface will prevent any injury to the roots, which are most susceptible of harm from frost when commencing to grow.

Those who have never seen a garden in March, April, and early in May arranged and planted in the way described, can hardly have an idea how really beautiful they are at that season. The various bulbs give us every shade of colour required to produce a striking effect; and as they bloom nearly at the same time, they only require a skilful hand to throw them into such combinations of colour as cannot fail to please. I may add, as a strong recommendation for a trial, that the shrubs required, being small, will not be very expensive; and as they grow too large for one purpose they are sure to suit some other; or in other words, they will grow, as the nurserymen say, "into money," while the cost of the bulbs will be trifling, compared with the effect produced; and when once a stock is obtained a small annual addition will keep them up at little cost.

In the list below I have only given the colours of the Hyacinths, &c.; many beautiful varieties, however, in each colour abound, both in Hyacinths and Crocuses. The bulb lists of the trade will afford ample information on this head.

Having opened the subject, I hope others of your readers will favour us with their opinions and experience in this department of gardening.

LIST OF EVERGREEN AND DECIDUOUS SHRUBS,

SUITABLE FOR WINTER DECORATION.

Andromeda floribunda	Daphne Laureola
„ calyculata, &c.	„ Mezereum
Arbutus Unedo and variety	Erica mediterranea
„ mucronata	„ stricta
„ siberica, &c.	„ herbacea
Aucuba japonica	„ carnea, and some others.
Alaternus, broad and narrow-leaved	Empetrum nigrum
Berberis aquifolium and many others	Escallonia rubra
Calycanthus floridus	Euonymus, gold and silver striped
*Chimonanthus fragrans	*Forsythia viridissima
Cotoneaster microphylla, and other species	Garrya elliptica
Cupressus sempervirens	Hedera arborea
„ macrocarpa	„ golden-leaved
„ Goveniana	„ variegated silver
„ thyoides variegata	„ palmata
Daphne Cneorum	Ilex aquifolium and vars.
„ pontica	„ gold and silver striped
„ hybrida	*Jasminum nudiflorum
	Juniperus communis

Juniperus, upright Irish
 „ chinensis
 „ recurva
 „ pendula
 „ squamata
 „ virginiana and var.
 „ Sabina and var.
 *Magnolia conspicua
 * „ Soulangeana
 Myrica gala
 *Persica, double flowering Peach
 * „ double flowering Almond
 Phillyreas, all the species
 Polygala Chamæbuxus
 Pyrus japonica
 „ white and double red
 *Rhodora canadensis
 Rhododendron dauricum, all the
 early-flowering kinds
 *Ribes aureum
 * „ sanguineum and var.
 * „ speciosum
 Ruscus racemosus
 Taxus baccata
 „ gold and silver striped
 „ hibernica
 Thuja siberica
 „ orientalis
 „ aurea
 Ulex, common double flowering
 Viburnum Tinus, &c.
 Vinca major and minor vars.
 Yucca gloriosa, &c.

 BULBS.
 Anemone appennina
 „ single garden
 „ double ditto
 Crocus in many varieties
 Crown Imperial
 Cyclamens, the early flowering kinds
 Dog's-tooth Violet

Fritillarias
 Hyacinths in many varieties
 Jonquils, all the kinds
 Narcissus, the early flowering kinds
 Tulips ditto ditto
 Snowdrops
 Scilla, all the early flowering
 Winter Aconite

HERBACEOUS PLANTS.

Adonis vernalis
 Alyssum saxatile
 Aquilegia canadensis
 Arabis alba and others
 Auriculas, in variety
 Bellis, Daisy, common; French vars.
 Cheiranthus Marshalli
 Gentiana acaulis and verna
 Heartsease
 Hepaticas, all the species
 Helleborus niger
 Iris lutescens
 „ pumila
 Omphalodes verna
 Phlox verna
 „ subulata
 „ nivea
 „ divaricata
 Primula altaica, double Primroses,
 in variety
 Polyanthus, ditto
 Sanguinaria canadensis
 Saxifraga, several
 Tussilago fragrans
 Veronica saxatilis
 Viola, blue and white Violets
 „ tree ditto
 Wallflowers in vars.

Various early flowering annuals to
 be sown in September, in pots,
 and transplanted out in October.

* Those marked * are deciduous.

I may have omitted several useful plants, but a selection only from
 the above will insure a succession of bloom, during mild weather, from
 January to May, at which time the beds will require to be emptied to
 prepare them for the summer plants. As I have commenced, as I have
 already hinted, I hope some other of your correspondents will give us
 their experience in this department.

W. B.

CALENDAR FOR THE MONTH.

Auriculas. Keep the plants in a northern aspect for another month
 at least; they should be elevated above the ground. Care must be
 taken not to overwater them at this season. The plants will require
 to be looked over frequently, for the purpose of removing all dead foliage
 as it appears. Auriculas are not interesting plants at this season;

they must not, however, be excited into growth now ; on the contrary, they should be nearly at rest.

Camellias and Azaleas. Keep cool and airy, unless early blooms are desired. A few free-blooming Azaleas may be placed in a moderately warm house, if wanted to bloom by Christmas ; the whites, triumphans, and hybrids from indica are best for blooming early.

Carnations and Picotees. We have had a fine autumn for these plants ; they will be very easily wintered, compared with the trouble they have been during the last two seasons ; all should be established in the small pots by this time. This being the case, and the plants healthy, their management consists in the merest routine for the next three months. Plenty of air but not much water ; the hardier they are kept the better ; damp must be avoided, and the plants must be kept perfectly clean.

Cinerarias. These plants will now be growing very fast ; fumigate if aphides are detected : this should be done with care, the foliage being very tender ; burning a little tobacco two successive nights will be most effectual. Those for winter flowering will now be throwing up their blooming spikes, and may be selected from the general stock in the pit, and placed in front of the greenhouse. Shift any part of the young stock that is filling the pots with root.

Conservatory. As the entire stock is now in the house, air must be given on all favourable opportunities, to harden the plants well before winter, it will help to prevent mildew, and by applying a little fire on wet days at the same time, a close damp air will be avoided, at all times inimical to the welfare of plants. Chrysanthemums should be brought in as they get into bloom, and with Epiphyllums, Salvias, &c., will help to make a good display through the month. Another plant, *Fuchsia serratifolia*, is one of the gayest things possible at this season, and should be grown largely for an autumn-blooming plant. Violets, *Mignonette*, &c., are likewise indispensable.

Cucumbers. Keep a steady bottom-heat, as recommended last month ; the top heat should not be much under 70°. Air at all opportunities. Keep the Vines thin and well exposed to the light. Surface the pots or boxes occasionally, and water with liquid manure ; if mildew appear, dust a little sulphur over the spots, and keep rather a drier heat for a few days ; fumigate for aphides.

Dahlia. Storing the roots, both pot and ground, should be done at once, if a dry time. The roots keep all the better by being placed in an open shed for a few days before being finally stored for wintering. Drain any water that may be in the crowns of the roots. If a little soil is left about the tubers so much the better, if in a dry state.

Flower Garden and Shrubbery. What remaining beds continue to make a show of bloom should be preserved, the rest should be cleared away at once, to make room for Anemones, Dutch bulbs, Crocuses, &c. Continue to pot choice plants for next year. Much of the beauty of the garden early next season will depend on the care which is taken of Geraniums, standard Fuchsias, and a number of other things. When the rubbish is cleared away, well sweep the Grass, and put the walks in good trim, by frequently rolling them, for the winter. A capital

paper on the winter planting of flower borders is given in the present number.

Forcing Houses. Where Grapes are wanted in April, the sashes should be at once put on, and the borders, if outside, covered with new warm leaves, a foot or two thick, which may be thatched, to keep them dry, and from blowing about. Dry Fern or stable litter will answer the same purpose; we ourselves prefer leaves. The temperature must be very mild at first—45° is ample by night, which may be kept up without fires for some time; in three weeks a little may be put on by night, and during wet or very cold days; as leaves can be obtained, it will be a good plan to cover the whole of the early Vinery borders and thatch them; they will keep them warm and dry through the winter.

Hardy Fruits. All kinds of wall, orchard, and bush fruits may now be planted, and the preparation of new borders proceeded with by removing all or a part of the old soil; do not work the new soil, however, when in a wet state. Mind the borders are shallow and well drained, the loam of medium texture, or rather inclined to heavy than light, and use none or but little manure; pruning may be commenced.

Heaths and Epacrises. Properly speaking, these plants should have a house to themselves; for they neither arrange well nor yet thrive with other plants. At this season they will require abundance of light and air. Do not apply fire-heat to them unless the frost is very severe, and we may say at once none will be required this month, unless by day, during a continuance of wet weather.

Hollyhocks. Now is the best time for procuring cuttings of these from the crown of the root, for the reasons that they strike more readily and make the best plants. The summer struck cuttings will be filling the pots with roots by this time, and should be repotted. Strong early plants will winter in almost any situation, if the season is not too wet.

Kitchen Garden. It is now too late for planting. What remains in the way of Cabbage, Lettuce, &c., will be better left till spring, unless the weather is very mild. However, there are various things required at this season; in the first place, never allow any ground to be idle; dig or trench it immediately it becomes vacant. Continue to hoe between late planted crops—Cabbage, Winter Lettuce, Spinach, &c.; a good dressing of soot on a wet day will do them a great deal of good.

Mixed Greenhouse. As the plants are staged for the winter, let them have a surfacing of fresh soil; give air daily, and apply fire occasionally when wet, to dry up damp, and make the air of the house healthy. But little watering will be necessary at this season, except to such plants as have been a long time without shifting; let the watering be done in the morning, so that the house may get dry before closing up time.

Orchids. Unless any plants show indications of a new growth, the moderately cool and dry treatment must be persevered in; such, however, as are commencing to push must be potted at once and placed in more heat. Plants in bloom keep in a dry part of the house.

Pansies. These either having been potted up or planted out for blooming, as previously directed, will require but very little attention for a time. Those in frames should be grown as hardy as possible, by

keeping the lights off whenever the weather is fine, tilting them back and front at other times. Cuttings may still be put in for the second or summer bloom.

Pelargoniums. Cleanliness during the winter has much to do with the successful cultivation of the Pelargonium. The glass, stage, and every part of the house should be clean, as well as the pots and everything about them. The house should also be kept dry, and not too cold at night. Plenty of air on other occasions, so that cold draughts are avoided; give the plants plenty of room, keep clear of dead leaves and green-fly, and success will be tolerably certain.

Pines. Let the fruit now ripening be fully exposed to the light, to give it colour and flavour. Very little water will be required, except to those just commencing to swell their fruits. Keep the stock to show fruit at Christmas dry and cool; the young stuff grown in pits, &c., should likewise have the top moisture lessened by some means, as, if not prevented, too much damp at this season has a tendency to rot the hearts in the winter. Protect from cold by night by sufficient coverings, and let the linings, &c., be maintained, so as to allow a mean temperature of 60° to the plants. Where hot water is laid on, keep the same heat by applying fires.

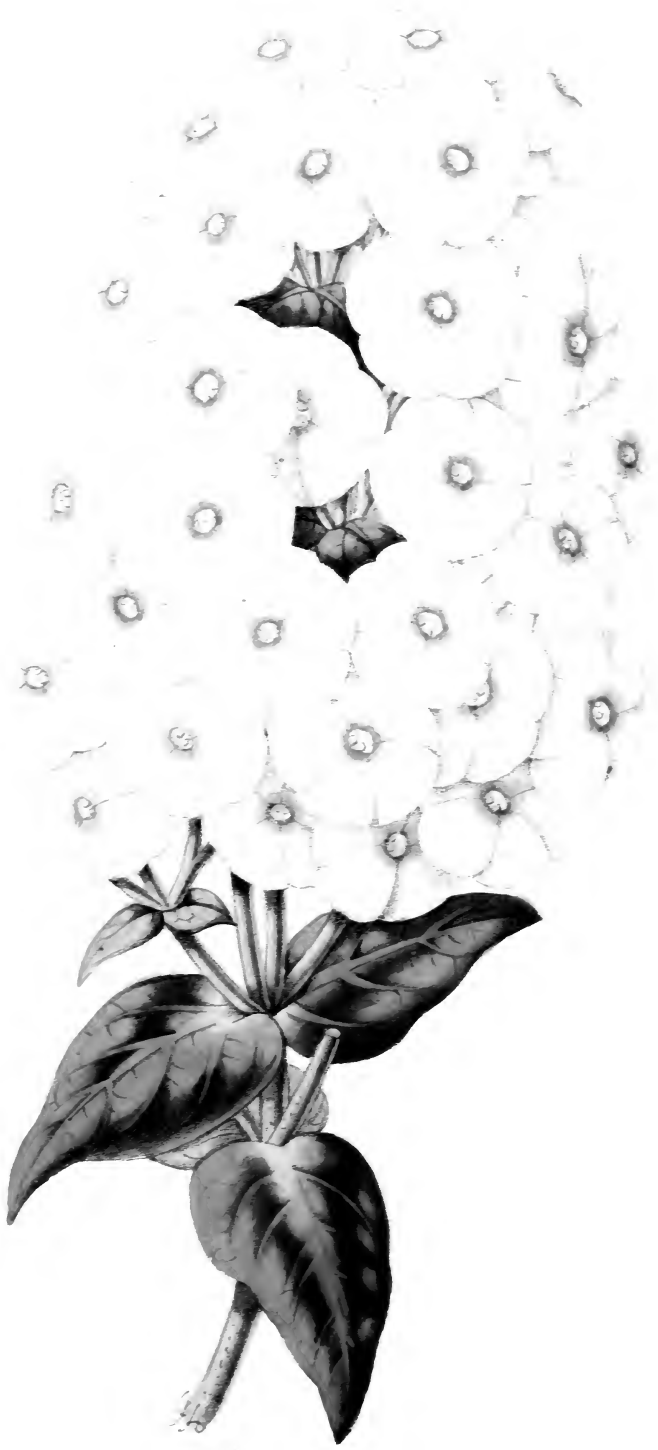
Pinks. Examine the beds occasionally for grubs, which are often very destructive at this season to the plants. If a few plants of each variety have been potted as recommended last month, they will come in very useful for filling up any vacancies made by these insects or other causes. Loosen the surface of the beds when dry, to prevent the soil from becoming green and sour.

Roses. If not already looked over, to decide on renewals and additions, lose not a day. Do not allow one ill-grown plant to stand in a conspicuous situation; there are always plenty of spots where such unfortunates may be safely consigned, and not be doomed to blush unseen. Such deformities should not be allowed to disfigure an otherwise charming group. The severity of the last winter urges every precaution being taken; a good covering of common moss for beds of Tea-scented and other delicate varieties on their own roots is one of the best, and removing worked plants of tender Bourbons, &c., either to a well-ventilated shed, or to a sheltered nook, covering their heads with Frigi Domo (certainly the best substitute for Russian mats) is without doubt safest.

Stove Plants. The object here will be to keep up as gay an appearance as possible during the dreary months of winter. All the large specimen Clerodendrons, Allamandas, Echites, Achimenes, &c., should be removed to any spare house where a little heat is kept up, to winter; this will give room for the various plants which, having been struck last spring, and grown on through the summer, will now be in condition to bloom freely through the winter; let them be fully exposed to light.

Tulips. Plant the first favourable opportunity, choosing a fine dry day, when the soil is in good order. The bed may be protected for a short time by any temporary covering, if the weather is wet, to keep the soil dry till a good day arrives. The offsets should have been planted in October. Use fine sandy soil about the roots.





PHLOX, "COUNTESS OF HOME."

(PLATE 95.)

THIS beautiful hardy herbaceous variety, which we have figured, was raised by Mr. Cossar, gardener to Lady Anne Hay, King's Meadows, Peebleshire, from seed gathered and sown promiscuously. It grows to the height of two feet, stem strong and erect, with dark green shining foliage, and large pyramidal head of blooms; flowers white, with a distinct dark crimson centre, form perfect, blooming from the beginning of August until the end of September. It will be sent out in October, 1855, by Messrs. Downie and Laird, nurserymen, Edinburgh.

As the Phlox is one of our best border perennials, we have solicited from Messrs. Downie and Laird, and Messrs. E. G. Henderson and Son, of the Wellington Road Nursery, St. John's Wood, London, lists of some of the best varieties in cultivation, and have received the following returns:—

- Abdul Medschid Khan, white, with rose centre; extra fine.
- *Admiral Linois, rose, with crimson centre.
- Alba perfecta, large shining white.
- Alice Allain, French white, crimson eye; fine.
- Amabilis, white, carmine eye; fine.
- Antagonist, pure white; fine form.
- Alexandrina, white, with deep rose centre; extra fine.
- *Atropurpurea, bright rosy crimson.
- Beauty of Milrig, large white, yellow eye; fine.
- Colonel Dundas, dark purple; extra fine.
- *Candidissima, white, with crimson centre.
- *Comte de Talleyrand, deep rosy crimson.
- Countess of Home, white, with dark crimson centre; extra fine.
- Criterion, rose and white, beautifully striped; fine form.
- *Dr. Leroy, dark rosy crimson, fine truss.
- Eliza, shaded rosy lilac; extra fine.
- Etoile des Belges, white, with carmine centre.
- Eyebright, delicate blush; fine form.
- General Brea, rosy scarlet; fine form.
- *Henriette Castel, shaded bright rose.
- *Jeanne Rouillard, white, with rose centre.
- *Lychmiflora, deep rosy purple, crimson centre; fine.
- Leonida, large rosy lilac; extra fine.
- Madame Cousin, white, with shaded carmine centre; extra fine.
- Madame Brion, beautifully striped; fine form.
- *Madame Destrees, mottled violet.
- *Madame Cambecceres, lavender, with light centre.
- *Madame Laesc, pink, shaded with white.
- *Mademoiselle Victorine Vatable, white, shaded with lilac, crimson eye.
- *Mademoiselle Albertine, delicate rose, white eye.
- *Marie Gros, extra fine white.
- Masterpiece, rosy purple; extra fine.
- *Moubay, white, pink eye.
- Monsieur Lefevre, shaded rosy lilac; fine.

Penduiflora, dark rosy purple.

President McCarel, purplish crimson; extra fine.

*Queen Victoria, white, with rose centre.

*Roi Leopold, rose and white, striped.

*Rosine, lilac, with white centre.

Spenceri, dwarf compact rosy lilac.

*Viscomte Albert de Beaumont, rose, with crimson eye; extra fine.

Of the above, *Lychniflora* and *Roi Leopold* were in Messrs. Downie and Laird's list. Those marked with an asterisk formed Messrs. E. G. Henderson and Son's list, and are chiefly new varieties.

POMOLOGICAL SOCIETY.

THE first extraordinary meeting of this Society was held on the 6th ult., at the rooms of the Society, Bedford Street, Covent Garden, for the purpose of exhibiting collections of fruits. The rules of the Society, which we published in the *Florist* a short time back, will inform our readers that the objects the Society seeks to establish by these meetings are to show what effects the various soils and climates of Great Britain have on the same kinds of fruits, for the purpose of comparing their various merits under each condition, and consequently their adaptability, or the reverse, to each; to settle and determine the nomenclature of fruits, by a close scrutiny of specimens from diverse situations at the same time, so as to see them under all the appearances which difference of soil and climate is known to produce in fruits; and to examine and report on new and seedling varieties. In reference to all these objects the Society has abundant cause for congratulation, no fewer than 1200 specimens, including Pears, Apples, Grapes, Peaches, and Quinces, were displayed from all parts of the kingdom and the Channel Islands. The first attempt at exhibiting the pomological riches of Great Britain was likewise indicative of the extreme want of such an institution; the numbers of wrong names, even with some of the largest growers, show the confusion in which our most important classes of fruits now are in respect to their nomenclature; and the earnestness with which information on this head was asked of the Society, points out that no previously-existing society has met the requirements now sought to be obtained from this; nor will they, or the public at large be disappointed. At this, the first meeting of a society which has only had existence a few months, and with a very short notice of this particular meeting, the cultivators responded to the call of the Society beyond its expectations, and exhibited an anxiety to know more of the fruits which belong more especially to the middle and lower classes; and we shall not be wrong in anticipating a wide sphere of usefulness, involving important interests in the future operations of the Society.

We scarcely dare venture to give more than a mere outline of what was exhibited on the occasion; and as the official judgment of the censors will be published in the first number of the Society's Transactions, and a full report will then be given of the respective qualities of

the fruits, our readers and the exhibitors themselves must wait its appearance for particulars. Among the collections which struck us as very fine, was one sent by Mr. M'Ewen, of Arundel Castle. Here were Pears and Apples, from walls and standards, large, handsome, and finely coloured. Another sent by John Elliott, Esq., of Trisillian, Devon, had remarkable specimens of good growth, possessing that fine peculiar colour characteristic of continental grown fruit. From G. Unthank, Esq., Limerick, Ireland, were some extraordinary Pears—one *Beurré Rance* weighed 18 oz., a *Beurré Diel* 14½ oz., *Easter Beurré*, 13 oz.; *Duchess d'Angouleme*, 17 oz., and others equally large, demonstrating clearly that the Irish soil and climate (in the south at least) is quite equal to any part of England, or even the Channel Islands, for the growth of Pears. Our correspondent, Mr. Saul, of Stourton Park, Knaresborough, sent a collection of 11 kinds of Pears and 48 of Apples; among the latter were fine specimens of *Ribston Pippin* from trees more than a century old, and which were among the first grafted from the original tree, which grows in the vicinity. This collection contained many fine specimens, the fruit finely coloured and cleanly grown. Messrs. Webber, fruiterers, Covent Garden, sent eight dishes of *Guernsey Pears*, very fine, and a dish of the "Mountain" Peach, which they annually import from Holland; they had been gathered a month, but still retained many excellent properties for an October Peach, and are really worth trying in this country. Mr. Rene Langelier, of Jersey, sent 152 varieties of Pears—a valuable collection from a well-known grower, and containing many novelties, for the merits of which we must wait the Society's report. The Rev. Mr. Fox, of Delamere, Cheshire, sent fine specimens of Pears from the not very favourable climate of Cheshire. Mr. Breadley, of Somerleyton, sent a collection excellent in all respects; very large *Blenheim Orange Apples* and *Beurré Diel Pears*, came from Mr. Thoyts, near Reading. Further, Mr. Barrett, of Leeds, furnished a very large collection, including many kinds not grown in other districts. Mr. Lake, of Bridgewater, Somerset, sent a similar collection, but showing a favourable contrast, owing to soil and climate, with the above; both were, however, equally interesting. From Ross, in Herefordshire, was a collection of *cider Apples*, whose beautiful appearance to the eye attracted much attention; unfortunately they were not named. We must not forget Mr. Rivers' seedling Pears, nor yet the much bepraised *Beurré Clairgeau*, from Mr. Wells. Beautiful it was to look at, but it turns out only second-rate; while the rather unpromising looking *Eye-wood* was pronounced the best Pear tasted; and, truly, it has a piquant flavour, unlike any other Pear. Other high-flavoured kinds were *Fondante d'Automne*, *Beurré Superfin*, and *Thompson's*. A large new *Quince*, from Syria, was sent by Messrs. Veitch; seedling white *Grapes*, of a fine amber colour, from Mr. Critolph, Norwich; and an *Apricot Peach* from Col. Salway, M.P. for Surrey. This is a yellow-fleshed Peach, perfectly melting, of delicious flavour; and is the most valuable acquisition we have had in the Peach way for a number of years. We hope to present our readers with a figure of this valuable fruit in an early number.

A RHAPSODY ON A ROSE.

THE title I have selected so perfectly accords with the feeling which prompts this *brochure*, that I may be excused for a piracy, a very amusing article having recently appeared in a gardening periodical under this title.

At the recommendation of a correspondent of yours on new Roses, I purchased plants of Prince Leon last autumn, and looked somewhat anxiously for the blossom of a variety so highly spoken of; but the untoward season just past doomed me to disappointment, as the flowers had but little pretension to the character I had read of it. Knowing, however, how many of our most lovely Roses "shine gloriously only in autumn," I refrained from forming a conclusion, not without reason, as the sequel proves.

On the autumnal branches fine buds were formed, the opening of which I watched with no little anxiety, and on the morning of the 6th I beheld with extatic delight the expansion of its lovely flowers; indeed I quite

"Enchanted watched the opening Rose."

Its colour how lovely! that exquisite Ponceau—best described as a bright cherry colour, although the French call it poppy colour—which we ladies at least know so well. Then its shape how perfect! with petals not so crowded as to exclude the peeping stamens, and of a texture extraordinary for a Rose so Camellia-like and smooth—aye, as the smoothest hand *we* ever possessed; the edges, too, with scarcely any indentation; neither does its perfume belie its form, being equally *recherche*.

Paul Dupuy and my favourite have long been called the gems of the (last) season; and beautiful as I admit the former to be, in my poor estimation it does not even approach my Prince.

'Tis said that "sweetest flowers soonest fade," but here it was quite reversed; for although from the 6th to the 10th we were blest with brilliant sunshine, yet for four successive mornings did I revel in the beauties of this lovely flower; indeed, and not since my first beholding Géant des Batailles have I been so truly charmed in my morning visits to my sweetest pets, my Roses.

Before concluding, a word to those of my sister florists who neglect the early morning to enjoy "these sweetest gems in Flora's train." Let them only be once tempted, and few sunny opportunities will be allowed to escape; for once the dew exhaled and the charm is lost; indeed, many of the more delicately tinted varieties—Rivers' George the Fourth, for instance—are so evanescent as to lose half their beauty when robbed of their dewy spangles.

FLORA.

A SELECT LIST OF FRUITS

FOR THE

SOUTH AND WEST COUNTIES OF ENGLAND.

BY MR. POWELL, ROYAL GARDENS, FROGMORE.

IT having been several times represented to the conductors of the *Florist* that some definite information with regard to the adaptability of certain fruits to certain districts was requisite, I have been induced to compile a list of those fruits that, from experience, I know to be most suited to the south and western districts. To avoid repetition I have, in the enclosed table, so arranged their positions that, at a glance, a person wishing to plant a small garden with Apples, for instance, may, by referring to the column "for small garden," at once see about ten sorts suitable to secure Apples for all seasons, and exactly suited to the wants of a *small garden*. The object I have had in view is to enable any one to plant either a large or very small garden with suitable sorts; and I think by a little attention to the tabular list this object may be attained. Those who seek for information as to the best sorts for *pot culture* will observe notes to that effect.

The abbreviations employed are as follows:—St., standard; Dwf., dwarfs for open quarters; Esp., espalier; T., table; K., kitchen use; Pvg., preserving; S. G., for small gardens; E., east aspect; W., west aspect; N., north aspect; S., south aspect; E. V., early vinery; L. V., late vinery. The month is given in which they usually ripen; still season, soil, and situation, often make a difference of days and weeks—more especially in the ripening of Pears.

APPLES.

NAMES.	When in Season.	Use.	Standards.	Dwarf for open quarters.	For Small Gardens.	For Espaliers.	REMARKS.
Admirable, Small's	Nov. Dec.	K	St.	Dwf.	S. G.	..	
Alfriston	Dec. Mar.	K	St.	...	...	...
Astrachan, Red	Sept. Oct.	T	St.	Dwf.	...	Esp.	
Blenheim Pippin	Nov. Feb.	K.T.	St.	...	...	...	Requires plenty of (room)
Borsdoffer	Dec. Mar.	T	St.	Dwf.	...	Esp.	
Cox's Pomona	Oct. Nov.	K.T.	St.	Dwf.	...	Esp.	Very handsome
Cox's Orange Pippin	Nov. Jan.	T	St.	Dwf.	S. G.	Esp.	Flavour of Ribston
Codlin, Manks'	October	K.T.	...	Dwf.	...	...	(Pippin)
Codlin, Keswick	October	K	St.	Dwf.	...	...	A great bearer
Court Pendu Plat	Dec. Mar.	T	St.	Dwf.	...	Esp.	A sure bearer
Court of Wick	Nov. Mar.	T	St.	Dwf.	S. G.	Esp.	
Cockle Pippin	Jan. April	T	St.	Dwf.	...	...
Dumelow's Seedling	Nov. April	K	St.	...	S. G.	...	Excellent for jelly; keeps good till June
Dutch Mignonne	Jan. Mar.	T	St.	Dwf.	...	Esp.	
Early Red Margaret	August	T	St.	Dwf.	S. G.	...	
Fearn's Pippin	Dec. Jan.	T	St.	Dwf.	S. G.	Esp.	
Golden Harvey	Jan. April	T	...	Dwf.	...	Esp.	Small but very rich
Golden Pippin, Small's.	Dec.	T	...	Dwf.	S. G.	Esp.	Hardy, & good bearer
Do., Franklin's	Nov. Dec.	T	St.	...	...	Esp.	

NAME.	When in season.	Use.	Standards.	Dwarf for open quarters.	For Small Gardens.	For Espaliers.	REMARKS.
Kerry Pippin . . .	Nov. Dec.	T	...	Dwf.	...	Esp.	Requires a dry warm (situation)
King of the Pippins . . .	Jan.	T	St.	...	...	Esp.
Lord Nelson, Kirk's . . .	Dec. Feb.	K	St.	...	...	...
Nonpareil, Downton . . .	Dec. Mar.	T	...	Dwf.	S. G.	Esp.	
Nonpareil, Braddick's . . .	Jan.	T	St.	Dwf.	S. G.	Esp.	
Nonpareil, Old . . .	Jan. April	T	...	...	...	Esp.
Reinette, Golden . . .	Nov. Dec.	T	...	...	...	Esp.
Reinette, Scarlet . . .	Dec.	T	St.	...	S. G.	...	
Ribston Pippin . . .	Nov. Mar.	T	St.	...	...	Esp.
Russet, Powell's . . .	Dec. Feb.	T	St.	...	...	Esp.
Russet, Royal . . .	Nov. Feb.	K.T.	St.	Dwf.	...	Esp.	
Russet, Syke House . . .	Jan. Mar.	T	St.	Dwf.	...	Esp.	

PEARS.

NAMES.	When in season.	Use.	Suitable for walls.	Standards.	Dwarf for open qtrs.	For Small Gardens.	For Espaliers.	REMARKS.
Ananis . . .	October	T	W	...	Dwf.	...	...	New & excellent kind
Baron de Mello . . .	November	T	W	...	Dwf.	...	...
Aston Town . . .	October	T	...	St.	...	...	...	A great bearer
Bergamot, Autumn . . .	October	T	...	St.	...	...	...	Very hardy
Bergamot, Gansel's . . .	October	T	W	...	...	...	Esp.	Plant in dry soil
Beurré, Easter . . .	Dec. Jan.	T	W	St.	Dwf.	S. G.	Esp.	
Beurré Diel . . .	Dec.	T	W	St.	...	...	Esp.	
Beurré, Brown . . .	Nov.	T	W	...	...	...	...
Beurré Bosc . . .	Nov.	T	...	St.	...	...	Esp.	Excellent on standrds
Beurré Rance . . .	Feb.	T	W	St.	Dwf.	S. G.	Esp.	The best late Pear
Bon Chretien, Williams' . . .	Aug. Sept.	T	...	...	Dwf.	...	Esp.	Gather early
Do., Spanish . . .	Nov. Feb.	K	...	St.	Dwf.	S. G.	...	A good baking Pear
Chaumontelle . . .	Jan.	T.K.	W	...	...	...	...	Requires a warm si-
Colmar, Passe . . .	Dec.	T	W	St.	Dwf.	S. G.	Esp.	(tuation)
Colmar d'Aremberg . . .	Nov.	T	...	St.	...	...	Esp.	Gather early
Crassane, Old . . .	Dec.	T	W	...	...	...	...	Requires a warm, dry situation
Crassane, Althorp . . .	Nov.	T	...	St.	Dwf.	...	Esp.	A great bearer
Crassane, Winter . . .	Feb.	T	...	St.	...	...	...	Ripen the fruit in a warm temperature
Eyewood . . .	Dec.	T	W	...	Dwf.	...	Esp.	
Flemish Beauty . . .	Nov.	T	...	St.	Dwf.	...	...	Gather before ripe
Fondante d'Automne . . .	Oct.	T	W	...	...	...	...	(tuation)
Glout Morceau . . .	Dec.	T	W	...	Dwf.	...	...	Requires a warm si-
Incomparable, Hacon . . .	Dec.	T	...	St.	Dwf.	...	Esp.	Very hardy variety
Jargonelle, English . . .	August	T	W	St.	...	...	Esp.	
Louise Bonne, Jersey . . .	Sept. Oct.	T	...	St.	Dwf.	S. G.	Esp.	
Marie Louise . . .	Nov.	T	W	St.	Dwf.	S. G.	Esp.	Hangs well on tree
Monarch, Knight's . . .	Jan. Mar.	T	W	...	Dwf.	S. G.	Esp.	
Ne Plus Meuris . . .	March	T	...	St.	Dwf.	...	...
Napoleon . . .	Dec.	T	W	St.	Dwf.	...	...	Good sort for compote
Seckel . . .	Nov.	T	...	St.	Dwf.	S. G.	Esp.	
St. Germain (Uvedale's) . . .	Dec. Mar.	K	...	St.	...	...	...	Used only for kitchen purposes
Van Mons Leon le Clerc . . .	Nov.	T	W	...	Dwf.	S. G.	Esp.	Very large, excellent
Vicar of Winkfield . . .	Dec.	T.K.	W	...	...	...	...	Very large, good for
Winter Nelis . . .	Dec. Jan.	T	W	...	Dwf.	S. G.	Esp.	(stewing)

PLUMS.

NAMES.	When in Season.	Use.	Adapted for Walls,	For Standards,	For Small Gardens,	For Espaliers,	Dwarf for open qtr.	REMARKS.	
Coe's Fine Late Red .	Oct. Nov.	T	E	Suitable for pot culture	
Coe's Golden Drop .	Sept. Oct.	T	E	St.	...	sp.	Dwf.		
Fotheringham .	August	T	Wall	St.	...	Esp.	Dwf.		
Goliath	August	K	Wall	...	...	Esp.	...
Green-gage	August	T & Pvg.	Wall	...	...	...	Dwf.
German Pruen	October	T	...	St.	...	...	Dwf.
Imperatrice, Ickworth	October	T	N	...	...	...	...
Imperatrice, Blue .	September	T	N	...	...	...	...
Jefferson	Beg. Sept.	T	W	St.	S. G.	Esp.	Dwf.		Forces well
Jaune Hative	July	T	S	St.	Dwf.		Suitable for pot culture
Kirk's Plum	August	T	E	St.	S. G.	Esp.	Dwf.	Ditto	
Lucomb's Nonsuch .	August	T	...	St.	The best for pre- (serving	
Magnum Bonum, wht.	End Aug.	Pvg.	...	St.	...	Esp.	...		
Magnum Bonum, red	August	Psty	...	St.	...	Esp.	...		
Orleans, Wilmot's .	Beg. Aug.	T	S	St.	S. G.	Esp.	Dwf.	Suitable for pot culture, and a good (forcer	
Orleans, Smith's . .	August	T, K	...	St.	Suitable for pot culture	
Reine Claude Violette	Sept. Oct.	T	E	St.	S. G.	Esp.	Dwf.		
Reine Claude de Bavay	September	T	W	...	...	Esp.	Dwf.
Victoria, Denyer's .	Beg. Sept.	T, K.	E	St.	S. G.	Esp.	Dwf.	Forces well	
Washington	September	T	W	St.	S. G.	Esp.	Dwf.	Forces well	

CHERRIES.

NAMES.	When in Season.	Use.	Adapted for Walls,	For Standards,	Dwarf for open qtrs	For Small Gardens,	For Espaliers,	REMARKS.
Adam's Crown	July	T	...	St.	Dwf.	...	Esp.	A great bearer
Belle de Choisey . . .	Mid. July	T	W	...	Dwf.	...	...	Fruit transparent; a moderate bearer (ture
Bigarreau	Beg. Aug.	T	W	St.	...	...	Esp.	Good sort for pot culture
Bigarreau Napoleon .	August	T	W	St.	...	...	Esp.	
Black Eagle	Mid. July	T	W	...	Dwf.	S. G.	Esp.	Extremely rich
Black Heart	Beg. July	T	...	St.	Dwf.	S. G.	...	Requires a dry, gravelly soil
Downton	July	T	W	...	...	...	Esp.	
Early Purple Guigne	Mid. June	T	W	...	Dwf.	...	...
Elton	Mid. July	T	W	St.	Dwf.	S. G.	Esp.	Best white Cherry; good for pot culture
Florence	Aug. Sept.	T	W	...	...	...	Esp.	Hangs well on tree
Kentish	Beg. Aug.	K, P.	...	St.	Dwf.	...	...	Good for drying
Harrison's Heart . . .	August	T	...	St.	Dwf.	...	...	One of the best for forcing or pot culture
Late Duke	September	K, T.	W	...	...	...	...
May Duke	Beg. July	T	W	St.	Dwf.	S. G.	Esp.	
Morello	Aug. Oct.	Pvg.	W	St.	Dwf.	S. G.	...	Forces well in pots
Tartarian, Black . . .	Beg. July	T	W	St.	Dwf.	S. G.	Esp.	
Royal Duke	End July	T	W	...	Dwf.	...	Esp.	

APRICOTS.

NAMES.	When in Season.	Use.	Wall Aspect.	For Small Gardens.	REMARKS.
Breda	Mid. July	Pvg.	E. or W.	...	Will bear as a standard
Frogmore Seedling	End Aug.	T	S.	...	Very late
Hemskirk	End July	T	S.	...	Resembles the Moorpark
Large Early	Beg. July	T	S.	S. G.	
Moor Park	End July	T	S.	S. G.	The best for forcing
Musch Musch	Mid. July	T	S.	...	Small, but sweet and
Shipley's	July	Pvg.	E. or W.	S. G.	Great bearer (prolific)
Royal	End July	T	S.	S. G.	Very rich, and ripens well.
NECTARINES.					
Duc de Telliers	End. Aug.	T	S.	...	
Downton	End Aug.	T	S.	...	Forces well
Elruge	Beg. Sept.	T	S.	S. G.	Forces well
Pitmaston Orange	End Aug.	T., Pvg.	S. or W.	...	Flesh yellow, similar to that of the Apricot ; makes a rich preserve
Roman	September	T	S.	...	
Hunt's Tawney	Mid. Aug.	T	S. or E.	S. G.	Adapted for pot culture
Murray	End Aug.	T	S. or E.	...	Forces well, or for pots
Vermash	End Aug.	T	S.	S. G.	Adapted for pot culture
Violet Hatve	Beg. Sept.	T	S. or W.	S. G.	Forces well
White, new	End Aug.	T., Pvg.	S.	...	Requires a favourable situation
PEACHES.					
Admirable, Walburton	Mid. Sept.	T	S. or W.	S. G.	
Admirable, Late	End Sept.	T	S.	...	
Admirable, Early	End Aug.	T	S. or E.	...	
Bellegarde	Beg. Sept.	T	S.	S. G.	Good for forcing
Barrington	Beg. Sept.	T	S. or W.	...	Very large
Early Ann	Mid. Aug.	T	S.	...	Adapted for pot culture
Grosse Mignonne	August	T., Pvg.	S.	S. G.	Forces well, or for pots
Malta	End Aug.	T	S.	...	
Noblesse	Beg. Sept.	T	S.	...	Forces well
Purple Hatve	Mid. Aug.	T	S. or W.	...	Adapted for pot culture
Royal George	End Aug.	T., Pvg.	S.	S. G.	Forces well, or for pots
Twyford	Beg. Sept.	T	S.	...	

GRAPES.

NAMES.	Colour.	Early or Late Vineries.	Suitable for open Walls.	Adapted for pot culture.	Select for Small Gardens.	REMARKS.
Black Hamburgh	Black	E. & L. V.	S.	Pots	S. G.	The most useful of all black Grapes
Black Prince	Black	L. V.	...	...	...
Barbarossa	Black	L. V.	...	...	...	Will hang a long time without shrivelling
Black Cluster	Black	...	S.	...	S. G.	Good wine Grape
Espersione	Black	...	S.	Pots	S. G.	Good wine Grape
Frontignac, white	White	E. V.	...	Pots	...	
Muscadine, white	White	E. V.	S.	Pots	S. G.	Very early
Muscadine, Royal	White	E. V.	...	Pots	...	
Muscat of Alexandria	White	E. & L. V.	...	...	S. G.	
Muscat, Cannon-hall	White	E. V.	...	...	...
Muscadine, Dunmore	White	E. V.	S.	Pots	...	
St. Peter's	Black	L. V.	...	...	S. G.	An excellent late variety

FIGS.

NAMES.	Adapted for Walls.	For Standards.	For Pots.	For small Gardens.	REMARKS.
Brunswick	W	...	...	...
Ischia, Black	W	St.	...	S. G.	Forces well
Ischia, Brown	W	...	...	S. G.	
Marseilles . . . .	...	...	Pots	...	One of the best for pot culture
Malta . . . .	...	St.	Pots	...	
Turkey, Brown	W	St.	Pots	S. G.	Forces well

[We hope in a future number to be able to follow Mr. Powell's admirable plan, and present our readers with suitably compiled lists for the midland and northern districts, by equally eminent cultivators. ED.]

DRUMMOND CASTLE, PERTHSHIRE.

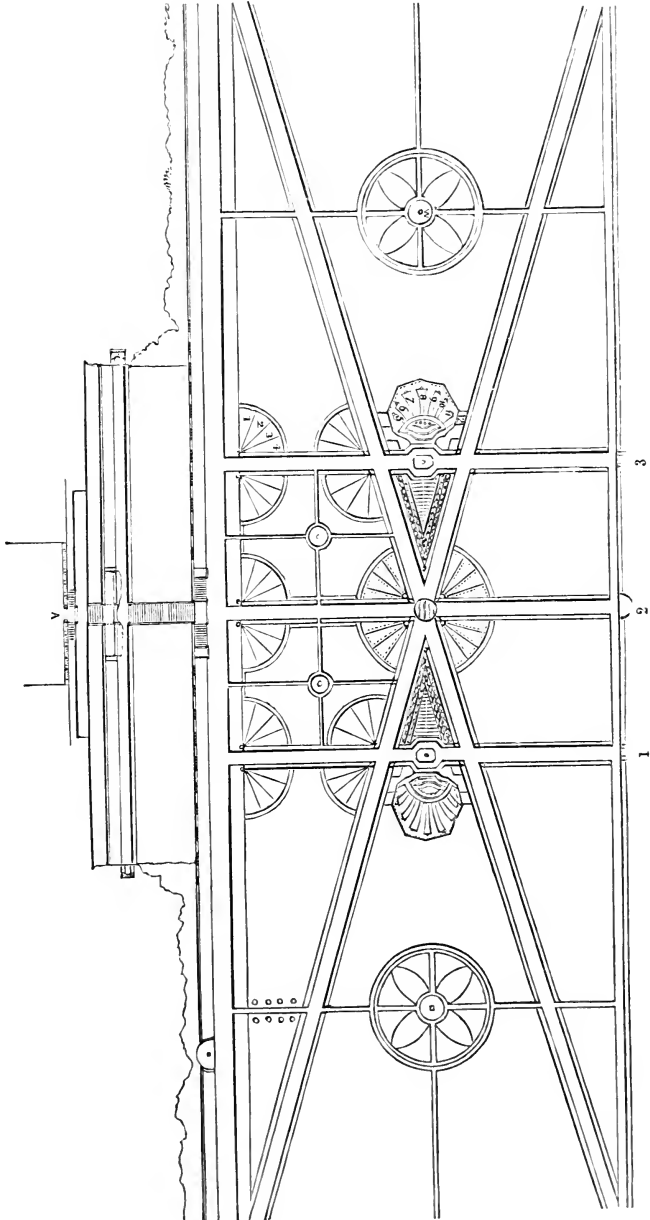
THE SEAT OF LADY WILLOUGHBY D'ERESBY.

THE flower-garden at Drummond Castle has been so justly admired by all who have seen it, that we consider a few notes on it, made during a recent visit to it, will not be unacceptable to our readers.

The approach to the Castle is from the Greenhaling and Crieff road, to which the Park extends, at a point some ten or eleven miles from the former, a station on the Scottish Central Railway, between Stirling and Perth. The Park is of large extent, and presents great variety of surface, carpeted with the richest verdure, and containing grand masses of old forest trees, interspersed with more modern plantations. The Castle crowns the crest of a ridge composed of the prevailing rock of the district—trap and whinstone—which, commencing in the Park to the east, terminates abruptly at this point; this gives the Castle a commanding position, and one difficult of access, as it is surrounded on three sides by a deep ravine—a point of much importance in the troubled times of Scottish history, in which its noble owners, who held sovereign sway over miles of the surrounding country, took so conspicuous a part, continuing to the last faithful to the house of Stuart, whose cause they at all times loyally espoused. In forming the approach road to the Castle it has been conducted along this ridge (which has a gradual ascent) nearly to the Castle, when the road winds to the right, under the Castle walls, to get an easy access to the court-yard, situate to the west of the main building. The view from this approach to the right (going towards the Castle) is particularly striking; an artificial loch, or lake as we in England should call it, covers more than 100 acres of the bottom of the valley, its further shore being beautifully fringed with wood, and rocky cliffs; further on, the town of Crieff meets the eye, and has a fine effect seen over the

lake; and behind it, the far stretching Grampians fill up the perspective. On passing through the Castle yard, and reaching the steps leading down to the flower-gardens, we were most agreeably surprised and delighted with the view which all at once met the eye. We have before stated that the Castle occupies the summit of a ridge, in the valley or rather ravine to the south of which are the flower-gardens, some 80 feet immediately below; the spectator therefore obtains from this point a complete bird's-eye view of the whole; its unique plan, decorations, and mode of planting being taken in at a glance; while the richly-wooded hill, which rises rapidly to the south, forms a suitable background to the gardens below. To reach this lower garden two or three terraces have to be crossed, each supported by a deep wall, mounted with balustrading, &c.; and before we descend to the principal garden, we must notice the way in which these walls and the accompanying borders are decorated. In the first place the walls, one of which is 14 feet high, are covered with creepers, including Maurandyas, Lophospermums, Rhodochiton, Tropæolums, Clematises, Roses, Cupheas, Myrtles, Magnolias, Fuchsias, Petunias, Verbenas, and some kinds of Geranium, as the Crimson Unique and white-flowered Ivy-leaved, Convolvulus, &c. We were surprised at seeing some of the above the entire height of the wall, which consequently was a mass of bloom. Many of the plants, we understood from Mr. M'Donald, were taken up the end of each season, placed in large pots, with the tops carefully tied in to a trellis, and are wintered in the greenhouses; treated in this way for two or three years the plants have attained the size we saw them, and bloom much more profusely than year-old plants. A border runs along the base of each wall, 10 feet wide (which, with the walk, 10 feet wide, and about 60 feet wide in shrubs, constitutes the width of each terrace). On this border the plants are arranged in masses, the colours being suitably contrasted; for instance, imagine a mass of the blue *Salvia patens*, 15 feet in length, next the *Calceolaria rugosa*, followed by the bright-coloured pyramidal Asters, silver-edged and Tom Thumb Geraniums, &c.; and some idea will be formed of the effect produced by this arrangement, running the length of a border 1000 feet in length; this is further heightened by groups of Hollyhocks and Dahlias, say every twenty yards, the kinds selected being chiefly scarlet, crimson, yellow, and white, three or four of each colour being planted together; the effect produced, when seen from either end of the walks, was very striking, the masses of colour blending into each other very satisfactorily, while the upright spikes of the Hollyhocks told exceedingly well in the distance.

On reaching the principal garden, which forms a long parallelogram of upwards of 15 acres in extent, the principal feature in the design is the "St. Andrew's Cross," formed by diagonal walks of turf, accompanied on each side by a border some five feet in width, along which are planted, in masses, some of the gayest and most striking plants which can be selected; large groups of Larkspurs, Rockets, Lathyrums (especially roseum, which is very striking), Salvias, all the most distinct and vivid-coloured Phloxes, Asters, Convolvulus, bedding plants, annuals—in short, everything in the above way with bright colours,



and of a certain height—for this is important. The long borders which run beside the upper walk are managed in the same way. The effect of this arrangement is greatly heightened by the great length of the walks. Mr. M'Donald, who has quite the eye of an artist, plants at certain defined distances masses of very decided colours, forming centres, from which, on each side, the colours are contrasted. Nothing can exceed the effect produced by this mode of dealing with so large a quantity of plants.

We annex a ground plan, which, though necessarily on a small scale, to suit our pages—too small to show the end walks—will enable our readers to form an idea of the design. From this it will be seen that the cross is intersected by three walks—1, 2, 3; these are gravel, 10 feet wide, with borders on each side, planted with standard and dwarf Roses. A large circular bed with radiating divisions, fills up the centre of the design; this is planted with a selection of hardy Heaths. The series of fan-shaped beds, with similar divisions, are filled with the showiest bedding plants and annuals, judiciously managed for effect; while the four large divisions between them are planted with American plants. The wheel-like figures contain fountains, which form centres to large circular beds, enclosing a cruciform pattern filled with Heaths, with the intervening space turf. The small angles in the centre have the arms of the Drummond family designed in dwarf Box; this looks very neat. Behind the borders we have described on each side the main walks, and forming a background to them, run lines of spiral headed trees; they consist of common and Irish Yews, Junipers, Red Cedars, Cypresses, common and variegated Hollies, Fern-leaved Beech, &c.; many of these are 20 feet in height, are perfectly symmetrical, and must have taken years, and vast care in training, to work them into their present form; they produce a very striking effect from either end of the walk, with the long line of showy flowering plants before them, and the rich verdure of the tints which compose the walks. The remaining space, which in the plan is shown blank, is planted up with nearly every kind of evergreen, interspersed with flowering shrubs; these are not huddled together, but have room to develop themselves, while at the same time they are kept within certain limits by timely pruning. Most tastefully arranged in the midst of these masses of shrubs are vases, pedestals, sculpture, and numbers of the spirally trained trees alluded to above, in addition to those already noticed. The effect of all this is best comprehended from the court-yard (A) 80 feet above, from whence, as we observed at starting, the view surpasses anything we had previously seen. Looking at the general design from this point, the masses and long lines of colour are amply relieved by evergreens; and the whole is so happily blended together, that nothing appears wanting. The rich evergreen masses would by themselves perhaps have appeared heavy; but intersected by walks, carrying margins of colour with them, and the central parts being relieved by architecture and trees, vases, &c., there is produced a happy combination of colour and repose, forming as a whole a picture which we venture to affirm has never been surpassed.

Before leaving Drummond Castle we were conducted by Mr.

M'Donald to the top of the keep, a portion of the old castle recently rebuilt, the prospect from which over the surrounding country is grand and extensive. To the west lies a portion of the Grampian hills, richly wooded, constituting the red deer park; while looking eastward is seen the well-cultivated district of Strathearn, abounding in corn fields, lately yellow with ripening grain, and interspersed with woodland scenery, stretching away towards Perth. In the foreground the valley and lake formerly described are the principal features. The whole panorama is backed by the Grampian hills, which, at the time we saw them, had their more salient points lit up by a brilliant sun, throwing them into every variety of light and shade, and forming altogether one of the grandest landscapes in this part of Scotland.

We cannot leave Drummond Castle without expressing our best thanks to Mr. M'Donald for his kindness. These magnificent gardens reflect the highest credit on his talents and perseverance.

A RETROSPECT OF THE DAHLIA SEASON OF 1854.

IN redemption of the conditional pledge given to the readers of the *Florist*, in the number for July last, I return to the subject of the Dahlia, which, although well-nigh threadbare, from constant wear, is by no means "used up." Can it ever be so, indeed, while progressive improvement in the growing and showing of the flower goes steadily forward, as at present?

The season just past, as every grower can testify, has been especially unfavourable to the Dahlia. Early planting was impossible, in consequence of the cold weather having been even more protracted than usual. I am not, however, disposed to consider this a great evil. Indeed, it must be admitted—taking into account the condition of the ground, and the remarkably fine weather which followed close upon the period of planting—that during the first weeks of culture the prospect of the Dahlia fancier was never more encouraging. The plants grew most vigorously; and well it was they did so, for never did they more need an exuberance of strength, to enable them to bear up against the adverse influences to which they soon became exposed. No part of the kingdom I have heard of was exempt from the ravages of the black aphid, than which nothing more effectually checks the growth and debilitates the constitution of the plant. This was succeeded (in certain districts) by a minute grub, deposited in the axils of the upper leaves, which found its appropriate aliment in the bloom bud, almost as soon as developed. From these two causes early flowers were unusually bad. My own—instead of being the finest of the season, as is usually the case—were meagre, ill-conditioned, and lustreless. But since

The darkest day—

Live till to-morrow—will have passed away;

So here, as in every instance, Time brought with him his healing influences, and the prospects of the Dahlia waxed brighter. But the summer was unusually dry, and then came the earwig in battalions,

and, worse than whole armies of earwigs, the dreaded thrips. The effect of the last-named pest was, as might naturally be expected, especially detrimental to the London growers; and to this cause I attribute it, that, until after the welcome showers which fell about the middle of September, they were not found to occupy their usual prominent places at exhibitions. At Salisbury, at the Surrey Gardens, and at Brighton, the chief prizes were taken into the country; while at Slough and Highbury the Metropolitans were again in their wonted position, and earned the highest honours;

They won them all well, and may they wear them long.

I think I have enumerated a tolerable list of casualties (to use a word now become too familiar), which have befallen the "burden of my song" this year. With all these drawbacks can it be said the Dahlia has been worse shown than usual? To "speak the whole truth," perhaps we must answer generally, Yes. But whoever saw the two noble collections from Norwich, which at Brighton completely distanced all competitors, will speak "nothing but the truth," in replying to the query with a special and emphatic No. On the whole I think we may safely infer that the past season has shown an advance in the cultivation of the Dahlia. I doubt if two such collections of 24 blooms as those I have alluded to, were ever before put together by amateurs. It is worthy of remark, in the review we are now taking, that as a general rule amateurs have exhibited better this year than nurserymen. This is an individual opinion (*valeat quantum*), and can be expected to be received with only partial assent. With respect to the disposition of colours, I must in candour confess that little, if any, improvement is visible. Let me once again request the earnest attention of exhibitors to this important subject.

It is a fact well known to florists that each variety of any given flower has its own peculiar season; and that while all are more or less beautiful, there are certain circumstances—not always understood—under which individual kinds shine forth with more than usual splendour, or sink into comparative insignificance. The Dahlia is no exception. It may therefore not be altogether a waste of time if we take a rapid glance at the varieties which have been most seen at the exhibitions of the present year, not forgetting a passing thought of those, "though absent, not forgot," which have perhaps been missed from their accustomed places. To accomplish this the more readily, I propose—in the first place—to allude to the sorts in the hands of the public up to the present year. These it will be convenient to separate into two classes: 1st, the varieties in cultivation prior to 1853; and 2ndly, those sent out in the spring of that year. Of the Dahlias of 1854 I shall say a word or two on a future occasion. 1st, "Like angels' visits, few and far between," are the glimpses we have caught of Alice; but when she does condescend to appear her beauty is unsurpassed. Annie Salter has somewhat emerged from the cloud which obscured her last year, though she can scarcely be said to have realised the expectations raised on her first "coming out." Barmaid has forsaken the bar (of public opinion). True to her vocation, she is, possibly, searching among cob-

webs for the old Beeswing, now less frequently on the table than in bygone days. Duke of Wellington, like the hero whose name it bears, sustains campaign after campaign, and still comes forth victorious. Essex Triumph is still "to the fore," and when compelled to give place to more youthful competitors will retire full of years and honours. Fearless! thou still retainest thy bold, undaunted aspect; yet mayest thou well beware! Remember Samson and Dalilah, and tremble despite thy strength! George Glenny is generally considered to be too coarse for the present refined taste; but we must not permit this defect to render us blind to other and better qualities. George Villiers has scarcely proved himself to be so great a personage as he was formerly deemed to be. What has happened to General Faucher? He has been abroad but little of late, and when he has appeared, his best friends, barely able to recognise him, have wished, for his own sake, he had remained at home. The absence of the Hon. Mr. Herbert may be excused, the Emperor of all the Russias (like a tyrant as he is) having confined him closely to his office. Notwithstanding that his presence is always acceptable to every stanch florist, John Edward has been seen but occasionally, and then for the most part in the background. The beauty of Louisa Glenny is of the order termed by our good friends the French, *petite*; nevertheless, we should have rejoiced to have seen her delicate features more frequently. That bewitching little brunette Miss Spears continues as captivating as ever. Model, with one solitary exception, has proved a misnomer. Morning Star, with all its brightness, appears to be verging towards an eclipse. Mr. Seldon has been as ubiquitous as ever, but we regret to say he has appeared a little out of sorts. We trust his ailment is merely temporary. In all his peregrinations he was accompanied, as usual, by his better half, who, we are happy to say, is as attractive as ever. No lady of our acquaintance is more universally and more justly admired than Mrs. Seldon. Privateer was seen once or twice, going to windward under easy sail—"letters of marque" being out of vogue at this juncture. The temporary abdication of the Queen of Lilacs was regretted by most of her subjects; her re-appearance, in full regal splendour, in the suburbs, on a late occasion—where she underwent the ceremony of re-coronation—was highly gratifying. Queen of Whites is scarcely so popular as formerly; nay, it is even whispered that her reign may prove ephemeral. The good knight Red Gauntlet is as stanch and stalwart as ever; there is stuff of the right sort in him yet, though detractors are apt to remark, there is scarcely enough of it. The comparative retirement into private life of Richard Cobden has attracted much observation. Can it be that the high price of corn, in spite of repeal, has any connection with this matter? The Rose of England is blooming still. Long may it be ere her flowers shall fade and her leaves wither! Shylock still "frets his hour upon the stage." Allusion to Sir Charles Napier, during his absence in the Baltic, would not be in good taste. He will doubtless be able to give a good account of himself on his return. Of the worthy baronets Sir Frederick Bathurst and Sir Robert Peel, suffice it to say they still maintain a high position in that society of which they are distinguished ornaments.

Whittington continues to prove worthy of his fairly-earned honours. Thames Bank Hero, having "achieved greatness" for himself, may now repose upon his laurels, with the firm conviction that sterling worth will ever prove Triumphant. White Standard has been kept closely furled. Ay, truly: no "flag of truce" for Britons! The meteor flag of England waves proudly over land and sea. Long may it float triumphant, the emblem of safety to her children, of confusion to her enemies, and the enemies of her first-born—Liberty!

But whither away? My favourite hobby has bolted with me, as usual. He will carry me steadily enough so long as we keep the beaten road; but no sooner do we emerge upon the soft turf, with the ostensible purpose of enjoying a quiet canter, than the ungrateful brute takes the bit between his teeth, and fairly (should I not say foully?) runs away with me. The chances are then about equal, whether I find myself in the position of victor or vanquished. Not seldom he deposits me in the mire, to extricate myself as best I can. At other times, as now, I am fortunate enough to restrain his vagaries. So, gently, old fellow! No more of this, if you please. And now, having regained the causeway, we will endeavour to jog on soberly and staidly, to the termination of our journey. *Allons!*

Secondly. We come next to the consideration of those Dahlias which were sent out in the spring of 1853. As we have had only two trials of these, any opinion that may be given respecting them must be received with a certain amount of reserve. Some of them will doubtless prove as valuable as the best of our older acquaintances; many will be extremely useful, and a few may be discarded forthwith.

Amazon is happily named. A noble, bold flower, very far in advance of any of its class. It has been extensively shown, and a prominent feature in almost every stand exhibited throughout the season. Beauty of the Grove, discarded by many after a single year's probation, has been very good. The air of Bermondsey seems particularly favourable to this variety. Bishop of Hereford is a good useful flower, of average pretensions. It is not, however, as many supposed, one of the best of its year: the frequency of its appearance is a pledge of its constancy. Bob has scarcely realised our expectations. The brilliancy of its colour, and the dearth of good bright scarlets, will secure it a place in collections for some time to come. British Queen may be spared without inconvenience. Exquisite is not a constant flower, but so extremely beautiful at times that most growers will be disposed to find a place for it, on the chance of a good bloom. Grand Duke is one of the useful class. Lilac King has been occasionally first-rate. At its very best it may be superior to Fearless, but cannot be compared with that fine old variety in respect of constancy. Ma Beauté has made no display, and may therefore be presumed to be a failure. Miss Caroline is very desirable. It is a flower of remarkable depth, and if not quite so constant as might be wished, it is far more so than Marchioness of Cornwallis, whose vacant place it so worthily occupies. M. Dugère has not been much shown; this is a pretty rather than a fine flower. Those who have it not may contrive to get on sufficiently well without it. Plantagenet has not been much exhibited. It is a

very fine flower, but rarely to be had in first-rate condition. It is a good deal after the fashion of—and at times far superior to—Mr. Seldon; but while we can always depend upon a bloom of the old variety, but slight reliance can be placed upon the new. Queen Victoria has been exhibited on one occasion only, when it created quite a sensation. Shall we be going too far if we venture to predict that, as a show flower, we have “looked our last” on this variety. Robert Bruce has been shown on most occasions, still it is anything but a good flower. It may retain its place for the present, being one of that class which—never first-rate—is always to be found in tolerable condition. Sir John Franklin is a very variable kind, depending much on soil and cultivation. Under good management it comes out magnificently; but as produced by the majority of growers it presents but a meagre appearance. To do this flower justice, several plants should be grown, and but very few buds left on each; moreover the operation of disbudding should be commenced as soon as the buds are developed; if a number of them be allowed to attain a considerable size, their free removal at that period will do little towards the production of large blooms. Transcendant has not been good enough to appear in public. Its centre is irretrievably bad, and it may be consigned to the border or manure heap without the slightest compunction.

A few words respecting the fancy Dahlias. The varieties sent out in 1853 were not numerous. Attraction has been now and then exhibited; a second-class flower as regards form, but very brilliant and striking. Claudia is too coarse for the show-board, from which it must soon be banished. Duchess of Kent, whether self or parti-coloured, is one of the best Dahlias in cultivation, and well maintains its position. Jonas is become an established favourite. Reine des Fleurs is another very beautiful variety, and likely to be much in request; want of constancy is its prominent failing. Unanimity, if not much in advance of its class, is likely to come in well occasionally. Wonderful is a well-shaped flower, of remarkable depth; perfect blooms, however, are not to be had on all occasions; it is one of the most fitful of this very uncertain tribe.

Of the older fancies there is little to be said. Year after year the least perfect of them recede—by twos and threes—from our view, and are replaced by newer sorts; but novelty soon passes away; they must then be tried by other tests, and stand or fall by their intrinsic merits. There is a steady advance in this class, and every year adds to our stock of really good varieties. Our continental friends have contributed not a little to this improvement. No surer evidence of progression can be given than the fact that fancy Dahlias are more ephemeral than selfs. Empereur de Maroc is the oldest member of this family now cultivated by exhibitors. We still retain some excellent varieties in the other section, of far remoter date.

A. S. H.

[We are much obliged to our valued correspondent for this article, although, on a future occasion, we shall have the pleasure of appearing as counsel for the defendants in this action, feeling, as we do, that some of the varieties deserve a little higher praise than “A. S. H.” has awarded them. ED.]

THE SALWAY PEACH.

THIS new late Peach was raised from a stone of the St. Giovanni Peach, brought from Florence by Colonel Salway, in 1844, and was sown the same season at his seat, Egham Park, Surrey. It produced fruit for the first time in April, 1852. Last season (1853) the tree, though small, ripened 30 fruits, all of good size, and considering the very inferior season, they were of good quality and extremely well coloured.

The fruit is round, indented at the apex, and has a deep channel running to the stalk, the line continuing on the other side, but faintly marked. Skin deep orange, tinged and mottled with red on the sunny side; flesh orange, tinged with red at the stone, soft, melting and juicy. It has a sweet pleasant flavour, and is highly perfumed, parting clean from the stone, which is oval, deeply channelled, and acute at one end. In season the end of October and beginning of November.

It has again borne this season, and the fruit, if possible, are of better quality than last year. It is a perfectly hardy variety, and I fully believe it will prove a valuable acquisition.

Royal Gardens, Frogmore.

J. POWELL.

DESCRIPTIVE LIST OF HARDY CONIFERS.—No. XII.

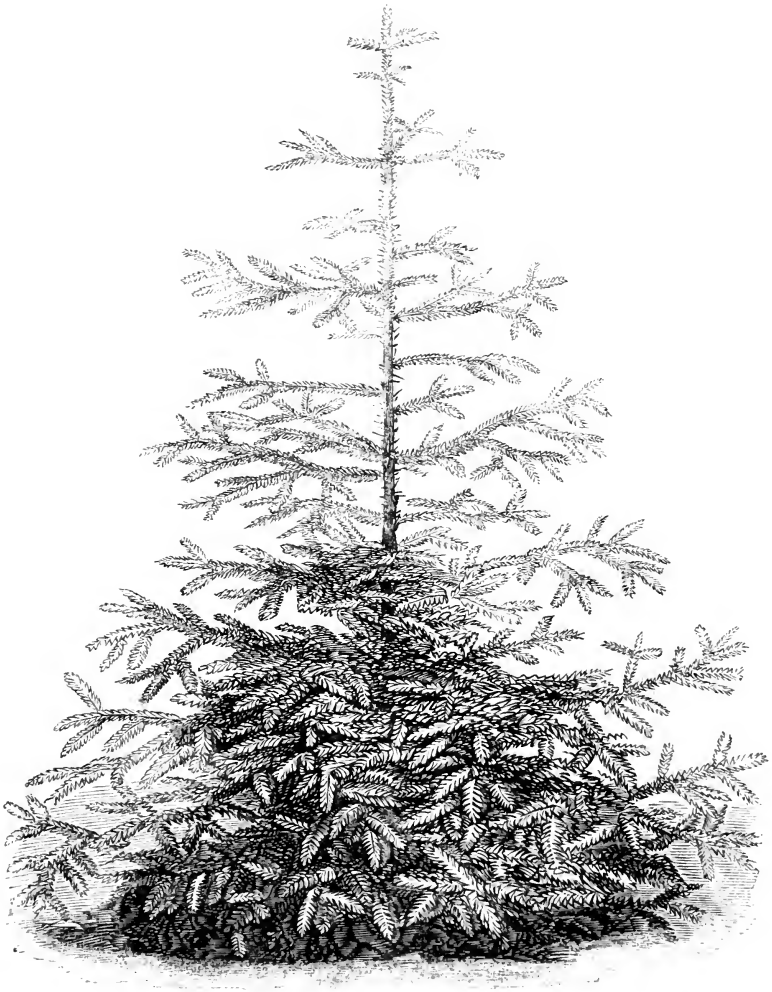
XXII. ABIES NORDMANNIANA—NORDMANN'S SILVER FIR.

A NOBLE tree of recent introduction, said to be indigenous to the mountain ranges in the north of Asia, on the eastern shores of the Black Sea, and in the Crimea. The mountainous district of this now celebrated peninsula follows the coast-line from Bala-klava to Cape Theodosia, a distance of about 90 miles, and extending inland nearly to the great road which runs from Theodosia, or Kaffar, by way of Kara-su-buzar, Simferopol, and Bak-tchi-sarai, its greatest width being near the latter town. This part of the Crimea is described as one of the most delightful countries in the world. The range of mountains in places attains a considerable elevation, and is intersected in all directions by valleys of great fertility. The mountains, which afford a good pasturage to their very summits, have their slopes clothed with forests of Oak (among which are one or two beautiful species), Walnuts, Chesnuts, Elms, *Pinus maritima*, Junipers, &c., including *Abies Nordmanniana*, which is here found plentifully, and forms a very conspicuous feature in the scenery. The whole district rests on a soft calcareous rock, whose abrupt cliffs are visible everywhere. The soil is a rich loam, and besides the various indigenous trees and shrubs produces all kinds of European fruits and vegetables in the greatest luxuriance.

Nordmann's Fir forms an upright tapering tree, clothed with numerous branches, produced in regular whorls, leaves linear, nearly entire, of a pleasing green on the upper side, and silvery below. The general appearance of the tree somewhat resembles *A. grandis*, but the leaves are not so thickly set on the branches as in that species, and are of a lighter green. The tree is perfectly hardy, and we can recommend it

with the greatest confidence, as it does not commence growth till very late in the spring, and hence escapes those late spring frosts which injure so many fine things which are unfortunate in vegetating early.

We are ignorant to whom belongs the credit of introducing this fine



ABIES NORDMANNIANA.

Conifer to English gardens, but presume it reached us through St. Petersburg. We know, however, that his excellency Prince Woronzoff some years back sent seeds of this Fir to several of his friends in England

from which plants have been raised, as well as of a species from the same quarter, named *Pinus padufica*, young plants of which we possess.

We are indebted to the kindness of Sir John Cathcart for permission to figure our present engraving from a specimen now growing in the well-managed grounds at Cooper's Hill. The tree is in the most vigorous health, and is growing fast into a fine specimen. We understand it was purchased of Mr. Pontey, nurseryman, Plymouth, who grows a choice collection of rare Conifers. To those who intend planting Nordmann's Fir—and it merits a very extensive introduction to park and garden scenery—we should recommend a loamy soil of rather heavier character for it than would suit the generality of Conifers. Experience shows us that the Silver Fir section thrives best on soils of rather a heavy nature, and the native habitat of *Nordmanniana* goes to prove that it does not differ from our common Silver Fir in this respect.

NATIONAL CARNATION AND PICOTEE SOCIETY.

FEELING that your remarks, at page 267, on the late exhibition of this Society, convey an expression of censure very undeserved on the part of the management, simply in justice to those concerned, I ask your permission to offer a brief explanation, and a short comment on the latter portion of your criticism.

In the first place, with respect to the alteration of the day of show, I had hoped, after the falsification of all the prognostications with which I was harassed up to the morning of the show, that any further stress upon that subject would have been spared; but as it is introduced, allow me to say, without troubling your readers with a long detail of local circumstances, however important or influential in themselves, that an alteration being almost imperative, the postponement of five days was adopted, on the representation of eleven-twelfths of those interested, that their flowers could not be ready by August 3d, these representations being further supported by the statement of the cultivators, that no Hollyhocks could be produced at that time. Considering these facts, I very much regret, and am somewhat surprised, you should have adopted a tone of complaint, the more especially as, when it is observed the two southern collections, though opposed by upwards of twenty competitors, carried off one-half of the prizes in the open class, the inference is inevitable that the southern flowers in their decay are more than a match for the prime and maturity of the midlands and the north. Such an inference is not consistent with the facts, nor can I with all my predilection in favour of the south, and with an unlimited admiration for the skill with which the collections in question are managed, subscribe to it. Very far as the southern collections undoubtedly were from their best, the chief collections, both of the midlands and of the north, were still farther from their prime.

With respect to the exhibition of stands of Carnations and Picotees in combination for the principal prizes, any mode which may tend to limit competition is undoubtedly injurious, but that such was not the

effect upon the late occasion, I must state the schedule of prizes was only issued after a prolonged canvas, embracing every cultivator known to me—certainly every cultivator of eminence—and after the only gentleman whose competition for a first prize might have been defeated by such an arrangement, had positively declined to exhibit.

What "other objections" may exist I am unacquainted with, excepting only those which apply to all combinations, whether the combination of twelve Carnations and twelve Picotees, or the combination of twelve or any other number of Carnations or other flowers. And my surprise would be greatly increased if I found you objecting to the advantages of combination, the evils which are its inseparable concomitants. But as my remarks are intended merely to remove the assumption of carelessness or incapacity on the part of the management, it is unnecessary to pursue this. I sincerely hope the managers for the coming year may more truly deserve, and succeed in securing, your approval.

The latter portion of your criticism—your objection to the showing of duplicates "in so small a number as twelve blooms," remains, however, to be noticed; and on this point I must declare unreservedly my total issue with your conclusions. With the sincerest esteem for your ability and your experience, I am totally at a loss to discover the least force or significance in the objections urged. Is it possible there can be a greater difficulty in noting *nine* dissimilar flowers than in noting twelve? Can it be more difficult to note nine flowers in twelve than it is to note twenty-four in thirty-six? Yet this latter arrangement you suggest for the Hollyhock, and the question is therefore one of detail not of principle. I may here state in a parenthesis, that your criticism, after your approval, or at any rate absence of disapproval, of the draft of the schedule before publication, seems incomprehensible here. How, too, whilst advocating variety, the "better variety" you should assume the exhibition of "twelve varieties," would not only not gain a point, but probably lose, is inexplicable. Used against variety it might be understood, but coming from its advocate, and as enforcing its claim to attention, it is past my comprehension. It is simply absurd to say, "It must be taken for granted all are equal on this point." It would be as reasonable to assume each stand of flowers equal on every other point. I do not urge this merely for a victory. I believe a point of vital importance to the success of the National Carnation and Picotee exhibitions, and consequently to the position of the flower, is to be determined, and I cannot stay my voice.

Let us go back a few years. I well remember, when the National Carnation and Picotee Society was formed, on the afternoon of the first of the trial exhibitions in 1850, the excellence of that exhibition, the closeness of the competition, and the absence of anything like marked inferiority in the collection, was the subject of general remark; and the cause for this excellence was declared to belong to the fact, that the collections being of *six* blooms only, the number was within the compass of every cultivator. So much so, that it was proposed the collections from the amateurs should not in the (then) new Society exceed six blooms, whilst the nurserymen should show nine. Eventually it was

left for the executive to determine the number, on the distinct understanding that for amateurs it should not exceed nine. I need not remind you that the gentlemen who attended that meeting comprised the possessors of the largest and best collections in private hands in the kingdom. On the issue of the schedule in 1851 it was found that nine was the number adopted; so it continued in 1852. At the exhibition in that year the unsightliness of the tube stands (of nines) was the subject of general animadversion, and the cultivators then present unanimously determined that in future the flowers should be exhibited in boxes. But a box of nine blooms is very heavy and unsightly, offending the eye only in a lesser degree than the bristling tubes. Therefore, to admit of the use of twelve blooms, I proposed the adoption of a duplicate or duplicates, so wording the schedule that variety in its largest extent was nevertheless invited, where attainable. This arrangement the York committee accepted, and the result was a demonstration of its propriety, unless the almost general adoption of the permission accorded is no indication of the difficulty which otherwise would have existed. At Derby the result still more strikingly exemplified the necessity for the rule; for is it to be assumed the amateur cultivators who contended upon that occasion are insensible to variety? "Variety" which from their schooldays upwards they have learnt "is charming!" Variety, which of all men the florist most incessantly seeks!

Another test may yet be applied. When, in 1849, I stood by your side as you "got up" your two stands of twenty-four blooms each for the Royal South London exhibition, at the Surrey Gardens, I well remember your remark, in reply to some encomiums of mine, "I never showed but one twenty-four blooms that pleased me." Now there are not twelve amateurs in the kingdom regularly cultivating a stock exceeding one-fourth of that cultivated at the Royal Nursery, or with one-half of its variety. And the immense majority of cultivators, those upon whom the fortune of the National must mainly depend, are limited to one-half of this. If, therefore, you cannot show twenty-four blooms, is it reasonable to require from a stock, the tenth part of yours only, twelve blooms? In my own experience I have shown but one collection of twelve dissimilar blooms unaccompanied with "marked inferiority." And eminent as is your experience, admitted and respected your ability, I have a right to put forward my experience *for the amateur* before yours. You can only imagine, I can appeal to facts. Therefore, as I do sincerely desire the National Carnation and Picotee Society may flourish, as I hope every succeeding exhibition may equal or surpass its predecessors, I urgently exhort the coming executive not to be misled by your over-hasty advice. They must remember the true way to promote competition is, not in rising to the measure of the strong, but in stooping to the ability of the weak.

Derby.

E. S. DODWELL.

[We are always pleased to receive a communication from our friend Mr. Dodwell, although in the present instance we are at a loss to discover the pith of his communication, or exactly admire the tone of it. We merely stated that by removing the date of the show from the

3rd to the 8th of August, it acted injuriously towards the southern growers, and we are in a position to prove it; for, in order to save our blooms, we were obliged to cut them four days before they left here, and were the last we could cut. The southern collections had passed their best before the 8th. We have only to remark that we see no reason to recall our observations, but leave the subject in the hands of our readers, many of whom were present on the occasion.—ED.]

THE STOKE NEWINGTON CHRYSANTHEMUM SOCIETY.

THOSE who for the first time witnessed an exhibition of this Society, must have been much struck with the brilliant display, created by the Chrysanthemum alone; and judging from the general feeling expressed by the visitors to the exhibition of the Society, at the Manor Rooms, West Hackney, on the 21st November, the show was in every respect a most satisfactory one.

The six plants exhibited by Mr. Gifkins, gardener to P. Johnson, Esq., and which took the 1st prize, a silver cup, were admirably grown specimens and abundantly flowered, the blooms being of good quality. The varieties were, Mount Etna, Queen of England, Annie Salter (which was the specimen plant of the entire exhibition). Christine, Defiance, a huge specimen, but blooms wanting expansion, and Madame Camerson, a very fine plant, not less than five feet in diameter, and of the most symmetrical form. Mr. W. Holmes, of Hackney, was 2nd, with Defiance, Pilot, Chevalier Dumage, rich golden yellow, but with faulty centres; Mount Etna, a splendid plant, profusely flowered and blooms large; Christine, full six feet in diameter, blooms fine and in great profusion; Annie Salter, profusely flowered, but lacking the finish observable in the specimen plant of the first collection. These were by no means a match for the first collection in healthy foliage. A third collection was staged by Mr. James.

For six Pomponé Chrysanthemums, Mr. Scruby was 1st, with Madame Rousselon, delicate rosy peach colour; Cedo Nulli, Drine Drine, Modele, Autumnum, and Dame Blanche, yellow with white. These were all well-grown specimens. The 2nd prize was awarded to Mr. Goodenough, for Cedo Nulli, Solfaterre, Ninon, Modele, Autumnum, and Surprise; 3rd, to Mr. W. Holmes; 4th, to Mr. Gifkins; 5th, to Mr. Oubridge; 6th, to Mr. Elliott; 7th, to Mr. Argent. Three other collections were also staged in this class.

Cut flowers formed an important feature, nine collections of twenty-four blooms having been staged for competition. The first prize, a silver cup, was awarded to Mr. G. Taylor, of Hackney, for a stand of splendid blooms, consisting of Queen of England, as usual pre-eminently fine, Camestroni, Themis, Nonpareil, Beauty, Madame Audry, Defiance, Argina, Duke, Rolla, rosy purple and good, Two-coloured Incurved, Rosa mystica, Plutus, beautiful, Racine, Formosum, Cyclops, Dupont de l'Eure, symmetry itself, and Trilby, a new blush

variety ; 2nd, Mr. A. Wortley, the secretary of the society. In this stand we noticed a beautiful bloom of Golden Cluster, and Versailles Defiance, a beautiful incurved rosy purple, the only Chrysanthemum that ever received an award at the National Floricultural Society ; and Pio Nono, a good character flower, but not so good as we have seen it ; 3rd, Mr. G. Hutton, who had in his stand fine blooms of Racine, deep yellow, with small purple tip on the under side of the petal, and Nonpareil, a good deep lilac flower ; 4th, Mr. R. James, the treasurer, and we noticed among his a fine bloom of Themis, a noble back row flower ; Arc en Ceil, also good ; Christopher Columb, deep chesnut, with gold tip, distinct and good ; Miss Kate, pale lilac, a small flower, but smooth, and we think more may be made of it ; 5th, Mr. Scruby, among his being good blooms of Plutus, and Annie Salter, very fine ; also Racine, a flower always difficult to obtain good ; 6th, Mr. E. Sanderson, and in his collection we noticed Goliah, a flower that we think should now be dispensed with, and good blooms of Leon Lequay, shaded lilac, a stout incurved flower, with a light centre, and Aristides, dull orange, margined with red.

In twelve blooms the first prize, a silver cup, was awarded to Mr. G. Hutton, of Shacklewell, for Campestroni, Defiance, very good, Themis, Aregina, deep rosy purple, stout and bold ; Queen of England, Strafford, delicate peach, and globular, well supported by Formosum, Nonpareil, Dupont de l'Eure, Gem, Rosa mystica, and the never-failing Plutus ; 2nd, Mr. E. Sanderson, having among his a fine bloom of Themis, also Beauty, for which this grower is somewhat famous, and Leon Lequay, again very fine, and quite establishing itself as a very fine variety ; 3rd, Mr. R. James ; 4th, Mr. Oubridge, including a splendid bloom of Queen of England ; 5th, Mr. G. Taylor ; 6th, Mr. Scruby ; 7th, Mr. Merry ; 8th, Mr. Elliott, Stamford Hill, in whose stand we noticed Annexo, salmon buff, distinct in colour ; 9th, Mr. A. Wortley ; 10th, Mr. C. Sanderson. Four other collections were also exhibited in this class.

In six blooms, Mr. E. Sanderson was first, with Leon Lequay, Themis, Queen of England, Rosa mystica, Gem, and Plutus, a noble pyramid ; 2nd, Mr. D. Monk, of Upper Clapton ; 3rd, Mr. Elliott ; 4th, Mr. G. Taylor ; 5th, Mr. G. Hutton ; 6th, Mr. Kerby ; 7th, Mr. Oubridge ; 8th, Mr. R. James ; 9th, Mr. Scruby ; and 10th, to Mr. W. Monk, of Upper Clapton. Four other collections were staged in this class.

Seven collections of six Anemone-flowered Chrysanthemums were exhibited. Mr. George Taylor was 1st, with Fleur de Marie, Marguerite d'Anjou, Madame Godereau, Marguerite de York (a lemon-coloured Gluck), and Nancy de Sermet. Mr. R. James was second, with good blooms of Gluck, Fleur de Marie, Marguerite de York, Madonna, Sulphureum, Pallidum, and Madame Godereau. Mr. Scruby was third, having in his stand a fine bloom of Marguerite d'Anjou, and a well proportioned Gluck. Mr. Oubridge was fourth. Three other collections were also exhibited in this class.

In the maiden class, for six blooms, for those having never previously taken a prize, four collections were staged. The first prize was

awarded to Mr. James Stapleton, of Stamford Hill, for Themis, Queen of England, Beauty, Rosa Mystica, Nonpareil, and Dupont de l'Eure. Mr. Monk was second, and Mr. Jas. Carter third.

What spare room there was—and the plants and flowers were somewhat crowded—was fully occupied with delighted visitors, and we congratulate the management of the Society on the successful issue of its labours.

CALENDAR FOR THE MONTH.

Auriculas. Very little water and plenty of air will be the principal points to attend to this month, beyond keeping the plants clean both of dead foliage and green fly. If the soil becomes green on the surface it should be loosened, but not so deep as to disturb the roots. Should we get severe frosts a slight covering will be necessary at night.

Carnations and Picotees. Keep the pits or frames containing these plants as open as possible. If they have only lights over them without protection at the sides till Christmas so much the better. The plants will require water but very seldom, there being sufficient moisture in the atmosphere at this season. Too much moisture and not sufficient air is sure to be injurious; the spot will be the result of such treatment. The plants will now require looking over, cutting away all decayed foliage.

Cinerarias. Give those plants intended for early flowering, or for the May exhibitions, their final repotting; these should have plenty of room; the side shoots should be tied or pegged out as soon as long enough. Never use more heat than sufficient to keep frost out of the pit or house.

Cucumbers. Attend to our last directions. Sow seed for the early spring crop towards the end of the month; at this season they do best sown in single pots, to avoid the risk of transplanting.

Conservatory. This should be kept as gay as possible with Chrysanthemums, Epiphyllums, Salvias, *Linum trigynum*, &c. Towards the end of the month, the early started Roman Narcissus, Hyacinths, and Tulips, will be in readiness to help. Avoid keeping much fire at this season; a moderately dry heat, just excluding frost, will be sufficient. Water, &c., in the morning, for the house to become dry by the middle of the day.

Dahlias. Examine the roots of choice kinds occasionally, to see they are not rotting at the stem; if so it will be best to cut away the part affected, and to dry the root, if at all damp. Much depends, however, on the convenience at command for wintering them; under the stage of a greenhouse is most general, but here it is often too damp. Neither should they be placed in a situation that is too airy, as many kinds will dry up. They must be placed beyond the reach of frost. Seed will keep best in the chaff after it is thoroughly dried.

Flower Garden and Shrubbery. All that can be done here will be to protect anything left in the ground from frost, and to preserve neatness and order. Planting deciduous trees and shrubs may be done in mild weather.

Forcing House. As the buds swell in the early Vinery gradually increase the heat to 55° at night, and as they break to 60° : the day temperature should range from 5° to 10° over the night. Keep a damp heat the early stages, but as the Vines expand into leaf reduce this. A gentle current of air should be given most days more or less, according to the fineness of the weather.

Heaths and Epacrises. Air plentifully when admissible, giving it by degrees, and avoiding draught. The atmosphere should be now dry, that is, as dry as you can keep it without fire, which should not be allowed, except when the thermometer in the house is likely to fall below 32° . Water with caution. Frequently turn round the best specimens, and attack all appearance of mildew with sulphur.

Kitchen Garden. Clean and trench up vacant ground, digging it two feet deep, and leaving the surface either in ridges or very rough. Dung should be applied to the surface previously, and regularly mixed with the earth in digging. Attend to what crops are in the ground, and sow the first early crop of Peas on a warm border at once, if you wish to have them early, as well as a few Mazagan or Dwarf Fan Beans. A few Radishes or Horn Carrot may likewise be sown in a very sheltered place, covering the beds with litter till the seeds come up. Look after mice, which are troublesome to these crops. Look over the root stores.

Pansies. Those in pots must have plenty of light and air; the lights should be taken quite off at every favourable opportunity. The cuttings striking should not have much water, or they are liable to damp off.

Pelargoniums. Carry out instructions given in last number, and tie out the branches, using small neat Willow sticks. In this operation care should be taken to form a neat round bush. Commence by tying out the side shoots, and distribute the other shoots at equal distances. Water now but sparingly, taking care not to wet the foliage.

Pines. Keep the main stock now dry at the root; we suppose these are at rest, or nearly so. A moderate temperature, say 58° by night with an increase of 10° or 15° in bright days, is only necessary. Pines in dung frames must have the necessary heat maintained by fresh applications of heated litter. The early fruiting plants should now be started; gradually increase the top and bottom heat, and in a fortnight's time give a little water; this start will, in all probability, bring them up by Christmas, or soon after.

Roses. Those who have not yet taken our advice for last month should not fail to do so during the present open weather, and plant immediately.

Stove. This department should now present a gay appearance with *Justicias*, *Epiphyllums*, *Begonias*, *Eranthemums*, *Bignonia venusta*, *Gesneras*, *Euphorbia splendens*, and various other winter flowering stove plants. To maintain these in perfection keep the air of the house moderately dry, with a temperature of 60° by night. Some kinds now at rest, wanted to bloom, may be started, ready for potting on next month.

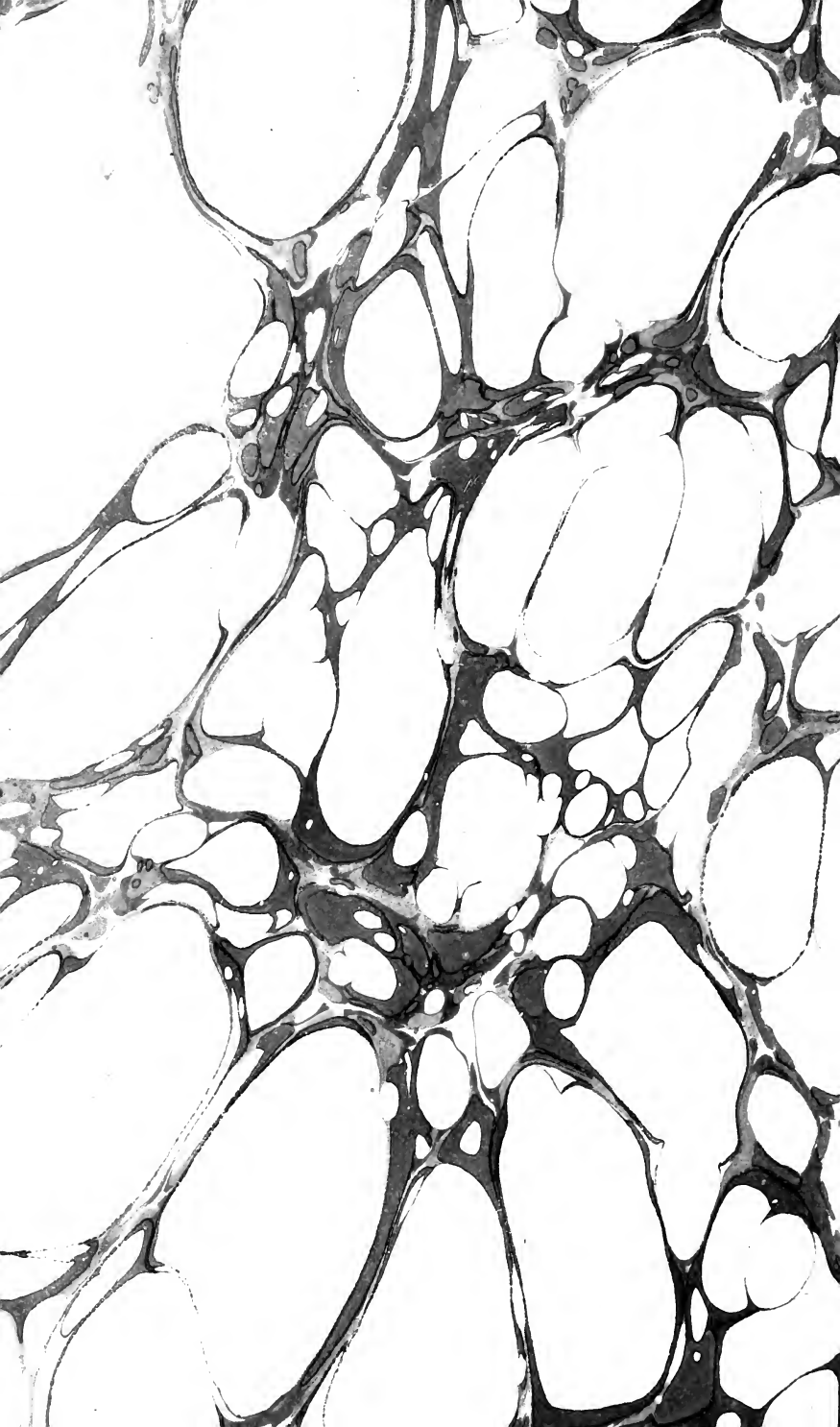
Tulips. These being now safely under the soil, there will be but little labour for two or three months to come. The beds may be exposed to any weather, with the exception of very heavy rains.

GENERAL INDEX.

- Abies Douglasi*, 48
 „ *bracteata*, 50
 „ *canadensis*, 72
 „ *Brunoniana*, 74
 „ *Menziesi*, 74
 „ *nobilis*, 105
 „ *grandis*, 107
 „ *amabilis*, 109
 „ *Deodara*, 138
 „ *Webbiana*, 141
 „ *Pinsapo*, 340
 „ *Nordmanniana*, 370
 Almanacs, garden, 75
Araucaria imbricata, 9, 22, 37
 Azaleas, conical, 101
 Balsam, Mrs. Jerdon's, 1
 Bedding plants, borders for, 137
 Birds, to keep seeds from, 75
 Bowood, parterre at, 155
 Brighton Hort. Soc., 248, 307
 Bulbs, Cape, 34
 Caledonian Horticultural Society, 335
 Calendar for January, 29
 „ February, 60
 „ March, 91
 „ April, 125
 „ May, 158
 „ June, 190
 „ July, 222
 „ August, 254
 „ September, 285
 „ October, 318
 „ November, 349
 „ December, 377
 Carnation, period of flowering, 65
 Carnation and Picotee Society, National,
 267, 372
 Celery, Incomparable, 36
 Cheltenham exhibition, 51, 214
 Chrysanthemums, list of, 86
 „ culture of Pomponc, 3
 Cinerarias, culture of, 129
 „ list of, 131
Clematis lanuginosa, 225
 Conifers, descriptive list of, 22, 48, 72,
 105, 138, 168, 200, 232, 264, 296, 340,
 370
 Conifers, effects of winter on, 79
 Cooper's Hill, gardens at, 118
Cryptomeria japonica, 200
 Crystal Palace, 153, 179
 Cucumbers, winter, 221
Cunninghamia sinensis, 168
 Cyclamens, 161, 314
 Dahlias, Fanny Keynes, 33
 „ Rachel Rawlings, 33
 „ Beauty of Slough, 97
 „ list of, 14
 „ size for show, 204
 „ distribution of colours in stands,
 166, 210
 Dahlia season of 1854, retrospect of, 365
Dipladenia magnifica, 321
 Drummond Castle, gardens at, 361
 Ealing Park sale, 114, 189
 Elvaston Castle, gardens at, 134
 Entomology, study of, 124
Epimedium, genus, 173
 Exhibitions, provincial, 316
 Ferns, greenhouse, 16
 „ book on, noticed, 252
 Fig, culture of, 334
 Floriculture, theory of, 45
 Florist flowers, showing in pots, 134
 Flower-garden, designs for, 184, 206, 314,
 330
 „ winter planting, 346
 Frame gardening, 6, 34, 172
Franciscea, genus, 115
 Frogmore, gardens at, 68
 Fruits, descriptive lists of, 27, 58, 151,
 237, 275
 Fruits, list of, for south and western
 counties, 357
 Fuchsias, new, 238
 Gardening, cleanliness in, 52
 „ method in, 117
 Gardeners' Benevolent Institution, 183

- Gladioluses, 34
 Glass cases, 54, 81
 ,, walls, 97, 162, 197
 Gossip, garden, 157, 199
 Grape, Barbarossa, 111
 Grape growing, hints on, 170, 240, 279,
 294, 328
 Heaths, Cape, culture of, 246
 Hollyhock exhibition, 281
 Horticultural Society, 25, 253
 ,, ,, prize list of, 79, 103
 ,, ,, garden shows, 174
 194, 251
 Impatiens Jerdoniæ, 1
 Ixias, 34
 Kalosanthus, the, 83
 Kew, effects of winter at, 80
 ,, memoranda from, 87, 177, 250,
 283, 316
 Labels, numbering, 8, 184
 Lapageria rosea, 9
 Leaves, importance of clean, 235
 Lilies, Japan, 6
 Manure, liquid, 329
 Naming plants, 2, 122
 National Floricultural Society, 208, 299
 Nomenclature, botanic, 2, 122
 Nerines, 172
 North of England Seedling Society, 306
 Novelties and new things, 109, 181
 Nurseries, London, 141
 ,, Edinburgh, 302
 Orchard houses and glass cases, 54, 81
 Pansy, the, 311
 Pansy Society, Scottish, 202
 ,, Hammersmith, 210
 Peach, the Salway, 370
 Pears, new, 151, 237
 Pelargoniums, seedling, 257, 261
 ,, lists of, 266, 332
 Pentstemon, genus, 344
 Philesia buxifolia, 65
 Picotee, period of flowering, 65
 Pink, the, 262
 Pinus Gerardiana, 170
 ,, persica, 170
 Pinus monticola, 232
 ,, pseudo-strobus, 134
 ,, insignis, 296
 ,, radiata, 298
 Plants, winter blooming, 26
 Plums, list of, 27, 58
 Polygala, genus, 231
 Pomological Society, 108, 114, 199, 263,
 301, 342
 Pot Rose, autobiography of a, 42
 Rhododendrons, naming, 2
 ,, Bootan, 242
 Roses from seed, 11
 Rose, Bath White Moss, 176
 ,, Duchess of Norfolk, 289
 Roses, town, 227
 ,, of 1854, 289
 ,, misrepresentations of, 112
 Rose Garden, Supplement to, 56
 Rose pruning, 77
 Rose, rhapsody on a, 356
 Royal Botanic Society's exhibition, 186,
 217, 241
 ,, ,, plan of flower beds, 314
 Royal South London Floricultural So-
 ciety, 291
 Seeds, to keep from birds, 75
 Slough exhibition, 343
 Stoke Newington Chrysanthemum Society,
 375
 Strawberries, new, 275
 Strawberry leaves, cutting off, 339
 Taxodium sempervirens, 264
 Tottenham Park, Gardens at, 273
 Trentham Hall, gardens at, 99
 Trifles to be remembered, 22
 Tulips, grouping, 89
 Tulip, George Hayward, 193
 Tulip show, national, 188, 211
 Vegetables, notes on, 136, 234
 Verbenas, bedding, 326
 Walls, glass, 97; v. brick, 162, 197
 Walls and their overcoats, 258, 323
 Wellingtonia gigantea, 102
 Winter, effects of, 79, 132, 177
 ,, ,, at Kew, 80

END OF VOL. VII.



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