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THE
FLORICULTURAL
CABINET,
AND
FLORIST'S MAGAZINE.

Conducted by

Joseph Harrison

Editor of the

GARDENERS' RECORD,

&c. &c.



J. & J. Parkers
London, Whitaker and Co. Ave Maria Lane

THE
FLORICULTURAL

C A B I N E T,

AND

FLORISTS' MAGAZINE.

JANUARY TO DECEMBER, 1838.

VOLUME VI.

CONDUCTED BY MR. JOSEPH HARRISON,

NURSERYMAN,

DOWNHAM NURSERY,

NORFOLK.

LONDON:

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PREFACE.

DURING the past year the taste for gardening, particularly Floriculture, has made rapid advances, and the very extensive circulation of Monthly Periodicals on Floriculture, as well as other works on Gardening, have very considerably increased the stimulus to these delightful pursuits.

The continued increase in the circulation of the Floricultural Cabinet, is a gratifying assurance that our efforts have been approved, and it is with great pleasure that we are now enabled to supply complete sets from its commencement.

Our endeavours have been to obtain Figures of the newest and best plants of recent introduction, and to give the earliest information of such, and where they may be obtained, with all particulars we could collect respecting them. In order to effect this, and to obtain a knowledge of the best way of managing any ornamental plants, &c. we have very frequently visited all the public nurseries in the vicinity of London, and elsewhere, as well as private establishments, in order to collect useful facts, that they might be inserted in the Cabinet.

Many of our correspondents have, from time to time forwarded questions on Floriculture which have been inserted, with a view to obtain answers to them. When an immediate one has been required, we have attended to it soon after, but when expressed in a general manner for our Readers, we have judged it best to let it stand over, so that other opinions might be furnished. We shall at all times be glad if our Readers will thus favour us, and on a reperusal of back Num-

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bers many queries will be found requiring answers. We are fully assured many of our Readers have it in their power to give useful and practical replies, and we do most respectfully ask their aid. It is our intention to commence answers to all past queries in every former Number that have not had answers, and such to be embodied in every future Number.

A monthly notice of all new Works on Gardening and Reviews, and remarks on every thing published in them, or in monthly and quarterly publications on Floriculture, will be given every month.

We again beg to record our grateful acknowledgments to our Friends who have so kindly contributed the valuable and interesting information, which we have had the pleasure to insert in the present Volume. We most respectfully solicit their continued co-operation. Some persons are deterred from communicating information, because the subject they are so familiar with does not appear of the interest it has in reality. Whatever is an improvement, however small, we shall be glad to be entrusted with them, and we will present them in a form that will be creditable to the author as well as ourselves, and thus contribute to make the Cabinet still more useful and valuable in proportion.

Downham, November 20th, 1838.

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THE
FLORICULTURAL CABINET,
JANUARY 1st, 1838.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.
ON THE CULTURE OF THE DAHLIA.

BY MR. ARTHUR BARBER, GARDENER TO THE HON. MAJOR LEGGE, BLACK-
HEATH, KENT.

THE very great respect I have for the manner in which your extensive Cabinet is conducted, has prevailed upon me to submit a course of treatment with regard to the culture of the above-named plant, (the Dahlia); by doing which, perhaps, it may not be amiss to its many readers, first to elucidate a little of its botanical name, and then to treat of its culture.

In regard to its botanical name, we find, on having reference to works which have been conducted by some of our most distinguished cultivators, that it was given in honor of Dahl, a Swedish botanist, but as it appeared that this name had previously been given to a very different plant, botanists changed the name to Georgina, in honor of Lady Holland, who, in 1804 reintroduced the plant after it had been considered lost for upwards of fifteen years; however the first name has become too general to be displaced, and a Mr. Don, a reputed botanist, takes upon himself to say it is correct.

In reference to its culture, I trust the following observations will not be found objectionable, as they have been, I do assure you, made with great assiduity.

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About the middle of the month of March I consider is the best time to begin propagating the Dahlia; take your roots, otherwise tubers, and insert them in pots according to the size of your tubers, so that they have about an inch and a half or two inches clear around them; then take some fine light mould, (taking care to have an inch or two of potsherds at the bottom of your pots, to give good drainage) say one half leaf mould, and the rest kitchen garden earth, with a small portion of sand added to it, incorporate them well together and fill your pots (after having placed your tubers in them) taking care that the crowns of the tubers are above the level of the soil, and place them in a moderate hotbed till they have issued shoots two or three inches in length. (If a whole frame be used, I would recommend about three inches of sandy soil to be sifted over the dung, on which the tubers are to be laid, and covered with similar soil, also taking care to leave the crown of the tuber above the level of the soil, and also that the heat be not too violent, and when watered, to sprinkle them with warm water.) At this time have in readiness some pots eight inches in diameter, and an equal quantity four inches in diameter, so as when the one is placed in the other, there shall be two inches distance or thereabouts from circumference to circumference. After you have got your pots ready, take care to have plenty of potsherds to lay at the bottom, two inches of them will not be too many, as it is very requisite, and a matter of great importance, to carry off that superfluity of moisture which is occasioned by the too frequent watering; after having put your potsherds in, proceed to put in your compost, let it be such as will not retain too much wet, and on the contrary, such, as will imbibe a sufficiency of moisture.

I have found the following compost to be of great utility in the propagation of the cuttings, namely, one half leaf mould, and the remainder kitchen garden earth and sandy loam, in the proportion of two of the former to one of the latter. After having placed corks in the bottom of the smaller pots, so as to make them water tight, put your compost into the larger pot, until the edge or rim of the smaller pot when placed in it, shall become level with that of the larger pot: after having done this, prepare yourself with a sharp knife, and detach the shoots that are fit, that is when they have attained the desired length, taking care to detach them under a joint, or you may take them off by your hand, tak-

ing care to leave as much of the woody fibres at the joint as possible, otherwise the part is apt to rot off, and insert them around the space between the pots, then place them again in the hotbed. You may keep a little water in the inner pot, which is very useful and requisite, for the pot being in a moderate degree porous, it distributes a degree of moisture to the cuttings, which is so very essential to their striking, and the water being of the same temperature as the bed, it may occasionally be used in watering them, and thereby prevent those fatal consequences which are apt to destroy cuttings when watered with cold water; care must be taken not to give the cuttings too much water, as it is apt to drive the plants into leaf and height, and consequently to retard and even diminish the flowering. If water, is given let it be to the roots only, when the sun is shining upon the plants, at other times it may be given over the leaves.

I make it a rule not to plant out Dahlias in the open ground before the end of May, or early in June, so as to escape injury from frost. By this period the cuttings are generally well rooted. The soil to grow them in successfully ought to be a sandy loam. If the natural soil of the situation is not of this kind, a compost should be prepared, I recommend the following. Take about one-fourth well rotted dung, one half light sandy loam, and the remaining one-fourth, peat or bog-earth with a small quantity of leaf mould and road grit added. These ingredients must be well blended together and dug in the soil, for some time previous to your planting them in it. After your soil is prepared, the holes should be made ready to receive the plants, which should be about three feet from each other. In separating the plants, turn the pots upside down, and give it a gentle tap on the edge of your frame, or on any other convenient place, so as to loosen them. Care must be that the fibrous roots are not injured by separating. Then place them singly in the prepared holes, pressing the earth gently to them, and draw a small circle around each, so that when you have finished planting and begin to water, the water must be allowed to settle moderately around them. Having your stakes ready varying in length according to the height of the plants, allowing two feet for insertion in the ground, place them about two inches from the stem of the young plant, if this is not attended to now, it will hereafter be somewhat difficult, owing

to the roots increasing and the insertion of the stakes at this period, would injure them. As the plants advance in height, take care that they have timely support, by tying the stems to the stakes with bass.

When the flower buds begin to appear, you must not let your plants lack moisture, if this is not attended to, your flowers will be very weak; indeed, from the first planting them out, they ought not to lack water. To have fine flowers you ought to divest the branches of the small side shoots, also of buds which appear to cluster, leaving no more than one bud on each stem; this is practised by Florists, whose flowers are for competition.

About this time you will begin to find yourself very much troubled with those unwelcome guests, the earwigs, by committing extensive ravages among the flower buds, indeed, I know of no other tribe of plants which they seem to crave after so much as the Dahlia, and if great care is not taken, by having recourse to some means or other to extirpate them, your prospects as far as regards their flowering, will be entirely blighted; for there cannot be a petal which comes within their reach, but evident signs of their ravages manifest themselves. I have had recourse to various methods, but found none so efficacious in diminishing them as the following. (Moreover, be it observed, that it is a practice with many to mulch the ground with stable litter, so as to create a continual moisture around the plants; this mulching I have found to be an allurement for the insects, for they will conceal themselves even in the pieces of straw, which to find, will be like looking for a "needle in a bottle of hay." If mulching be adopted, let it be that of cow dung, which will answer your expectations in every sense of the word.) 1st, Pots placed on your stakes, with a little dry moss or tow in them, and looked into early in the morning. 2dly, Tow placed round the flower stalks, the insects not liking to ensnare themselves in it; and, 3dly, Bean stalks placed by a piece of string, on the stems or stalks; also pieces of cane soaked in water that had previously some sugar dissolved in it, the earwigs being very partial to things that possess saccharine matter and a dark recess. With regard to taking up your tubers, which is a very important thing, let it not be done too early lest their not being sufficiently ripe, will cause them to shrivel or rot and die. Great care must be taken of the lower end of the stem where it joins the tuber,

and where the eyes are situated, from their chance of being nipped by early frost in October and November; to prevent this, about the end of September or beginning of October, get some dry straw, pease haulm, or dry stable litter (the earwigs being nearly extirpated about this time) and place it around the lower part of the stem. When taken up, they must be gradually dried before they are permanently put away; in doing this, take care to turn them so as all parts shall receive a portion of air, you may then place them in boxes, filled with sand or ashes, leaving the crowns uncovered, as though they were planted. Before putting them away, of course it will be requisite to label them, to prevent confusion when planting them in the spring.

I hope these preliminary remarks will be found to meet the approbation of those who may scan them in your truly useful Cabinet.

Nov. 4th.

A. B.

ARTICLE II.

DIRECTIONS FOR PRESERVING PLANTS IN FOREIGN COUNTRIES FOR A HERBARIUM.

BY J. B.

THIS is a much simpler process than is generally imagined by those unpractised in it, and travellers have been often deterred from collecting specimens by the time and trouble required for preparing them in the way that has by many been recommended.

The chief circumstances to be attended to are, to preserve specimens of plants in such a manner that the moisture may be quickly absorbed, the colours as much as possible preserved, and such a degree of pressure given to them, as that they may not curl up in the time of drying.

For this purpose let a quantity of separate sheets of paper be obtained of a folio size. Common brown paper, upon the whole is the best, except the very delicate kinds, which require paper of a smoother and somewhat more absorbent texture. Blotting paper, however, especially in warmer climates, would absorb the moisture too rapidly, and by repeated damping and drying, would soon be rendered useless. Two boards should be provided, one for the top and the other for the bottom of the masses of papers.

For pressure at home, or when stationary for any length of time in a given spot, nothing serves better than a weight of any kind (a folio book, a large stone, &c.) put upon the topmost board; the great advantage of this is, that the weight follows the shrinking of the plants beneath.

Whilst travelling, three leathern straps with buckles should be procured, two to bind the boards transversely, and one longitudinally. It will be further desirable to have a number of pieces of pasteboard of the same size as the paper, to separate different portions of the collection, either such as are in different states of dryness, or such as are by their hard woody nature might otherwise press upon and injure the more delicate kinds. Thus provided, gather your specimens; if the plants be small, foot and stem; if large, cut off branches of a foot, or a foot and a half long selecting always such as are in flower, and others in a more or less advanced state of fruit.

Place them side by side, but never one upon another on the same sheet; and lay upon them one, two, or three sheets, according to the thickness of the plants, or their more or less succulent nature; and so on, layer after layer of paper and specimens, subjecting them to pressure.

As soon as you find the paper has absorbed a considerable portion of the moisture, (which will be according to the more or less succulent nature of the specimens, and the heat or dryness of the climate or season) remove the plants into fresh papers, and let the old papers be dried for use again, either in the open air, or sun, or in a heated room, or before the fire.

As to the spreading out of the leaves or flowers with small weights, penny pieces, &c. it is quite needless, the leaves and flowers are best displayed by nature in the state in which you gather them, and they will require little or no assistance with the hand, when laid out upon papers, to appear to the best advantage, especially if put on carefully when fresh gathered.

If the specimens cannot be laid down immediately on being gathered, they should be preserved in a tin box, or failing that, in a rush basket, where they will keep for a day or two if the atmosphere be not very much heated.

Some very succulent plants, such as Cacti, Semperviva, Seda, Orchidous plants which grow on trees, &c. require to have their specimens, plunged in boiling water for a few seconds before

they are pressed to destroy life, and thus accelerate the process of drying.

Plants with very fine, but rigid leaves as the Fir tribe and the heaths, and some with compound winged leaves, to prevent their leaves falling off, or their parts separating, may either be treated in the same manner, or dried in very hot paper, or by means of a hot iron.

In many cases, especially in warm climates, the traveller will find the process accelerated by exposing the parcel (hung up and properly secured) to the open air when the weather is favourable, and the circulation of air through it will be promoted if the sheets on which the specimens are laid be placed alternately back and edge. In tropical countries he will find it necessary to shift his specimens, at least once a day, and by changing them into hot paper, and crowding such specimens as are dry, he will be enabled to form a considerable collection in small compass, and in a very short time. Four or five shiftings will generally be sufficient to complete the process, which is ascertained by the stiffness of the stems and leaves, and by the specimens not shrinking when removed. They should then be placed between dry papers, and formed into parcels of moderate thickness, and either packed in boxes, or well secured as parcels covered with oil-cloth.

Palms having their fructification and leaves very large, can hardly be subjected to pressure; a few flowers should be pressed, and the whole cluster of flowers and fruit, as well as a leaf, may be simply dried in the air, and afterwards packed in boxes for transportation.

The greater number of Cryptogamic plants may be dried in the common way, mosses that grow in tufts, being separated by the hand. But both mosses and lichens, as they can at any future time be expanded by damping, may be dried by the traveller without pressure and put up either, each species separately or several together, in small canvas or paper bags, carefully marking the place of growth and the date when gathered.

If the fruits of plants are of a small size so as to be preserved in a herbarium, they should be gathered with the leaves and branches, as are the flowers; if of a large size they should be kept separate. Dry fruits demand on care, except that those which split into valves, should be tied round with a little pack thread. Pulp and fruits are only to be preserved in spirits, or

in pyroligneous acid, diluted in the proportion of eight parts of water to one of the concentrated acid. In all cases the separate fruits whether dried or preserved in a fluid, should have a number attached to them, referring to the flowering specimen of the plant. Seeds, whether for examination, or intended to be sown, should be gathered perfectly ripe, be put in brown paper bags, and kept dry in a box.

With the specimens of the fruits and seeds, there should be slips of paper, on which are to be written the uses, native name, and general appearance of the plants, whether herbaceous, a shrub, or tree, its sensible qualities, and the colour and form of the flowers; its situation, if dry, or damp, the nature of the soil, the elevation above the level of the sea, and the date when gathered.

As soon as a sufficient number of specimens are collected, no time should be lost in transporting them to their place of destination, since in warm climates especially they are liable to the attacks of insects. These attacks, which are often completely destructive of the specimens, may in many cases be prevented by pitching the boxes, and by putting in them, or in each parcel, cotton dipped in petrolium, spirits of turpentine, or small pieces of camphor, and the captain of the vessel should be particularly requested to keep them in a dry or airy part of the ship.

Specimens of the woods of from six to eight inches in length, the entire round of the trunk or branch of small, and segments from centre to circumference of the larger kinds, in both cases, with the bark, should also be preserved, not only of the more remarkable trees, but also of the woody climbers, which often exhibit peculiarities of structure highly interesting to the botanist. When specimens of woods are preserved, they should be marked with numbers, corresponding with the flowering branches of the tree in the collection of specimens; and when flowers cannot be obtained, a small branch with leaves or fruits should always be taken.

Gums, resins, and other remarkable products should also be collected, their uses, if known, noted, and reference made by numbers to the plants they belong to.

Useful and ornamental plants would of course form the most important part of such collections; but even the weeds of foreign and little known countries, the grasses ferns, mosses, lichens,

and sea weeds will prove extremely valuable to the scientific botanist.

London, Nov. 1837

J. B.

ARTICLE III.

SOME REMARKS UPON MR. MAJOR'S PAPER, Vol. V. p. 247-8.

BY JOHN ADEY REPTON, ESQ. OF SPRINGFIELD.

MR. JOSHUA MAJORS'S remarks on the pruning, thinning, &c. of trees in plantations are very just, and well deserving of notice, as is the choice of trees that are likely to remain where planted, and his recommendation to cut down from time to time such trees that are beginning to encroach upon each other.

In thinning out it is always advisable to preserve the outside trees of the woods or plantations, (which are generally the best) but more particularly to avoid taking away those trees that are most exposed to the cold winds, as they afford shelter to the inner trees.

It is difficult, I believe, to persuade nine out of ten persons to cut down an old tree, which like an old friend, in spite of all its deformities, are frequently cherished by the proprietor, but a man of considerable taste, or one who has a painter's eye, can have but little hesitation in condemning a deformed tree, and particularly when it happens to hide a fine group, or a distant prospect.

It is a vulgar opinion of country gardener's to say, that "if you cut down a tree, you can never put it up again," when the tree itself would be better away.

Mr. Major has strongly objected to the Italian black poplar, and the larch, as tending to overpower and injure the effect of the other trees in the woods. But the larch mixed with others I consider a handsome tree, and has a beautiful autumnal tint, but when too tall, it may be taken away if it should interfere with the general scenery. The great variety of the spruce firs, are very much admired when in a healthy state, and not too much crowded with other trees, they require (whether planted in groups, or as single trees) plenty of toe-room, and when mixed with other evergreen plants, are very desirable near a mansion during the winter months.

Mr. Major is decidedly against the Italian black Poplar, and

against other Poplars, to which I will add the Lombardy, that is, the Turin or Po-poplar (*Populus dilatata*), this tree my late father condemned in every place he visited, more particularly if planted in rows as they are frequently found; the chief objection to them is, their loftiness, they overpower every thing about them. I have myself condemned them in every place where I have had the honour of being consulted. In my professional visit to Prussia in 1822, I found the palace of New Hardenberg quite overpowered with a row of Turin Poplars, and having appealed to the good taste of Prince Hardenberg, he had them all taken down, and the building rose up with all its grandeur. The magnificent palaces of the king of Prussia at Berlin and Potsdam (each more than a thousand feet long) are most wretchedly depressed by the rows of Turin Poplars which appeared nearly twice the height of the buildings.

Having fully condemned the Turin Poplar, I will give one word in its favor, that is, it is useful in hiding any unsightly object, but at the same time, I would plant other trees for future effect, and when these trees begin to answer the purpose for which they were intended, we can then take away the Poplars, or perhaps leave a few of them with their heads taken off. I do not mean that these Poplars are to be planted in rows, but in irregular groups, and of different sizes. There is no general rule in laying out grounds, as every place requires a different treatment; but generally speaking, I by no means recommend planting the valleys, but on the contrary, to clear them of trees, and plant the hills.

Mr. Major concludes his observations by advising us by all means "to keep out the frightful object, the black Italian Poplar," to which I may add the same to the Turin Poplar, which disfigures the beautiful scenery of England. Yet upon visiting my friend Mr. Nicholas at Hammersmith, I set my face against the rows of Poplars in his grounds, but upon approaching those near the pond, I found the trunks large and magnificent, and may be truly admired, I think that if the heads of these had been taken off, they would have been very much improved.

There is a row of deciduous trees facing the Thames, and being allowed by Mr. Nicholas to take down one tree only, we obtained from the windows of the house, a fine view of the bend of the river.

R. A. J.

ARTICLE IV.

A DESCRIPTIVE LIST OF CAMELLIAS.

BY CAMELLIE.

Continued from Vol. V. p. 268.

- ELEGANS Loudonensis*, double large light rose, good.
atro rubens, double dark red.
Fairlea, double dark red.
alba, single white.
Futting, double dark red, white spot, fine form.
Marmorata, semi double red, very large.
Waldakii single white.
Anemoneflora alba, double white.
Ellenora, double dark crimson red.
Gardenerii, double white pink spot or stripe.
versicolor, double dark red white stripe.
semiduplex, semi double light red.
 " *alba*, semi double white.
longifolia, single long leaved red.
grandiflora, single red, very large.
rosea, double light red, very good.
speciosa, double dark red, very fine.
rotundiflora, single round leaved red.
rubricaulis, semi double red white spot or stripe.
cardinalis, double dark red.
carnea, double flesh-coloured.
argentea, single dark red
crassifolia, double dark rose, very good.
Warratah purpurea, semi double.
splendens, semi double dark red,
Belle rosalie, semi double dark red, large.
papaveracea, single dark red, large.
rosa sinensis, double light rose, good.
Knightii, single dark red.
Gussonia, double dark rose, fine.
coccinea, semi double dark scarlet.
Brouayana, double rose white spot, very fine.
sanguinea, single blood red.

- Bedfordii*, double dark red, very good.
Conchiflora, double rose.
Viorneani, double rose white spot or stripe.
dilecta, double blood red, very fine.
Dorsetii, very double dark red, white spot or stripe, fine.
fulgida, semi double dark red.
Elphinstonii, very double dark red, fine .
amabilis, single white.
Clintonia, double red and white spot or stripe, fine.
Simsii, single dark red.
minuta semi double, dark rose, small flower.
elegans, Chandler's double rose, very good.
Dianthiflora semi double red small white spots.
Dianthiflora carnea, semi double, flesh coloured.
rubro punctata, single red spotted,
Acubaefolia, semi double light red.

(*To be continued.*)

ARTICLE V.

OBSERVATIONS UPON THE DAHLIA.

No. II.

BY A STAR IN THE EAST.

My former communication having met with your approval by an insertion in the Cabinet, I again address you with observations No. 2, and am sorry I have not ere this had an opportunity to do so; during the interval another Dahlia season has terminated, and the character of the different kinds has been proved, and founded on the grower's own experience. The past season, has in general, I have the satisfaction to say, produced a marked improvement in our collections by the addition of many very superior flowers; and although numerous has been the deceptions practised upon the purchasers, by having false recommendations of the qualities of the sorts, I doubt of its being repeated as those persons who have had a little experience in the matter, will be more wary in future.

I have very frequently myself grown most of the seedlings sold out this year, and when in bloom I made notices of the qualities of each, that I might be guided upon their merits another season. I now submit to those readers of your Cabinet who are Dahlia growers, the remarks, judging it might be of use to a great part of them, and as the season is drawing nigh when the plants are sent out, I shall be glad to see its insertion in an early number.

December, 18th, 1837.

Girling's Ruby is a first rate show flower, defective in only being rather small and the colour not being sufficiently decided. It requires to be grown strong, and the branches well thinned away.

G. Suffolk Hero, is another superior flower, and like the above, indispensable to a collection.

G. Topaz, very fine colour, and moderately good for showing, but not to be depended upon.

G. Painted Lady, good formed flower and prettily laced, but too small for show.

G. Master Ransom, forms an improvement upon *picta formosissima*, from which I have no doubt it is a seedling,

G. Goliath, large, and not fit for show.

Jeffrey's Rosea Elegans, fine bright rose, very uncertain, but in its true character one of the best flowers in existence.

J. Sir Robert Harland, a large flower, generally appearing with notched petals, and rather deficient in colour, but may sometimes be obtained good enough to show.

Cameron's Shakespeare, quilled purple, dull colour, and only a poor flower.

C. Countess of Mansfield, moderate, sometimes appearing with a hard eye.

C. Duke of St. Albans, very paltry.

Squibb's Shakespeare generally comes most beautifully shaded orange and red, the flower is not full enough for a small stand, but will be found very useful in a 24 or upwards.

S. Mary of Little Park, is very pleasing in colour, but, large, wide, and ugly in form.

Bristol Perfection, very dark, uncertain, and the flower rather too thin, but occasionally fine.

B. Vicar of Wakefield, is only moderately good, too flat, and the back petals completely fall, before the flower is expanded, and the colour is dull.

Gaines's Ada, a large blush flower, moderately good, but too thin and flat for a stand of less than 36.

G. Countess of Jersey, petals too much involuted to form a show flower.

G. Brilliant, similiar but worse than the last.

G. Sergeant Talfourd, is too much quilled, and though of a pretty colour, the blooms are too tender to carry to an exhibition.

Barnes's Rival Queen, a very neat formed flower, but not of the right stamp to qualify it for competition with our prize flowers.

B. Regulator, is much too starry and hard in the eye, ever to obtain approval.

Salter's Ion, trash, have grown two plants of this, neither of which has produced a double flower.

Harding's Mary Queen of Scots, is very good when perfect flowers can be obtained, which is seldom. It requires to be grown strong and well cut away.

Foster's Australia, is a crimson red frequently shaded, rather too thin of petals around the eye, but may sometimes be introduced as a show flower.

F. Beauty of Kingscote, is a splendid large light flower with a deep and regular lace of crimson purple, and though rather flat in form, no collection should be without it.

F. Eva, is one of the best flowers grown, almost every bloom produced being perfect, and I have no doubt it will be in great demand the coming spring.

F. Kingscote Rival, a fine bright pink coloured flower, the petals are rather pointed, and is rather too flat in form, notwithstanding which, it is a good flower.

Knight's Lady Webster, is very uncertain, curious colour, and oftentimes coming with an open eye, but when good the form is unique; it will only come in as a front row flower in a stand, in consequence of being rather small.

K. Victory, a bold deep crimson flower, not cupped, but of very superior form, nearly always coming full and fine; all who have seen it, holds it in high estimation.

Diadem of Perfection, light rosy crimson, beautiful form, but rather small.

Thompson's Rival, beautiful shaded light crimson and dark, finely cupped, but often the flowers are disfigured, with a hard green eye.

Faulkner's White Perfection, is an improvement upon Mrs. Wilkinson, which it much resembles both in colour and form.

Springfield Rival Major, is a fine large deep crimson flower, though not equal to Knight's Victory.

General Gomez, a disgrace to the grower who sent it out.

Dray's Anacreon, only fit for growing to please the curious.

D. Blandina, rather small and somewhat inferior to others of the same class.

D. Coriolanus, light purple, moderately good formed, but rather too flat.

D. Glory of the West, is the best of this person's seedlings, I find it rather difficult to procure a good bloom, now and then however it is beautiful, in which state it is decidedly the most superior in its class.

D. Goldfinder, is similar to Blandina, small and inferior to several others of the same class.

D. Lord Ashley, deep purple, flat, and only very moderate.

D. King Harrold, a very large and indifferent flower.

Harrison's Agnes de Castro, is distinct and striking. The blooms are frequently not full enough, but occasionally a show flower may be obtained.

Widnall's Lady Dartmouth is very uncertain, but when obtained in its true character, beautiful.

W. Juliet, a good showy flower, but somewhat uncertain.

W. Marchioness of Tavistock, a pretty good flower when caught in perfection, and an improvement upon Royal Adelaide, like it however, it is too flat.

W. Victoria, a very neat and pretty flower, but almost too small for showing.

W. Sir W. Scott, an improvement upon *Picta formosissima*. but the petals are so much pointed as to disqualify it for exhibition.

Barratt's Stuart Wortley, is a light purple, uncertain, and though not first rate is a pretty good flower.

Striata perfecta, complete trash.

Wilmer's Queen's superba, is exceedingly uncertain, generally appearing with the fatal disfiguration of an open eye; now and then it may be obtained very fine, in which state it is the best yellow that has come under my notice.

Elphinstone's Conqueror of Europe, a very good flower, occasionally its principal fault is, so frequently coming full of florets, and the flower not being quite full enough; notwithstanding, it is indispensable to a collection.

E. Miss Elphinstone, is rather too much quilled, and too flat, but a good flower.

E. Rosa superba, deep rose, good.

E. King of Beauties, paltry.

E. King of the Yellows, very fine bright yellow, good show flower, though not first rate.

E. Purple Perfection, now and then very good, but exceedingly uncertain.

E. Queen of Trumps, beautiful colour and neat flower, but unless grown very strong too small for showing.

E. Mrs. Broadwood, similar to the latter, small, and requires to be grown strong.

E. Marquis of Northampton, is a very fine full show flower, but from being somewhat uncertain, it should be divided into three plants and sown early by which means a first rate bloom may almost at any time be gathered, no collection should be without it.

Elliott's Berkshire Champion, is a beautiful dark flower frequently shaded with light purple, almost always appearing perfect, and is one of the most unique flowers grown. On account of the flowers inclining to be rather small it requires to be grown rather strong, and I understand very few people has had the good fortune to possess it, consequently the coming season will bring a great demand for it.

Harris's Miss Harris, is a curiously suffused light purple and white flower, but not fit for show.

Melbury Rival, large crimson, only moderate.

Mayle's Beauty of Bedford, most beautiful shaded purple, and may sometimes be obtained good enough for show, although not of first rate form.

Lane's Sir John Sebright, very uncertain but occasionally pretty good,

(To be continued.)

REVIEW.

The Rose Amateur's Guide. By T. Rivers, Jun. containing ample Description of all the fine leading varieties of Roses, regularly classed in their descriptive Families, their history and Modes of culture; in Two Parts. Part I. The Summer Rose Garden. Part II. The Autumnal Rose Garden.

Every person who takes an interest in this beautiful tribe of plants, ought to procure this very interesting book. It contains a description of a number of the best Roses in each particular class, with some judicious remarks on their culture. It is divided into two parts. Part I. includes remarks upon the following classes of Roses.—

The Provence Rose, The Moss Rose, The French Rose, Hybrid Provence Rose, Hybrid China Roses, Rosa Alba, The Damask Rose, The Scotch Rose, The Sweet Rose, The Sweet Briar, The Austrian Briar, The Double Yellow Rose. CLIMBING ROSES, The Ayrshire Rose, Rosa Multiflora, The Evergreen Rose, The Boursault Rose, Hybrid climbing Roses.

Part II. Perpetual Roses, The Bourbon Rose, The Chinese Rose, The Tea-scented Chinese Rose, The Miniature Rose, The Noisette Rose, the Musk Rose, the Macartney Rose, Rosa Microphylla, an abridged list of Roses.

We have selected the Remarks upon one class of the Summer Rose Garden, and one from the Autumnal Rose Garden, that our Readers may form an estimate of a Work so well worth possessing.

HYBRID CHINA ROSES.

“The superior varieties of this fine division give a combination of all that is or can be beautiful in roses, for not only are their flowers of the most elegant forms and colours, their foliage of extreme luxuriance, but their branches are so vigorous and graceful, that perhaps no plant presents such a mass of beauty as a finely grown hybrid China rose in full bloom. They owe their origin to the China, Tea-scented Noisette and Bourbon roses, fertilized with the French Provence, and other summer roses, and also to the latter crossed with the former; the seeds of such impregnated flowers producing hybrid China roses. These have, in many cases, resulted from accident, but latterly from the regular fertilizing process, as mules or hybrids have been raised from well known parents.

In England, but few varieties have been originated; as the common China rose does not in general ripen its seeds sufficiently for germination. The parents of Brown's superb blush, which is an English hybrid, raised by the late Mr. Charles Brown of Slough, one of the most scientific and persevering cultivators, cut off in the prime of life, was the old tea-scented rose, Rosa

indica odorata, impregnated with some hardy summer rose. Rivers's George the Fourth is also an English rose; but as this came by accident, its origin is not so well ascertained. *Rosa Blairii* is also English, and raised from the yellow China, impregnated with some variety of hardy rose. All the roses have the true characters of the family; leaves smooth, glossy, and subevergreen; branches long, luxuriant, and flexible. They give a long continuance of bloom, but they never put forth secondary or autumnal flowers. This is a most peculiarly distinguishing trait, and an interesting fact. Impregnate a Bourbon, China, or Noisette rose, all abundant autumnal bloomers, with the farina of a French or Provence rose, and you entirely take away the tendency to autumnal blooming in their offspring. They will grow vigorously all the autumn, and give a long, but not a secondary series of flowers. Some of these hybrid China roses, produce seed abundantly, which is rather a remarkable feature, as so few hybrid plants are fertile.

Hybrids produced from the French rose impregnated with the China rose, are not of such robust and vigorous habits as when the China rose is the female parent; but perhaps this is an insertion scarcely borne out by facts, for the exceptions are numerous, and, like many other variations in roses and plants in general, seem to bid defiance to systematic rules. By some cultivators the roses of this division have been much more divided than in my catalogue, forming "Hybrid Noisettes," "Hybrid L'Isle de Bourbons," &c. &c.; but all these owe their origin to the common China rose, their offspring may with justice be called hybrid China roses.

Those who have been raised from noisette roses have a tendency to produce their flowers in clusters; those from Bourbon roses have their leaves thick, leathery, and round; those from the tea-scented have a delicate and grateful scent; but all have those distinguishing family traits as before given, and accordingly they group beautifully. As this is the grand object of the amateur cultivator, it seems far more preferable to arrange them as one family, than to make several divisions with but very minute distinguishing features. It is a difficult task to point out the best in this division, as they are nearly all well deserving of cultivation. However, by making a few remarks, such as cannot be given in a descriptive catalogue, I may perhaps be able, in some measure, to direct the choice of amateurs to those most worthy their notice.

Adolphe Cachet is a rose not much known; but a very double, well shaped and distinct variety. *Attelaine de Bourbon*, the *Athelin* of some French catalogues, is a hybrid Bourbon rose, scarcely double enough, but exceedingly beautiful. It has finely shaped flowers, and blooms in large and erect clusters; its colour is of that vivid rose so peculiar to the Bourbon roses. As this bears seed freely, it will probably be the parent of numerous fine varieties. *A fleurs marbré* is a small, but very brilliant marbled rose, one of the prettiest of this division. *Adele Ancelin* is a most delicate coloured and beautiful rose, very perfect in its shape, and distinct in character.

Bonne Geneviève. This rose, under the name of "*Beauté ethereal*," and described as "purple margined with crimson," has been sold extensively. It is a most beautiful and perfectly imbricated rose. *Brennus*, the *Brutus* of some collections: this very superb rose, will form a finer object as a pillar rose or standard, than as a blush; its luxuriant shoots must not be shortened too much in winter pruning, as it is then apt to produce an abundance of wood, and but very few flowers. This rose, often puts forth branches in one season from eight to ten feet in length; if these are from a dwarf, and are fastened to a wooden or iron stake, and not shortened, the following season they will form a pillar of beauty but rarely equalled. *Blairii*, a rose not so much known as it deserves to be, is a very distinct and unique variety, so impatient of the knife, that if pruned at all severely, it will scarcely put forth a flower: it is perhaps better as a pillar rose, than grown in any other mode, as it shoots ten or twelve feet in one season, and its pendulous clusters of flowers which are produced from those long shoots unshortened, have

a beautiful effect on a pillar. Beauty of Billiard is, of all roses, the most glowing and beautiful: its colour is described in the catalogue as scarlet; but it is rather a fiery crimson, so vivid that it may be distinguished at an immense distance. This rose also requires care in using the knife; the extreme tips of the branches may be cut off, and some of them thinned out; it will then bloom in great perfection, but care must always be taken in winter pruning to leave its shoots nearly their full length. Becquet is a pretty distinct dark crimson flower, very double and well shaped. Belle Marie is a first rate rose, finely shaped, and a good show rose. Belle Parabere is a very remarkable variety of inconceivable luxuriance; its flowers are very large; it will in good soils, as a standard, soon form a large umbrageous tree. Belle de Rosny is a hybrid noisette, blooming in very large clusters, of first rate quality. Catel is one of our finest dark roses, very double and finely shaped, quite worth the notice of the amateur. Coccinea surperba, or "Vingt-neuf juillet," is a rose alike beautiful in its flowers and foliage; in early spring its leaves and shoots are of a most vivid red, and this appearance they retain the greater part of the summer; its flowers are brilliant in the extreme, crimson purple shaded with scarlet: the shoots of this rose must also be left at nearly their full length.

Coupe d'Amour richly deserves its name, for it is a beautiful neat rose, quite perfect in its form and colour.

Coronation is one of those purple shaded roses, inclining to slate, imbricated, and very perfect in its shape. Chatelaine is a hybrid Bourbon rose, dove coloured, finely shaped, and very good. Coutard may be safely recommended as a most perfect and good rose, flowering with great freedom, and beautiful either as a dwarf or standard. Colonel Fabvier, also a sterling good rose, is remarkable for its delicate fragrance. The Duke of Devonshire is an imbricated rose, one of the great favourites of the day, and most deservedly so, for its rosy lilac petals are so delicately striped with white, and its shape is so perfect, that it will always be admired. Duc de Choiseul is not a new variety; but as it is between the China and Provence rose, which is a species of hybridisation not very common, it is interesting: it forms a very fine standard. Duc de Choiseul punctue, or the spotted, is a most distinct and pretty variety; this makes long and slender shoots, and is well adapted for a standard. Daphne is a hybrid Bourbon, and one of the most beautiful of roses: it has the brilliant colour of that interesting group, and the fine foliage, but its flowers are much more double than the generality of Bourbon roses. Dr. Guepin is a most perfect shaped, globular rose, quite distinct in its character; this, with a few others, which will be noticed in their turn, have beautiful spherical-shaped flowers, singular and pleasing. Eugene Barbet is also one of these finely formed roses, with dark purplish crimson flowers of first rate excellence. Elizabeth Fry is a hybrid noisette, blooming in large clusters, a most brilliant and pleasing rose. Fulgens, or the Malton rose, is certainly one of the most brilliant and beautiful of roses; the entire plant is also worthy of admiration, independant of its magnificent globular scarlet flowers, as its foliage is so abundant, and so finely tinted with red; its branches so vigorous, and yet spreading so spracefully, that it forms one of the very finest of standard roses. Fleurette offers quite a contrast in its small delicately coloured, and finely shaped flowers, it is a desirable and pretty variety. Fimbriata is a most curious and beautiful rose; each flower leaf is cut something like the petals of a pink, and as it is imbricated, it looks more like a large self-coloured carnation than a rose. General Lamarque is one of the darkest of roses, a most luxuriant grower, and very distinct: in wet weather it is apt to lose its colour, and to change to a dull brown."

(To be Continued)

PART II.

LIST OF NEW AND RARE PLANTS,

*Noticed since our last.*1. BOUSSINGAULATIA BASSELOIDES. *Basella-like* [*Bot. Mag.* 3620.

CHENOPODEÆ. HEXANDRIA, MONOGYNIA,

A native of South America, near Loxa, in the Quintinian Andes. Mr. Tweedie sent it to the Glasgow Botanic Garden from Buenos Ayres. It is a very desirable hothouse plant. The root is fleshy and knotted, much in the way of the common border plant, Solomon's Seal, and each extremity throws up a rounded and branching twining stem. The leaves are fleshy, cordate, and at the lower part of the stem, are from four to five inches long. The flowers are produced on graceful racemes, each from three to five inches long, bearing numerous, greenish-white blossoms, which are highly fragrant. Each blossom is about a quarter of an inch across. The racemes of flowers are produced at the opposite of the leaves, and nearly every leaf is thus accompanied. The plant merits a place in every plant stove. It is very probable it would flourish well in a good greenhouse. Boussingault, a celebrated naturalist and traveller in South America.

2. ANIGOZANTHUS MANGLESII, var. ANGUSTIFOLIA. *Narrow-leaved.* [*Bot. Reg.* 2012.

HEMERDACEÆ. HEXANDRIA MONOGYNIA.

A native of the Swan River, from whence it was sent by Sir James Stirling to R. Mangles, Esq. The variety is distinct from the beautiful *A. Manglessii*. It differs in having much narrower leaves and smaller flowers, which are rather of redish orange, colour at the base an entire green; these being covered with feathery hairs, which have a pretty effect. The plant is an herbaceous perennial, the flower stems rise about a foot high, each plant is of easy culture, but in order to succeed well, it requires to have a small portion of chalk mixed with loam and peat. It is not very tender, only requiring the protection of a frame in winter. *Anigozanthus*, from anistho, I rise up, and anthos, flower.

3. COSMUS TERMIFOLIUS. *Fine leaved.* (*Bot. Reg.* 2007. ✓)

ASTERACEÆ. SYNGENESIA SUPERFLUA.

Another interesting and handsome flowering annual from Mexico. Seeds of it had been presented to the London Horticultural Society, by G. F. Dickson, F. H. S. in the garden of the Society, it has recently bloomed. The flowers are more than two inches across. The disk is yellow, the petals are of a fine rosy purple, and make a very showy appearance. The beauty of the foliage is very striking having a fennel-like appearance, and with it the flowers make a fine showy contrast. The plant grows to about two feet high. When the seeds are sown late in the spring, the plants usually bloom so late in autumn that seeds can rarely be obtained, but by sowing very early in spring in pots, and transplanted out, they bloom early and ripe seeds may be gathered. Or if sown late in summer in pots, and be preserved in a cool frame or Greenhouse through winter, such plants turned out early in spring will succeed best, and bloom through a great part of the sea-

son, and its beauty will amply compensate for such attention to its culture. *Cosmea*, from *kosmos*, beautiful, in allusion to its appearance.

4. *DOMBEYA CANNABINA*, *Hemp Dombeya* (Bot. Mag. 3619.

BYTTNERIACEÆ. MONODELPHIA POLYANDRIA.

A native of Madagascar, and was sent home by the late Charles Tellfair Esq. to the Glasgow Botanic Garden. The plant has much the habit and appearance of *Astropœa Wallichii*. It has the less spreading petals and the long staminal tube of *Astropœa*, but the inflorescence and the absence of involuare of *Dombeya*. The plant bloomed for the first time in the stove at the Glasgow Garden in 1837. The flowers are produced in a corymb of many closely placed flowers, which are white, having a large staminal tube, twice as long as the flower; it is white, with a tinge of red. *Dombeya*, in Compliment to Joseph Dombey, an eminent South American traveller.

5. *CAMPANULA BARBATA*, var. *CYANEA*. *Dark blue-bearded Bell flower*. (Brit. Flow. Gard. 409.

CAMPANULACEÆ. PENTANDRIA MONOGYNIA.

This variety was raised from seeds in the apothecaries garden at Chelsea, where it bloomed last July. It is peculiarly distinguished from the more ordinary state of *C. barbata* by its dark blue flowers, the usual colour of the original species being a pale blue, and occasionally milk white. The plant varies too in bearing one or more flowers on a stem. Each flower is upwards of an inch long, and the mouth of the corolla about three quarters of an inch across. The stems rise to about nine inches high. It is a very pretty flowering variety.

6. *DRACOPHYLLUM CAPITATUM*. *Round headed flowers*. (Bot. Mag. 3624.

EPACRIDÆ. PENTANDRIA, MONOGYNIA.

A very pretty greenhouse shrub; a native of New Holland. It grows about half a yard high, with erect twiggy branches, similar to the epacris's. The flowers are produced in terminal heads, they are of a pure white, each head contains eight or ten blossoms, and each blossom is about a quarter of an inch across. It is a neat and pretty flowering plant. It is cultivated in the Glasgow Botanic Garden. *Dracophyllum*, from *drakos*, *draco*, and *phyllum* a leaf, from the resemblance of the leaves to those of *Dracœna Draco*.

10. *HIBISCUS LILACINUS*. *Lilac coloured Hibiscus* (Bot. Reg. 2009.

MALVACEÆ. MONODELPHIA POLANDRIA.

A native of the Swan River, from whence seeds were sent into this country by Sir James Stirling, to R. Mangles Esq. Summing Hill, Berkshire. The appearance of the plant is very different to the species long grown in the gardens of this country. The leaves are filiform, parted. The flowers are single, about three inches across, of a pretty lilac colour, whitish towards the base of the petals. It will thrive well in the open ground during summer, but it is probable it will require protection during winter.

8. *PHILIBERTIA GRANDIFLORA*. *Large flowers*. (Bot. Mag. 3618.

ASCLEPIADEÆ. PENTANDRIA DIGNYIA.

Mr. Tweedie sent seeds of this very handsome flowering plant from Buenos Ayres to the Glasgow and Dublin Botanic Gardens, where it has recently bloomed. It is likely to succeed well in the greenhouse, and would be one of the most ornamental of greenhouse climbers.

PART III.

MISCELLANEOUS INTELLIGENCE.

 QUERIES.

ON HEARTSBASE DYING—Having for two or three years past grown a few varieties of this lovely tribe, now such a general favourite. I will feel obliged if you or any of your correspondents could inform me from what cause it is that so many of the plants in my bed this last July went off with some peculiar disease; the plants even when in full bloom, assuming a black appearance, gradually growing yellow, and dying away; nor upon lifting them, in this state, could I discover any worm or other insect at the root. I may mention that I have grown them successfully for two years and they bloomed very well upon the same spot. Could this be the reason of their failure this season? an early answer will much oblige your constant subscriber.

COLYCINTH,

ON DAHLIA FLOWERS.—I have in my garden about forty or fifty Dahlias of pretty fine kinds, but being a new grower, I would esteem it a favour if some reader would answer the following query—I observe in almost all my plants three buds to shoot out from one branch and conclude that two of them should be taken away, leaving the third to flower. Therefore should the bud so left be the middle or centre one, which I think is invariably in a more forward state than its companions, or will the buds on each side of it produce finer flowers, and consequently one of them kept. TRUE BLUE.

 REMARKS.

NEW PLANTS.—*Chrysanthemums*. We visited the nursery of Messrs. Chandler's nurserymen, Vauxhall, to see the splendid show of *Chrysanthemums*, which very far exceeded our expectations, being most strikingly beautiful. We subjoin the following list of what we saw:

- Queen.—Light rose, flower double, moderate size, early.
- Marquis. Light pink, flowers double, large and in clusters, early.
- Triumphant. Pink and buff, large, early
- Bicolor. White and yellow, flowers small, very double, dwarf, early,
- Chancellor. White and pink quilled, flowers large and incurved, late
- Formosum, Incurved white, with lemon coloured centre, early.
- Lucidum. Incurved white, early.
- Enchantress. Incurved creamy white, flowers large, late.
- Spectabile. Quilled white, early.
- Gem. White with pink tips, early.
- Vesta. White, flowers very round, cupped petals, early
- Marchioness. White, with a little pink on the outer petal, early.
- Coronet. Clustered white, round petals, early.
- Imperial. Incurved French white, flower large, early.
- Eminent. Light pink, incurved, late.
- Compactum. White, flowers small, very double, late.
- Goliath. Yellowish quilled white, very large, incurved, early.
- Conspicuum. Crimson, flowers very large, semi double, early.

- Insigne. Pink and red, early
 Magnet. Yellow, flowers rather small, a little quilled, early.
 Elegans. Lilac, flowers rather small, very regular, late.
 Surprise. Paper white, flowers large, early.
 Invincible. Reflexed creamy white, large, very double, late,
 Mirabile. White, buff tint, compact flower, dwarf, early.
 Diadem. Quilled white, early.
 Perspicuum. Quilled Pink, flowers large, late.
 Angelina. Straw colour, quilled, late.
 Rosalind. Quilled pink, early.
 Calypso. Dark rose, flowers small, early.
 Deiance. Silvery white quilled and incurved, late.
 Decora. Rose, flowers large, early.
 Virginia. Quilled white, early.
 Flavescens. Lemon coloured, flowers small, early.
 Eclipse. Incurved paper white, late.
 Adonie. Clustered pink, a little quilled, early.
 Pulcherrimum. Rose, white tips, very double, late.
 Victory. White large reflexed white petals, dwarf, early.
 Celestial. Rosy white, flowers compact, dwarf, early.
 Cleopatra. Pink and buff, early.
 Unique. Light pink twisted petals, early.
 Glory. Large paper white, flat petals, late.
 Grandis. Flesh colour, large flat petals, early.
 Empress. Tasselled pink, flowers large, late.
 Hero. Rose, flowers large, late.
 Eximium. Rose, flowers round, rather small, early.
 Aurantium. Quilled orange, early.
 Rival. Light rose, incurved semi double, late.
 Adventure. Bright yellow, early.
 Sulphureum, pale yellow, flowers in clusters, early
 Penelope. Buff, flowers round, semi double, early.
 Venus. Light rose, with red eye, flowers small, early.
 Diana. Quilled white, late.
 Conqueror. Large French white, flat petals, early.
 King. French white, flowers large incurved, late.
 Striatum. Light rose and red striped, late.
 Champion. Reflexed lemon colour, large flat petals, late.
 Countess. Creamy white, large, semi double, late.
 Grandissimum. Incurved white, late.
 Perfection. Incurved lilac, flowers large, late.
 Aurora. Purple, flowers large and quilled, late.

Physostegia truncata. This new hardy herbaceous plant, is much like the *Dracocephalum* genus, the flower stalks rise about half a yard high producing numerous flowers of a pretty rose colour, spotted in the inside with red. It is well worth a place in the stove or garden, Mr. Young, of Epsom possesses the plants.

Impatiens scapiflora. A new stove species of Balsam from Ceylon, the flowers are of a delicate rosy-lilac colour, very different in appearance from the common Balsam; and are produced in profusion, having a neat and elegant appearance. It has bloomed for the first time in this country (we are informed,) at Mr. Young's of Epsom.

Campolulius Pintestum. A new hot house species, which we saw in bloom at Mr. Low's, Clapton Nursery, the flowers are rather small, of a bright blue colour, and are produced in vast profusion. It deserves a place as a climber in every collection of stove plants.

Loasa aurantiaca. We saw this new and handsome flowering species in

bloom at Mr. Young's, Epsom. It is a greenhouse plant of a twining habit, the flowers are more than an inch across, of a fine deep orange colour; produced in abundance, and hang in a very graceful manner. It is a fine autumnal flowering plant, well worth a place in every greenhouse.

Nemophila atomaria. A new species now in bloom in the greenhouse at Mr. Young's, Epsom, the flowers are not so showy as *N. insignis*, but are very pretty, they are white delicately spotted with blue.

Cborizema manglesii. This fine new species is in bloom at Messrs. Rollinsons, Tooting Nursery. The plant is of a very fine luxuriant habit, much more so than *C. ovata*; and the flowers, though of the same colour as that species are much larger, making a very showy appearance. It well merits a place in every greenhouse.

Thunbergia lutea. This new and pretty flowering species we saw in bloom at Mr. Low's, Clapton nursery, the flowers are about the size of *T. alata*, of a paler yellow colour, without a dark eye. It is a neat and interesting species well worth growing.

Verbena aranana—named in compliment to the Earl of Aran. This beautiful plant proves a great addition to that already interesting tribe, it is decidedly more shrubby than *V. Tweediana*, the blooms are of a bluish purple colour. It originated from seeds sent by Mr. Tweedie, from Buenos Ayres, to the Edinburgh and Dublin Botanic Gardens.

Passiflora. A fine hybrid variety, is in bloom at Mr. Knights Nursery, Kings Road. It has been raised between *P. princess*, and *P. alata*. The flowers have the graceful form &c. of the former, and are of a beautiful cream colour. The plant has the vigorous habit of the latter species. It is a valuable acquisition, and when grown in contrast with *P. princess* will produce a pretty effect

REFERENCE TO PLATE.

Clintonia pulchella. This very neat and elegant little annual is a native of California, where it was discovered by the late Mr. Douglas. Seeds of it were sent to the London Horticultural Society, and since have been liberally distributed through the country. It is a hardy annual, ripening its seeds freely. The plant grows procumbent, rising about six inches high, and producing a profusion of bloom. It is very neat for a small bed, edging for a bed, rock work, or in patches in the general mixture of a border. It deserves a place in every flower garden. Seeds may be obtained of most Seedsmen.

Glycine Harrisonia. A greenhouse plant of extraordinary beauty. The flowers are produced in long racemes, of ten or twelve on each. Each blossom is, at least, three times the size of those figured, our limits not allowing a figure of the full extent. The blossoms at first are white and violet, afterwards changing to yellow and brown.

The plant grows very rapidly, climbing to the extent of twenty feet in a season, and producing a profusion of flowers. When trained under a roof as the vine, the blossoms hanging in abundance, have a beautiful appearance. They are delightfully fragrant, perfuming for some distance around. We do not know the native country of the plant, a seed of it had been sent to a friend of ours, who presented us with the plant. We shall have a number for sale in the course of this spring.



Lisianthus Russellianus



Cosmos tenuifolius



Verbena Arranana

THE
FLORICULTURAL CABINET,

FEBRUARY 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTURE OF HYACINTHS.

BY MR. JOHN FYFFE, GARDENER, MILTON BRIANT RECTORY.

THE Hyacinth may well be esteemed as one of the finest hardy bulbs that adorn the flower garden, the tulip may surpass it in its gaudy robes and tinsel show, but the Hyacinth not only gratifies the eye with its rich and delicate spike of flowers, but charms the beholder with its rich and delicate perfume. The following is the mode which I have practised very successfully in growing the Hyacinth; it may not be new to some of your numerous readers, but it is a sure and certain way to procure fine spikes of flowers provided the bulbs are good, and to others the remarks may be of service.

The compost I use is of the following proportions, one part of vegetable mould, one rotten cow dung, one sand, and one light loam, having them well mixed.

The bed is filled to the depth of two feet, keeping the centre of one foot above the surface of the pathway, which allows all superfluous moisture to escape.

The bulbs are planted in white sand to keep them from rotting before they start.

They are greatly benefitted by being covered with three or

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four inches of leaf mould, or short dung from an old hot bed, which protects them from injury by frost, and enriches the soil. If, however, severe frosts sets in after the bulbs appear above the covering of dung, I protect them with hoops and mats.

By the above mode of treatment I have flowered the same bulbs a second season, with an equally good show of flowers.

J. FIFFE.

ARTICLE II.

ON GRAFTING THE DAHLIA.

BY MR. WRIGHT, WALWORTH.

It happens not unfrequently, that the tubers of Dahlias either have no eyes, or the crown has become so hard and woody, that the young shoot cannot force its way through it. Unless the shoots, for example, slipped off from the tubers in the spring, have attached to their lower extremity a number of incipient buds, indicated by the extremity appearing convex, while the part it was taken from is concave, the new tubers formed during the summer will often be what the gardeners term blind; for though large and fully formed, they are merely attached to a hollow stem, and will not break the following season. This is prevented by taking care to have the slip taken with a convex extremity, or a piece of the tuber attached.

When tubers are found to be blind, the eyes or buds of fine sorts, of which the supply is limited, may be advantageously grafted upon them; picking them out with a grafting knife, so as that a small piece of the original tuber remain attached. On the neck of the blind tuber, cut a notch to receive this bud or eye, which is to be inserted so that the base of the bud be exactly on a level with the surface of the tuber. It is to be fixed in this position with grafting wax. The grafted tuber is then planted in a pot, kept under a glass, and treated like an ordinary cutting. It is scarcely necessary to remark, that the graft bud must not be buried, but left above the surface of the mould in the pot.

When the plants have been forwarded in any of the modes above described, so as to have healthy stems, they may be planted out for flowering about the end of May or the beginning of June, but it is better not to be too early; for one night's frost may do them irreparable injury.

C. WRIGHT.

ARTICLE III.

OBSERVATIONS UPON THE DAHLIA.

No. II.

BY A STAR IN THE EAST.

(Continued from page 16.)

Miss Hortense, Yellow distinctly tipped with white, very remarkable, but not fit for show.

Miss Cook, Cupped red, rather too small for show,

Harding's Metropolitan White, is not a cupped flower, but moderately good, and ought to be grown.

Kington's Incomparable White, which, although very pure in colour and cupped, the flower not sufficiently full.

K. Maid of Judah, a pretty good flower, always well up in the centre.

K. Victorious, very poor and starry.

K. Magnet, only moderate at its best

K. Malbran, similar to the last.

K. Nimrod, fine cupped show flower, best of its class, and also of Kington's seedlings.

Forsyth's Vestal Bride, uncertain, but sometimes pretty good.

Rhoda, small, but pretty flower.

Countess of Longford, very pretty laced purple on a yellow ground, requires to be grown in a rich soil.

Agnes Graham, small and paltry.

Addison or *Louthianum*, a splendid cupped show flower, richly shaded, and indispensibly necessary to every collection.

Seale's Cleopatra, white, a little pointed, but very good.

Nulli Secundus, a dazzling scarlet and good show flower.

Dod's Mary Queen of Scots, sometimes a hard eye, occasionally a good show flower, but not, however, equal to *Dod's Mary*.

Young's Robert Buist, a bold re-flexed show flower.

Harding's Duchess of Montrose, rather too flat, petals sometimes notched, and colour not decided, but notwithstanding these imperfections, it is a good show flower.

Stanford's Rival Scarlet, a good show flower.

Brahmin Superb, uncertain, but occasionally first rate blooms are to be obtained.

Hedlay's Golden Sovereign, large re-flexed bright yellow, only very moderate.

Lady of Oulton, petals involuted, only moderate flower.

Pamplin's Middlesex Rival, very show flower, large and generally to be depended upon.

Etonidn, is somewhat uncertain, but very good in its best character.

Mountjoy's Carmine Perfection, very neat and good show flower.

Jackson's Lady de Roos, a very neat flower.

Whittle Harvey, large loose flower.

Gil Blas, bronze, a good flower

Skirving's Duchess of Sutherland, uncertain, from sometimes appearing with a hard eye, but now and then very fine and first rate.

Rival Sussex, a very good flower, first rate.

Lownde's Bianca, white, of middle size, good flower

Doctor Hawtry, large cupped flower, moderately good, but will not do for a small stand.

Charles Kenrick, good for nothing.

Metropolitan Purple, moderate, but rather too starry.

Brown's Quilled Perfection, occasionally very fine, but very uncertain and rather too much quilled.

ARTICLE IV.

A DESCRIPTIVE LIST OF CAMELLIAS.

BY CAMELLIE.

Continued from p .11.

Floyii, semi double fine red, very large, like *reticulata*, extra.

Rosea, double, very light red foliage, like *myrtifolia*, (new var. from China.)

Imbricata alba, double white with red spot or stripe, fine form.

Kermocina, double dark red, good.

Superbissima, double carmine, white stripes, extra fine.

Fasciculata speciosa, flesh colour, white stripe or spot, extra.

Comperii, double white, red spot or stripe, good.

Jussieua, double light rose, cupped petals, fine form.

Gilesii, double dark red with white spot or stripe, extra fine.

- Variabilis*, double rose, blush or white, sometimes flowers, of all the three colours on the plant at the same time.
- Expansa*, semi double, dark red.
- Blanda*, double blush, Warratah form.
- Epsomensis*, semi double, light red.
- Brownii*, double dark red, large and fine.
- Excelsia*, Rollinson's, double clear white.
- Anemoneflora carnea*, double flesh colour.
- " *rosea*, double light rose.
- " *striata*, double red, white spot or stripe.
- Spofforthiana rosea*, double light rose.
- Woodsii*, double light red, large flower, good.
- Eximia*, double fine red, beautiful form, extra fine.
- Ochroleuca*, double pale yellow, good form, extra fine!
- Nivalis*, double clear white.
- Punctata major*, double blush, red spot or stripe, large and extra fine.
- Concinna*, double fine rose, very good.
- Concolor*, double bright red, very good.
- Ignescens*, double bright red, large flower, fine.
- Frazera*, semi double, light red.
- Susanna*, double white, pink stripes, extra.
- Maculata*, semi double white, pink spots or stripes.
- Martha*, double blush with pink stripes, extra.
- Madieana*, double white, large flower, good.
- Ranunculiflora striata*, double red, white stripes.
- Compacta*, double white, good.
- Incarната*, semi double, flesh colour.
- Gardineiflora*, semi double, pale white.
- Kellyana*, double light red, small white spots, very pretty.
- Smithii*, double light rose, very good.
- Athutii*, double white, very large and good.
- Sabiniana*, double rose, very good.
- Pendula*, Cunningham's, double red, white stripes, extra fine.
- Coronata*, double light red, very good.
- Adelaidii*, double light rose, good.
- Pomponia*, double blush.
- Purpurescens*, single dark red, white spot.
- Pæoniaeflora*, double, very light red.
- " *alba*, double pale white.
- Sweetiana*, double rose, white spot or stripe, extra fine.

- Beckii*, double light red, beautiful form, petals cupped, extra.
Imbricata, double light red, sometimes with white spots, beautiful form, extra.
Perfection, Palmer's, double dark red, cupped petals, one of the finest Camellias known

(To be continued.)

ARTICLE IV.

REMARKS ON THE SHRUBBERY.

BY REV. HENRY HILL, A. M.

HAVING recently derived pleasure and profit from reading the Cabinet, I forward some observations on the Shrubbery for insertion therein, not doubting but the readers will derive some satisfaction in perusing them:—

“THE Shrubbery is a style of pleasure-garden which seems to own its creation to the idea that our sublime poet formed of Eden. It originated in England, and is as peculiar to the British nation as landscape planting. Whilst other arts have been derived from ancient, or borrowed from modern inventions, this has indisputably sprung from the genius of our soil, and is, perhaps, one of the most delightful, as well as most beneficial of all that claim the name of elegant.

Ornamental plantations are now so universally spread over the face of this country, that our island may be compared to a vase emerging from the ocean, into which the Sylvans of every region have set their favorite plants, and the Flora of every climate poured her choicest gifts, for the embellishment of the spot round which Neptune throws his fostering arms. Our ambition leads us to hope that we may add pleasure to the pleasure-ground, by pointing out the beauties of the shrubbery, which must render vegetation an object of admiration and veneration to all classes. I wish to attract attention to the peculiar pleasing properties of each plant, by the remarks of the ingenious, the anecdotes of the ancients, the harmony of the poets, the observations of the physicians, and the reflection of the moralists of all ages. Morality, however, of a gloomy cast will be avoided; for my wish is to give the work like the subject, a smiling aspect,

Though flowering shrubs seem to contribute nothing to potage, and little to Medicine in its present refined state, yet they add greatly to our pleasure, and considerably to our health.

They win us to good humour by their fragrance and cheerful appearance, and produce a serenity of mind by the calm reflections they present to it; thus relieving some of the maladies of the soul, as drugs mitigate the grosser and more perceptible sufferings of the body.

“ The spleen is seldom felt where Flora reigns,
The low’ring eye the petulance, the frown,
And sullen sadness, that o’ershade, distort,
And mar the face of beauty, when no cause
For such immeasurable woe appears:
These Flora banishes, and gives the fair
Sweet smiles and bloom, less transient than her own.”

COWPER.

I shall notice the allegorical allusions, which the eastern nations are accustomed to make by means of flowers, and the fables of the ancient poets and mythologists respecting plants. Thus pleasing ideas may be connected with pleasing objects, and agreeable images convey lively but moral sentiments to the mind, adding to the charms of the country without recourse to romance or useless fiction. These accustom the mind to such violent sensations, that at last it is obliged to resort to an excess of feeling, either of mirth or grief, to prevent that dreaded fashionable lethargy of spirit—*ennui*. Such a habit in the end injures health and consequently shortens life, but a calm and cheerful mind assists in the prolongation and enjoyment of both:

“ Come then ye blissful scenes, ye soft retreats,
Where life flows pure, the heart more calmly beats.”

DELILLE.

It would seem, that the more terrible a sight, and the more violent an impression, the more agreeable to the great portion of mankind, who run with avidity after objects of horror, whilst they pass unnoticed those which produce gentle and agreeable sensations, and would to all appearance rather tremble at the awful thunderbolt of Jupiter, than calmly admire the beauteous horn of plenty. It has been observed that the Volcano near Naples attracts more travellers to the city, than the delicious

gardens, which adorns the shores of that region. The plains of Greece, overspread with ruins, would entice many to undertake a voyage to a distant country, who would feel but little inclined to travel over their native soil to view its richly cultivated lawns; and there is no doubt, but that formerly, where one person went to Egypt to be a witness of Nature's bounty to that nation, five hundred became travellers to behold Pyramids. A temple after its fall excites more eager curiosity than it did during its construction; and many who will not cross their thresholds to look at a beautiful calm in Nature, will rush to get a sight of a storm and shipwreck in a playhouse. This love of the terrific is not as has been asserted by foreigners, peculiar to the English nation: it is prevalent every where. The author observed an instance of it when in Paris, in the summer of 1822. Wishing to visit the celebrated garden of M. Bourseau, unequalled for the beauty of its plants by any city-garden in Europe, he received in answer to all enquiries for direction to the spot, the usual careless but short and decisive, *Je ne le connois pas, Monsieur*; but on asking the way to *La Mort*, every turn and alley were readily pointed out with all the bustle and officiousness of French politeness.

In this history of flowering trees and shrubs, there is nothing terrible to present to the reader; but every endeavour has been used to

“ Shew Nature's form in smiling beauty drest
And call mankind to view her and be blest.”

DELILLE.

It seems hardly possible for any mind to be so debased as to be insensible to the effects of Nature, whose vegetable charms become more endeared to us as our age and reflection increase. A more delightful cabinet of natural history can scarcely be formed, than the shrubbery affords, even when unadorned with exotic beauties. It offers matter for contemplation of the most agreeable kind which varies still as seasons revolve; and as every tree and shrub has its peculiar inhabitants, we have at the same time a collection of animal and vegetable wonders, that are sufficient to occupy all the leisure which our economical duties allow us. As years increase, a taste for most pleasures in general diminishes. Those of the court become fatiguing; the charms of the table appear to lessen; and as passion subsides and love languishes,

the gay ball and splendid opéra lose their delights; but the fondness for a garden increases, and is almost the only earthly pleasure that does increase. Let us not, then, neglect to cultivate a taste for what will form the delight and amusement of the latter period of life. Every tree we plant adds to the entertainment we prepare for future years, for ourselves, our friends and successors.

Should particular times and circumstances require a retrenchment to be made in domestic expences, it should not begin with the garden. This once neglected or laid aside cannot soon or with small cost be re-established. There are other more expensive and less profitable indulgences, which may be lessened without injury; nay, perhaps, with benefit to an establishment. By giving one entertainment less each season in London, more might be saved than by ruining a whole pleasure ground, the only means of subsistence to a few labourers, whose consequent discharge exposes them to want, and all the evil that accompany it.

The introduction of a useful or an ornamental plant into our island is justly considered as one of the most important services that a person can render his country; for it is impossible to calculate on the benefits that may be derived through his means, when the qualities of the vegetable are ascertained and its virtues known. Even what is introduced and planted merely from curiosity or ornament seems to unite us to the nations from whence it comes. It bestows on us a share of the blessings of other climates, and affords us a portion of the smiles of a more genial sun. When, therefore, we dwell on the beauty of exotic trees and shrubs, we wish to be understood as expressing our gratitude to those who have enriched our land with additional charms, and more fully displayed Nature to our eyes, and not as disregarding the plants that are indigenous to our soil. I am aware that many an Englishman has sighed under the shade of the banana, for a sight of his native banks, where the primrose sparkles through the hazel-hedge, and the violet peeps so modestly. The plants of our country recall the idea of it in the most forcible manner, wherever we meet them. They are often the first object that attract the attention of those who have been long absent from their native fields, and who on their return pour out the genuine effusions of joy on beholding the village-elm, the well known oak or the unchanged yew, whose antiquity is equal to the church it shades. We are told of a young Indian Pontaveri, (from Ota-

heite,) who in the midst of the splendour of Paris, regretting the simple beauty of his native island, sprang forward at the unexpected sight of a banana tree in the Jardin des Plantes, embraced it, while his eyes were bathed in tears, and exclaiming with a voice of joy, "Ah! tree of my country!" seemed, by a delightful illusion of sensibility, to imagine himself for a moment transported to the land which gave him birth.

We seem as it were for an instant to go back to the delights of infancy, when, on each succeeding spring, we visit the meadows covered with cowslips, which afforded us so many happy hours in childhood, as we formed balls of their blossoms. Then the playful girl, bedecked with wreaths and necklaces of daisies, led her little swain in chains formed of the milky flower stalks of the dandelion; but who at the sight of a butterfly burst the brittle bonds and scampered away, to return, perhaps, a few years after sighing, in fetters not so visible, but more binding.

There is no part of nature's works more interesting than flowers. They seem intended for the embellishment of the fair, and for the ornament of the spot where they tread. Their sweet perfumes have such influence over all our sensations, that in the midst of flowering shrubs the most acute grief generally gives way to sweetest melancholy. When our home and domestic companions are encompassed by the shrubbery, our situation approaches nearest to a terrestrial paradise. Is it not, then,

" Strange, there should be found,
 Who, self-imprisoned in their proud saloons,
 Renounce the odours of the open field,
 For the unscented fictions of the loom;
 Who, satisfied only with penciled scenes,
 Prefer, to the performance of a God,
 Th' inferior wonders of an artist's hand?
 Lovely, indeed, the mimic works of art;
 But Nature's works far lovelier."

COWPER.

The shrubbery is to a rational mind a source of inexhaustible delight and instruction, where each season brings new joy, and every morning a fresh harvest of delightful sweets. Subjects for new thoughts and contemplations prevent themselves to our view, and even the most dreary months still supply cause of admiration, and discover a world full of wonders; for,

“ E'en Winter oft has seen it gay,
 With fretted frost-work, spangled o'er,
 While pendants drooped from every spray,
 And crimson bodlets told, once more
 That spring would all its charms restore.”

It is not to old age alone, that the garden offers its placid delights. Every stage of life from the cradle to the grave is attracted by its charms. The infant is ready to spring from its nurse's arms, allured by the gay colours which flowers exhibit.

They form the most innocent toy of childhood, and the cultivation of them is generally its first labour, whilst their presentation often explains the passion of youth. The happy belle loves to entwine them in her locks, and the fond parents delight to see their child mimic their beauties with the pencil;

“ The flowers that grace their native beds,
 Awhile'put forth their blushing heads ;
 But e're the close of parting day,
 They wither, shrink, and die away ;
 But these, which mimic skill hath made,
 Nor scorched by suns, nor killed by shade,
 Shall blush with less unconstant hue,
 Which art at pleasure can renew.”

The representation of flowers is the proper style of drawing for the softer sex. In this attempt they will succeed, and by this study will afford us delight which they cannot do, “ when, o'erstepping the modesty of nature,” and the limits of their proper employment, they present us with specimens of their proficiency in the science of anatomy. A pursuit like this is often too bold, and the subjects sometimes too masculine to suit the feeling of the other sex. But flowers are the peculiar province of the fair, and the nearer their imitation approaches to nature, the more it delights us; which paintings of murders, massacres, deaths, and agony, certainly cannot. The beauty and grace that may be displayed in grouping flowers, united with the gaiety of their colours and the harmony of their tints, are well worthy the attention of those who were born to render life delightful. The neatness, nicety, and patience required in finishing flower-pieces, seem to demand the delicate hand of a female artist.

The description, by Moses, of the garden of Eden, the first abode of first created man, formed the outlines which Milton has so splendidly enriched with all the imagery of poetry. From

this have been copied the plantation, the park, and shrubbery, so justly the pride of the nation, and so properly the abode of its beauty. The Greeks devoted their terrestrial groves, as well as their celestial gardens, to the gods; but the Mahometans reserve their flowery lawns and umbrageous bowers for scenes of future bliss to mortal believers. We, however, more prudent, should wish to collect all such blessings, which bounteous nature has scattered over the globe, and in this present life form a modern garden, worthy of the Hesperides, and deserving of, though not requiring a dragon to guard it.

Some of the pleasure gardens of antiquity were created for, and devoted to, the pleasure of the softer sex. Solomon has celebrated those of Jerusalem in song, and the extraordinary gardens of Babylon appear to have been formed by Nebuchadnezzar for his Median queen, who, we are told, could not become reconciled to the flat and naked appearance of the provinces of Babylon; but frequently regretted each rising hill, and scattered forest which she had formerly delighted in, with all the charms they had presented to her youthful imagination. The king to gratify his consort, within the precincts of the city raised terraces and planted woods, in imitation of those that diversified the face of his queen's native country. Thus we are told originated those gardens, which for their singularity and comparative extent, were considered one of the wonders of the world. Their base covered four acres of land, and the height of them was so considerable that they resembled a pyramidal mountain covered by a forest. The upper area, which was about thirty feet square, was about three hundred feet distant from the river Euphrates, that washed the base of that stupendous superstructure,

This towering pleasure ground overlooked the whole city and surrounding country, as far as the eye could reach. Each terrace was covered with earth and planted with trees, so as to form a series of ascending groves: and every platform supported rural seats, fountains, and sumptuous banqueting rooms, on which all the splendour and luxury of eastern magnificence were lavished.

(To be continued.)

REVIEW.

The Rose Amateurs Guide. By T. RIVERS, JUN.

(Continued from p. 19.)

Rivers's George the Fourth is still, perhaps, one of the best of this family: it was raised from seed by myself, about twenty years ago, and contributed probably more than any thing to make me an enthusiastic rose cultivator. It is now much esteemed in France, where it is comparatively a new variety Grilony is a new and fine rose, of a purplish slate colour, and first rate form and character. Hybride blanche is a hybrid noisette blooming in clusters, and a pretty neat white rose a little tinged with rose colour. Hypocrate is a most superb variety, one of the finest of its class, and well adapted for a show rose. The King of Roses, or Saudeur panachée, is a rarity among hybrids, for it is finely striped, and as yet so few variegated roses are in this class: till this season (1857) never has it bloomed in perfection, or in fact scarcely at all, owing to its having been pruned too much: like some few others mentioned, its branches may be thinned, but scarcely at all shortened; this rose will form a fine pillar, and a standard of the largest size, as it grows with extraordinary luxuriance and vigour. Legouve is a hybrid Bourbon Rose, and quite first rate in form and colour: this may be grown for a prize or show rose. Lady Stuart, like the Duke of Devonshire, is a gem of the first water, for no rose can surpass it in beauty; the form of the flowers before expansion is spherical, and exceedingly beautiful. This rose for some years to come, must and will be a favorite. La grandeur is, perhaps, nearly as much to be admired, but for qualities quite opposite, as this is when quite open an imbricated rose, exceedingly regular and pleasing in its form. Las Casas is a hybrid Bourbon of the most robust habit, producing very large flowers, nearly the colour and shape of the common cabbage rose. Lusseldembourg is a fine spherical-shaped rose: its flowers are of a bright rosy lilac, very beautiful and distinct. Madame de Goursac is a hybrid noisette, blooming in immense clusters, and forming a very pretty standard. Monteau and Miaulis are both good dark roses; but they are certainly surpassed by Miralba, which has recently been named Chevrier: this is not a large rose, but decidedly one of the most brilliant and beautiful dark crimson roses we possess. Moyena, a bright purplish rose, has flowers very double and finely shaped; it will prove a good show rose. Ne Plus Ultra, the Palagi of two or three rose cultivators, and Called also Gloire des Hybrides, is now an established favorite. Like many others of this division it is not at all adapted for a show rose; its flowers resemble in colour the red stock and are singularly brilliant.

Princess Augusta is an English rose, a vigorous grower, and well adapted either for a pillar rose or a standard. Petit Pierre is one of those rapid and diffuse growing roses, like Belle Parabere and the King of Roses in luxuriance and vigour of growth; this is one of the largest and the most double of hybrids, and when grown as a standard, forms a magnificent tree. Pomponne bicolor is rather a small, but well shaped rose, its centre inclining to scarlet, with outer petals of fine crimson purple, a most distinct and desirable rose. Reine de Belgique rivals Lady Stuart in the fine and perfect shape of its flowers; this rose has been sold for Reine des Belges, a hybrid Provence: but, as that is of the finest white, and this of a rosy lilac, the cheat is soon detected. Riego is between the China rose and the sweet brier, a remarkable, but most pleasing union, as it has the most delicious perfume. Rosine Dupont is a very pale flesh coloured rose, with remarkable glossy foliage, and erect growth, very distinct and pretty. Saphirine is one of the largest

globular roses known, and most astonishingly robust and vigorous in its habit: in a very few years, in a strong soil, this rose would form a tree of the largest size. *Souvenir d'une Mere* is a large rose, of that delicate but bright rose-colour, always so much admired. Its flowers are not so double as some other varieties; but very large and magnificent. *Triomphe de Lafayette* is a beautiful rose, not of a pure white, but rather what is called French white, the outer petals inclined to rose colour. *Triomphe de Guerin*, a very large pale rose: much resembles *Lady Stuart*, differing only, in having the centre of its flowers of a warm rose coloured tint: this is a most beautiful and distinct variety. *Triomphe d'Angers* is perfectly unique and no rose can be more deserving of admiration. Its perfume is much like ripe fruit, and its singularly brilliant crimson flowers are often striped with white; these two last mentioned varieties are finer grown as standards than in any other mode, as their flowers are large and pendulous. *Titus* is a remarkably pretty purple rose, blooming in large clusters. Its flowers are not large but finely shaped and very distinct. *Victor Hugo*, one of the finest of the lilac coloured roses, deserves a place in every collection. It produces flowers of the very largest size, globular, and finely shaped. This is a very erect growing rose, and may be cultivated either as a standard or a dwarf. *Velours Episcopal* is a new and beautiful variety, perfectly globular of a fine crimson purple, inclining to the latter colour. *Wellington* is now an old rose: for some time thought to be the same as *Bizarre de la Chine*, but now found to be quite different in its habit and growth, though its flowers have an exact resemblance.

With but few exceptions hybrid China roses may be cultivated as standards to advantage, as their growth is luxuriant and umbrageous; some of the most robust growing varieties forming immense heads. To keep them in a healthy state, lay round their stems, on the surface of the soil, in winter, a good proportion of manure; and mind that before the blooming season commences this is added to, as they require the surface of the soil moist when in flower; they will also continue much longer in bloom if this is attended to. The great objection to this summer surface manuring, with English gardeners, is its unsightly appearance, particularly round trees on well dressed lawns; this may be soon obviated, by covering the manure with some green moss: and to keep the birds from disturbing it, which they will do after worms, place on the moss some pieces of rock, or flints, thus forming an ornamental mound. In France, roses are cultivated with much and well rewarded care; for even standards of thirty years growth have, every spring a large quantity of manure laid on the surface round their stems. This keeps the extreme heat of the sun from penetrating to their roots; and as they are abundantly watered in hot weather, it also prevents that rapid evaporation which would otherwise take place, so often rendering watering useless; this practice after all is only imitating nature, for the Dog Rose, upon which all the fine varieties are grafted, grows naturally in woods and shady places; consequently, it is impatient of exposure in hot, dry soils and situations.

For rose beds on lawns, the roses of this division are finely adapted, as they form such a mass of foliage and flowers. They may also be formed into a regular bank, rising gradually from the edge, by having dwarfs of different heights, and "petites tiges," or dwarf standards in the back ground. They bloom remarkably fine on these little stems, and as the stem is protected from the sun by the branches of the plant, it increases in thickness, much faster than when taller: tall stems owing to exposure, are apt to become bark bound and unhealthy, increasing but slowly in girth, and often requiring support. To have hybrid China roses in perfection as pillar roses, they require attention, and a superabundance of manure; but they will amply repay it, for a column twelve to twenty feet high, covered with such roses as *Brennus*, *Blairii*, *Belle Parabere*, *Coccinea superba*, *Fulgens*, *Fimbriata*, *General Lamarque*, *George the Fourth*, *King of Roses*, *Petit Pierre*, or *Triomphe d'Angers*, &c. &c., would be one of the finest garden ornaments

it is possible to conceive. To make these varieties grow with the necessary luxuriance, each plant should have a circle three or four feet in diameter, to itself, and if the soil is poor, it should be dug out two feet in depth, and filled up with rotten manure and loam. This compost must be laid considerably (say two feet) above the surface of the surrounding soil, so as to allow for settling: in shallow or wet soils, they will grow the better for being on a permanent mound. Plant a single plant in the centre of this mound, or, if you wish for a variegated pillar, plant two plants in the same hole, the one a pale colour or white, the other a dark variety: cover the surface with manure, and replenish this as soon as it is drawn in by the worms or washed in by the rains. Water with liquid manure in dry weather, and probably you will have shoots eight or ten feet in length. I scarcely know whether to recommend grafted roses on short stems for this purpose, or plants on their own roots; this will, in a great measure depend upon the soil, and perhaps, it will be as well to try both. Most roses acquire additional vigour, by being worked on the Dog Rose; but some of the robust varieties of this family grow with equal luxuriance when on their own roots; finally, for dry and sandy soils, I am inclined to recommend the latter.

THE AUTUMNAL ROSE GARDEN.

To Autumnal Roses we are much indebted for that prolonged season of interest which this "Queen of flowers," now gives. The roses of June, however splendid, soon fade; but some perpetual, or Noisette, or Bourbon roses enrich our gardens with their perfume and gay colours, till the chills of approaching winter prevent the expansion of their flowers. Among the most fragrant of these autumnal beauties are

PERPETUAL ROSES.—This division has as much variety in its origin as in its appearance: it would, indeed, be a difficult task to trace the parentage of some of the justly esteemed varieties of this family. Our old red and white monthly roses have, no doubt, contributed their share of sweet assistance; for, in many of them, the powerful fragrance of the two very old damask roses is apparent, and no perfume can be more pleasing.

In preference to giving a slight history of the family at the commencement, I shall, as I describe them, at the risk of being tedious, give the supposed origin of most of the varieties; premising, that all those termed true perpetuals have, generally, a terminal cluster of buds at the end of each shoot, whether produced in spring, summer, or autumn.

Antinous is a new rose, evidently between the French Rose and Crimson Perpetual, equalling that fine rose in form and fragrance, and surpassing it in beauty of colouring: but it partakes rather more than it ought to do of the French Rose, as it is not a true Perpetual. However, as it often puts forth its fine crimson purple flowers in September, it will be much esteemed, as we have hitherto been accustomed to roses of more sober hues in that pleasant month. Billiard, so named from a French rose amateur, is a pretty bright rose, very fragrant and double, and a True Perpetual. Belle Italienne approaches very near to the Crimson Perpetual, except that its flowers are larger, and not quite so double: this is also a True Perpetual. Bernard, or Pompon Perpetual, is a most beautiful new rose, with rather small flowers; but these are very double, and finely shaped, of a delicate carmine colour: this is a True Perpetual, and a most desirable rose.

The Crimson Perpetual, Rose du Roi, or Lee's Crimson Perpetual, deserves a few extra words of comment. This fine rose was raised from seed, in 1812, in the gardens of the palace of Saint Cloud, then under the direction of Le Comte Lelieur, and named by him Rose du Roi; owing, I suppose, to Louis the Eighteenth soon after being restored, and presenting an opportunity for the Comte to show his loyalty: it is not recorded that he changed its name during the hundred days, to Rose de l'Empereur. It is asserted, that it was raised from the Rosa Portlandica, a semi-double bright-

coloured rose, much like the rose known in this country as the Scarlet Four Seasons, or *Rosa Pæstana*; which Eustace tells us, in his Classical Tour, grows among the ruins of Pæstum, enlivening them with its brilliant autumnal flowers. This is treated as a traveller's tale by one or two of our English botanists, and the *Rosa Pæstana* is said to have been originated from seed in England:—but was that seed from Italy?

Every gentleman's garden ought to have a large bed of Crimson Perpetual Roses, to furnish bouquets during August, September, and October; their fragrance is so delightful, their colour so rich, and their form so perfect.

Couronne de Beranger is a purplish rose, very double, and of good shape; a True Perpetual. *Crispata*, or the Curled Perpetual, is one of those whimsies of nature, more curious than pretty. Each leaf is curled, and forms a ring, giving an odd appearance to the plant. De Neuilly is a hybrid Bourbon of great excellence, having all the peculiar beauty of the Bourbon Roses, with the fragrance of the Damask Rose. It is a most abundant autumnal bloomer, and ought to be extensively cultivated. De Rennes is a True Perpetual, of a first rate excellence, with large and very double flowers. *Délice d'Hiver* is a splendid rose, with large and finely-shaped flowers, of that vivid rose-colour so much admired; also a True Perpetual. *Désespoir des Amateurs*, or *Perpetuatissima*, had its origin in Italy, from whence it was ushered into France, with its high-sounding names, equally ridiculous; for, in reality, the rose, though pretty, and fragrant, is much below many in this division. It is a hybrid of uncertain origin, and totally unlike any other rose in habit, which is dwarf, and rather delicate.

Ernestine Audio is a new and fine variety, with large and very double flowers, of a bright rose-colour. I have not yet been able to decide whether or not this is a True Perpetual.

Flon, Gloire des Perpetuelles, and La Mienne, are roses of the same race, or breed, and have the same leading features differing only, and that but little, in the size of their flowers. They are all True Perpetuals, and abundant bloomers, with a peculiar and pretty habit; for their foliage has a soft appearance; and, when the plants are covered with their brilliant red flowers, no Perpetual Roses are more beautiful. *Ferox* is quite unique, and very magnificent, having larger flowers than any other in this division; but it is not a certain autumnal bloomer. The White Four Seasons has an attractive name, but it does not deserve it, as it has not the habit of the True Four Seasons Rose, producing constantly terminal flower-buds, but more like the Common White Damask, from which it is but little removed. The Grand Perpetual, or Fabert's, is a True Perpetual Rose of great excellence, requiring a rich soil and good culture to bloom in perfection. It has one great fault,—the flowers produced in July are so large that they almost invariably burst, but its autumnal flowers are so much more symmetrical. Grand et Belle, or *Monstreuse*, is a rose of immense size and beauty, and generally, a good and True Perpetual. *Henriette Boulogne* is a good rose, but rather an inconstant autumnal bloomer. This, with some others, the French distinguish as roses that “remontante rarement,” in contradistinction to the True Perpetuals, which they say, “remontante franchement.” *Jean Hachette* is a most immense rose, and very double, but not a True Perpetual. *Jenny Audio* is a new and rare rose, not remarkable for any peculiar beauty, but fragrant, and a True Perpetual. *Josephine Antoinette* is now an old variety, but a True Perpetual of great excellence. *Louis Philippe*, being introduced before Antioch, has had a large share of admiration: its immense size, under proper cultivation, and its dark purple colour, make it even yet desirable; it is also a True Perpetual. *Lodoiska* and *Madame Feburier* are superb roses, and very large and double; but they are rather Inconstant Perpetuals. *Marie Denise* is a fine robust variety: its flowers resemble those of *Lodoiska*, but more double, and the plant approaches nearer to a True Perpetual than that fine rose. *Pompon Four Seasons* is a very old rose, as its name may be found in many old catalogues; still it is rare, and quite a gem, as it blooms well in autumn, and forms a pretty little bush.

PART II.

LIST OF NEW AND RARE PLANTS,

*Notices since our last.*1. CATTLEYA PERRINII. *Mr. Perrins Catleya.* [Bot. Reg. 2.]

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

This beautiful flowering species is a native of Brazil, and bloomed for the first time in this country, in the fine collection of R. Harrison, Esq., near Liverpool, and the species is named in compliment to Mr. Perrin, the intelligent and skilful gardener to that Gentleman. Each flower is about four inches across, the petals are of a beautiful rosy lilac colour. The labellum is of a very pale bluish purple, with white and yellow; a large portion of its end of a deep mulberry crimson.

2. CYNOCHES VENTRICOSUS. *Ventricose.* [Botanist.]

ORCHIDACEÆ. GYNANDRIA MONOGYNIA.

Mr. Skinner discovered this interesting species in Guatamala, and sent it in 1822 to James Bateman, Esq., Kympersley Hall. The genus is remarkable for the flowers having a striking resemblance to a swan when the flowers are held in a reverse direction to that in which they are produced. The flowers are produced on a raceme, each having five or six. Each flower is about five inches across, of a greenish yellow colour. Cynoches, from Kuknos, a swan; and auchen, a neck; in allusion to the graceful curve of the column of the flower, which resembles a swan's neck.

3. DRIMONIA BICOLOR. *Two coloured (leaves) Woodwort* (Bot. Reg. 4.)

GESNERIACEÆ. DIDYNAMIA ANGIOSPERMIA.

The plant is a native of the West Indies, where, like the ivy in our own country, it runs up the trunks of trees, or spreads upon the ground. It requires to be grown in the hot house, and is admirably adapted for running up a pillar, or covering a wall in such a shady situation as other plants will scarcely grow in; it flourishes best when the wall is rather damp. The foliage is large, the upper side of a dark green, but at lower of a fine purple. The flowers are produced solitary, at the angles of the leaves. The flower has the form a Gloxinia, and about the size of *G. superba*, it is of a whitish yellow colour. The plant has bloomed in the collection of Mr. Knight, King's Road, Chelsea, and is sold at a low price. It is of very easy culture. *Drymonia*, from *drumonia*, woodland; referring to the situation it inhabits.

4. ECHINOCACTUS TUBIFLORUS. *Tube flower'd Spine-cactus* (Bot. Mag. 3627.)

CACTEÆ, ICOSANDRIA MONOGYNIA.

Mr. F. Mackie of the Norwich Nursery, who purchased this species among others in Mr. Hitchins's fine collection. The stem is subglobose, much depressed, and deeply cut into eleven prominent angles, having bundles of about eight blackish spines, nearly three quarters of an inch long. The flower tube is six inches long, the petals spreading at its mouth five inches, and of a delicate white.

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5 EPIDENDRUM PAPILLOSUM. *Warty fruited.* (Bot. Mag. 3631.

ORCHIDÆÆ. GYNANDRIA MONANDRIA.

Mr. Skinner discovered this interesting species, and introduced it to R. Bateman, Esq., in whose rich collection it has bloomed. The scape grows a foot long, and the flowers are produced on a terminal raceme, of from eight to ten upon each. The sepal is of a yellowish green, column the same colour but tipped with orange; lip, white with three rosy pink stripes. Each flower is near two inches across.

6. MAXILLARIA AUREO FULVA. *Golden brown.* (Bot. Mag. 3629

MAXILLARIA. ORCHIDÆÆ, GYNANDRIA MONANDRIA.

Sent to this country from Rio. The scape rises about two inches high bearing a raceme of several flowers, of a fine golden brown colour, the points of the petals being lightest. Each flower is rather more than an inch long.

7 MIMULUS ROSEO CARDINALIS. *Hodson's hybrid Mimulus.*

This fine variety was raised by Mr. Hodson, in the Botanic Garden, Bury St. Edmunds, and is intermediate between *M. cardinalis* and *M. roseus*. The habit of the plant is that of the former, but the flowers of the latter; they are however of a deeper rose colour, and twice size of the *M. roseus*. It is a very pretty variety, and well worth cultivating. *Mimulus* from mimo, a monkey; alluding to the seeds resembling the face of this animal.

8, RONDELETIA ODORATA. *Sweet scented.* (Botanist.

RUBIACÆÆ. PENTANDRIA MONOGYNIA.

A native of Cuba, found near the town of Havannah, on bush covered rocks near the sea. The plant was sent in 1830 to Messrs. Loddiges. It has since bloomed in many hot house collections of plants. The present species is shrubby growing four or five feet high. The flowers are produced in a terminal panicle, each having from twelve to twenty blossoms, which are of a rosy red colour, having an orange coloured eye. Each blossom is near half an inch across. The plant is a profuse bloomer, and continues to bloom for several months. In its native situation, the flowers are fragrant, but in this country they emit but a slight odour. The plant is well worth a place in the hot house. *Rondeletia* in compliment to G. Rondelet a physician, and Author of Works on Fishes and Algæ.

9. STANHOPEA QUADRICORNIS. *Four horned.* (Bot. Reg. 5

ORCHIDÆÆ. GYNANDRIA MONANDRIA.

S. Rucker, Esq. of Wandsworth, received this species from the Spanish Main. It is a very handsome flowering species, the flowers are much like those of *S. oculata*, but not near so much spotted. The plant has very much the appearance of *S. grandiflora*. The scape bears three or four flowers. Each blossom is about five inches across, sepals, yellow spotted with red. Labellum, at its base rosy crimson, then greenish white, terminating at the point with yellow. It is a fine flowering species well meriting a place in every collection.

10 TWEEDIA VERSICOLOR. *Changeable flowered.* (Bot. Mag. 3630-

ASCLEPIDACÆÆ. PENTANDRIA DIGYNIA.

A very beautiful flowering Asclepiadaceous plant, which was discovered by Mr. Tweedie, and is most likely a native of Tucuma. It has bloomed in the Glasnevin Botanic Garden, Dublin. The plant is herbaceous, twining. The flowers are produced in long spikes, on numerous lateral peduncles,

each peduncle having an umbel of three or four flowers. Each blossom is about an inch across. When it first expands it is of a pale blue slightly tinged with green, then purplish, and when shrivelling, turns lilac. It is a very interesting species, highly deserving a place in every collection. Tweedia in compliment to Mr. James Tweedie, an intelligent and industrious collector of plants in Buenos Ayres, Tucuman, and Brazil, who has introduced into this country many highly interesting plants,

11. ANÆCTOCHILUS SETACEUS. *Fringed flowered.* [Bot. Reg. 1016

ORCHIDACEÆ, GYNANDRIA, MONANDRIA

This newly introduced terrestrial orchideous plant, is a native of Ceylon, and Java too, from whence it was sent to the Duke of Northumberland at Sion Gardens, where it has recently bloomed. The plant has much the appearance of *Goodyera discolor*, excepting the leaves, which are streaked with golden veins, instead of white. The flower stems are similarly produced to those of *G. discolor*, but its blossoms are white and green with a small streak of rose on the labellum. *Anæctochilus*, from *anikros*, open, and *cheilos* a lip, alluding to the spreading open of the lip.

12. CHRYSOCOMA SQUAMATA. *Scaly stalked Goldylocks* [Bot. Mag. 3625

COMPOSITE. SYNGENESIA EQUALIS.

A pretty perennial fructifereous plant, a native of Van Dieman's Land, and seeds of it were sent from thence by Ronald Gun, Esq. to the Glasgow Botanic Garden. The stem is much branched, and towards the base is of a red-brown colour, and are very downy. The flowers are produced at the ends of the branches, one upon each, of a pretty yellow colour. Each flower is about an inch across. It flourishes freely in the greenhouse, blooming most of the summer, and is of easy propagation by cuttings or slips, *Chrysocoma* from *chrusos*, gold; and *kome* hair, referring to the golden heads of the flowers.

13 DODECATHEON INTEGRIFOLIUM. *Entire leaved American Cowslip.*
[Bot. Mag. 3622.

PRIMULACEÆ. PENTANDRIA MONOGYNIA.

This is a very distinct and handsome flowering species, which grows abundantly in the woody country of British North America. Mr. Drummond sent seeds of it to the Edinburgh, and Glasgow Botanic Gardens, where the plant has bloomed. The flower scape rises about nine inches high, and supports an umbel of ten or twelve drooping flowers, each blossom is near an inch long, of a rosy purple, with a yellow and white ring at the base. There are two other new species discovered one is *D. frigidum*, and the other not yet named. *Dodecatheon* so named in allusion to the number of blossoms, frequently twelve, which it bears in one head.

14 JASMINIUM GLAUCUM. *Privet-leaved Jasmine.* (Bot. Reg. 2015.

JASMINACEÆ. DIANDRIA MONOGYNIA.

A native of the Cape of Good Hope. It has been introduced into this Country some years, but it has not been merited as it deserves. The plant is of neat growth rising to the height of four or five feet, and from the flexibility of the branches, the plant is peculiarly adapted for training around a trellis of wire work, &c. It flowers very profusely, the blossoms are white, and very fragrant. Each blossom is about three quarters of an inch across. It is a hardy greenhouse plant flowering nearly all the spring and summer.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A LIST OF FLOWERING SHRUBS AND ORNAMENTAL TREES.—You would much oblige a Subscriber and Old Correspondent, by obtaining through the medium of your Work, the following information—a list of flowering shrubs and ornamental trees, best calculated “to face up” a shrubbery, with some idea of their price, where a good selection can be obtained, and particularizing such as thrive best on a chalky soil.

ON A LIST OF STOVE AND GREENHOUSE PLANTS, &c.—A subscriber wishes also that you would mention (when better things are not abundant) the names of a few stove and greenhouse plants, that, like the *Thunbergia*, do best in bog, (not peat) soil, and whether you have tried the experiment of mixing old tan with the mould given to the *Hoya carnosa*, and with what success. Perhaps, also, through the same medium you would inform him from whence that sharp white sand is procured, and at what price, in tolerable quantities, which is so necessary for the propagation of cuttings, &c.

It may be obtained at one penny per pound of most growers, or ironmongers. If a large quantity be desired it might be procured much cheaper from Dover or Brighton, and facilities for its cheap conveyance are afforded by water.—CONDUCTOR.

ON STOVE AQUATIC PLANTS.—A subscriber would be obliged if some additional remarks (for the subject has been treated of before but not much at length) were given on the cultivation of, and soil for stove aquatics.

ON TULIPS.—A constant reader of the Cabinet wishes to ask some of the experienced Tulip fancier's, whether all the flowers broke from the same breeders take the same name with the first that was broken, or are they merely reckoned as different strains of the same flower. Is it the case that they are sometimes altogether different flowers. Having this season planted some celebrated named breeders, I am anxious to be informed as to this point, perhaps Mr. Groom would have the kindness to set me right in this respect, which would be esteemed a great favour by

Lincolnshire, Jan. 1838.

AN ENTHUSIASTIC TULIP GROWER.

REMARKS.

MEETINGS TO BE HELD IN FEBRUARY IN LONDON.—Botanical Society, held in Newman street, on Thursday, Feb. 1st.

Linnæan Society, held in Soho Square on Tuesday, Feb. 6th.

Horticultural Society, held at 21, Regent Street, ditto

Metropolitan Society of Florists and Amateurs ditto

Royal Society of Horticulture, held at the Egyptian Hall, Piccadilly, on Saturday, Feb. 10th

Medico-Botanical Society held at 32, Sackville Street, on Wednesday Feb. 14th.

Botanical Society held on Thursday, Feb. 15th.

Linnæan Society, held on Tuesday, Feb. 20th.

Horticultural Society ditto

Metropolitan Society ditto

Medico-Botanical Society, held on Wednesday, Feb. 28th.

NEW PLANTS.

Bignonia grandiflora. This very fine new species we saw at Mr. Lowe's of the Clapton Nursery. The leaves have a noble appearance, each being ten inches long, and proportionably broad. We could not ascertain anything respecting its blossoms, but if they correspond with the foliage, in such an increased proportion over any other species we have seen, it will be a plant of extraordinary beauty. Mr. Lowe has not got plants for sale.

Clematis azurea grandiflora. This is an improvement upon that truly beautiful species we noticed on a former occasion, and gave a figure of it in December 1836. This new kind Mr. Lowe does not yet offer for sale.

Campanula verbenæfolia. We noticed this new and beautiful species too, at the Clapton Nursery, and we understand it is a native of Japan. It produces its flowers in spikes, which are of a very handsome light blue colour. Mr. Lowe will have plants for sale next spring.

Aralia japonica. This is a singularly pretty plant, it bears a fine foliage which is very spiny on the upper surface, and produces a striking appearance.

Ani-zanthus coccinea. This is new, and we were informed that it is very handsome, it is most probably a greenhouse plant, but we forgot to ask the question. Mr. Lowe will have plants for sale next season.

Deutzia corymbosa. Mr. Lowe has plenty of plants for sale of this new species, it had not yet bloomed at the Clapton Nursery, and we could not obtain any information respecting its flowers, but if the blossoms be as pretty as the *D. scabra*, being produced in corymbs, they will have a pretty appearance.

Clematis hederifolia. Mr. Lowe has got another addition to this justly admired genus, the foliage is singular when compared with the other kinds, we have seen. Of the flowers we could not obtain any information. This new species is not yet offered for sale.

Echium simplex. This very pretty species of Bugloss, Mr. Lowe possesses. The flowers are white and produced in spikes, having a neat appearance. It is a greenhouse species we understand.

Correa rufa. This is a new and fine greenhouse plant from Van Dieman's Land, being discovered on Mount Wellington. The flowers are said to be very handsome, viz. sulphur, orange, and green. It is a valuable acquisition for the greenhouse. Mr. Lowe will have plants for sale next season.

Clematis montana. Messrs. Rollinson of Tooting Nursery, possess this new species. It was sent into this country by Lady Amherst having been obtained from the Indian Himaylayan mountains. The flowers are white.

Gladiolus ramosus. Mr. Groom of Walworth, had fine plants in bloom of this splendid flowering species, which grow freely in the open border. The flowers are produced in large spikes, each blossom is three inches or more in length, of a fine rosy red colour, having a white stripe up each petal. It deserves a place in every flower garden.

Cytisus stipis. Mr. Lowe possesses this new species, it is a handsome greenhouse plant, producing numerous spikes of white flowers: when grown in contrast with the old yellow flowering species, it will produce a pretty effect.

Lobelia corymbosa. Mr. Young of the Epsom Nursery, possesses plants of this new and interesting species, the flowers are white, having rose coloured spots interspersed, and being produced in corymbose heads, have a pretty effect.

Altramaria acutifolia, and *A hirtella*. We saw plants of these two fine species growing against a south aspected wall, in Mr. Young's, Epsom Nursery, which under his skilful management had, in one season we understood, reached the height of nine feet, having numerous branches, and bearing a vast profusion of flowers. The appearance was most beautiful, and the plan deserves a trial in every flower garden possessing the advantages.

Primula sinensis. Mr. Henderson of Pine Apple Nursery, has two varieties of Chinese Primrose with double blossoms, one has flowers of a cream colour, the other is of a pale rosy lilac colour; both kinds are very pretty.

Ipomea Nova spec. We have had plants of a new species in our possession for some time, but it has not bloomed with us yet. It was sent us as being a new species of Rhodochiton. We observed plants of the same with Mr. Lowe, and Mr. Young, but it had not bloomed with those gentlemen, the former informed us it had recently flowered at Lady Grenvilles, Dropmore, and on enquiry we find it turns out to be a fine species of Ipomea, having flowers of a fine rose colour, and growing and blooming freely in the open air during the summer. The plant will doubtless be very ornamental to train against a wall, trellis, or other support, as wire frame work, &c.

A LIST OF ANNUAL FLOWERS.

We have recently endeavoured to obtain information from the various nurserymen and seedsmen, respecting the kinds of annuals which they now offer for sale, and we have arranged them under three divisions, viz. hardy half hardy, and tender. We hope the lists will be useful to our readers, affording facilities in making a selection for any desirable period of the blooming, colour of flowers, height of the plant, &c.

HARDY.

- Bladder Kemia, 2 ft. yellow brown, June to September
 Blue Bottle, Cyanus, mixed, one foot and a half, divers, June to Sept.
 Candytuft, three-fourths of a foot, crimson, June to August
 Normandy, one foot, deep purple, June to August
 purple, one foot, purple, June to August
 purple tree, one foot, purple, ditto
 sweet scented, one foot, white, ditto
 Carthamus, Dyers' 3 ft. orange red, June to July
 Catchfly, Lobel's mixed, one foot, red and white June to August
 painted 2 ft. red ditto
 many-flowered, one foot, red ditto
 three-nerved, one foot, red ditto
 small red, one foot, red, ditto
 Chrysanthemum, quilled, 3ft. yellow, July to September
 white 3ft, white ditto
 tricolor one foot, various ditto
 new golden, one foot, yellow ditto
 Clary purple-topped, a foot and a half purple, June and July
 red topped, a foot and a half, red, June to September
 Clintonia pulchella, half a foot, blue and yellow
 Convolvulus minor, three colours, June to September
 two-coloured various ditto
 Sicilian, blue, ditto
 Flos Adonis, one foot, scarlet, July and August
 Hawkweed, red, one foot, June to August
 white variety, one foot, ditto
 yellow, one foot ditto
 silvery, one foot, white, ditto
 Larkspur, fine dwarf, one foot, divers colours, July and August.
 double dwarf blue, one foot, ditto

Larkspur double dwarf rose, one foot	ditto
double dwarf slate, one foot	ditto
double dwarf white, one foot	ditto
double dwarf unique, 1ft. various colours	ditto
fine double tall mixed a foot and a half, divers colours,	ditto
fine double blue, foot and a half	ditto
fine double rose, a foot and a half	ditto
fine double white, a foot and a half	ditto
fine double slate, a foot and a half	ditto
Larkspur, branching, mixed, a foot and a half divers colours,	ditto
fine double rose, a foot and a half	ditto
Lavatera white, 3ft. July to September	
red, 3ft.	ditto
Love lies bleeding, 3ft.	ditto
buff or white, 3ft	ditto
Lupines, large blue, 3ft.	ditto
Dutch blue, 2ft.	ditto
large rose, 3ft.	ditto
small blue, 2ft.	ditto
straw-coloured, 2ft.	ditto
white, 1ft.	ditto
yellow, 2ft.	ditto
Mallow, China, one foot. red and white, July and August	
Marigold, Cape, one foot, white and purple, June and August	
hybrid, large Cape, one foot, white	ditto
new double, 3ft, orange red	ditto
new scented, one foot, yellow, June to September	

(To be continued)

REFERENCE TO THE EMBELLISHMENTS.

Arrana Verbena, Earl of Arran's Verbena. Mr. Tweedie sent seeds of this very fine species from Buenos Ayres to the Edinburgh and Dublin Botanic Gardens. The plant has bloomed at the latter place, from whence we received our drawing. It is said to be more shrubby than the lovely V. Tweediana, and when grown in contrast with the other species, will have a pretty effect. It has been named in compliment to the Earl of Arran.

Cosmos tenuifolius, slender leaved. This pretty flowering annual is a native of Mexico, blooming profusely when raised from seed in autumn and kept through the winter, which it can easily be done, either in a cool frame or greenhouse. It requires to be kept rather dry, the foliage being so fine is liable to damp off, and kill the plant. We have seen it do well when grown in good sized pots and kept as an ornament to the greenhouse during summer, and when good strong plants are turned out of pots early in May into the open border, such bloom well through the season. It forms a pretty contrast with *Calliopsis tinctoria*, &c. it being of a similar habit, and grows from two to two and half feet high,

Lisianthus Rusellianus, Duke of Bedford's Lisianthus. *Gentianæ Pentandria Monogynia*. A drawing of this very fine annual was sent us from Glasgow, the plant had recently bloomed in the greenhouse at the Botanic garden at that place, and from the representation given of it, it is one of the finest plants that have been lately introduced into this country. The blossoms are produced in terminal panicles, and being both large and numerous have a fine effect. It is a native of the Texas, from whence seeds were sent by the late Mr. Drummond. It is very probable that like other plants sent from the same country, that if seed be sown in autumn, and the plants be kept through the winter, then turned out into the open border in spring, that they would flourish abundantly through the summer. Or if sown early in spring and planted out in May, they might do well in the open border. The known liberality of the proprietors of the Glasgow Botanic Garden, will doubtless soon cause the plant to be offered to the public.

FLORICULTURAL CALENDAR FOR FEBRUARY.

GREENHOUSE.—This department should have good attendance during this month, similar in its operations to those directed in January, which see.—Oranges, Lemons, and Myrtles, &c. will require water frequently, they usually absorb much. The herbaceous kind of plants will require occasional waterings, but less frequent and in less quantities than the woody kinds. Succulents, as Aloes, Sedums, &c., should be watered very sparingly, and only when the soil is very dry. Air should be admitted at all times when the weather is favorable, or the plants cannot be kept in a healthy state. If any of the Orange, Lemon, or Myrtle trees, &c. have naked or irregular heads, towards the end of the month, if fine mild weather occur, begin to reclaim them to some uniformity, by shortening the branches and head shoots, by this attention they will break out new shoots upon the old wood and form a regular head; be repotted in rich compost in April, reducing the old ball of earth carefully, and replacing with new soil. After shifting it would be of great use to the plants, if the convenience of a glass case could be had, in which to make a dung bed, that the pots might be plunged in this would cause the plants to shoot vigorously, both at the roots and tops. Repot *maryllis*, &c.

ANNUALS.—Towards the end of the month, sow most of the tender kinds which require the aid of a hot bed in raising.

ANOMATHECA CRUENTA, the bulbs of should now be repotted into small pots, to prepare them for turning out into beds, so as to bloom early.

AURICULAS should now be top dressed, taking off old soil, an inch deep and re placing it with new.

BULBS, as **HYACINTHS**, &c., grown in water glasses, require to be placed in an airy and light situation. The water will require to be changed every three or four days. The flower stem may be supported by splitting a stick at the bottom into four portions, so as it will fit tight round the edge of the glass at the top

CALCEOLARIAS, seeds of, should be sown during the month, and be placed in a hot bed frame.

CARNATIONS, layers should be transplanted into large pots towards the end of the month, or planted in the open border.

CUTTINGS OF SALVIAS, FUCHSIAS, HELIOTROPES, &c., desired for planting out in borders or beds during spring or summer, should now be struck in moist heat, in order to get the plants tolerably strong by May, the season of planting out.

DAHLIAS.—Seed should be sown either in pots or upon a hot bed. Pots or boxes with seed placed in a warm room, near light, and admitting plenty of air to the plants when up, will succeed well. Dahlia roots should now be potted or be partly plunged into a little old tan in the stove, or a frame to forward them for planting out in May. As shoots push, take them off when four or five inches long, and strike them in moist heat.

HERBACEOUS PERENNIALS, BIENNIALS, &c.—May be divided about the end of the month, and planted out where required

HYDRANGEAS.—Cuttings of the end of the last years wood, that possess plump buds at their ends, should now be struck in moist heat; plant one cutting in a small pot (60's). When struck root, and the pot is full of roots, repot them into larger; such plants make singularly fine objects during summer.

MIGNIONETTE, to bloom early in boxes, or pots, or to turn out in the open borders, should now be sown.

RANUNCULUSES should be planted by the end of the month.

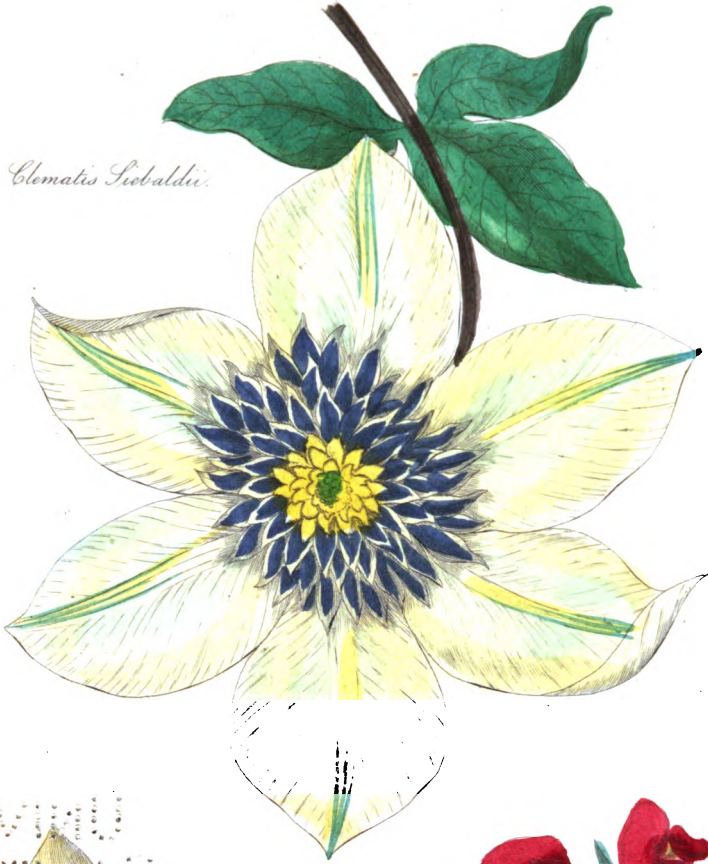
ROSE TREES, LILACS, PINKS, HYACINTHS, POLYANTHUSES, NARCISSESS, &c. should regularly be brought in for forcing.

TENDER ANNUALS.—Some of the kinds, as Cockcombs, Amaranthuses, &c. for adorning the greenhouse in summer, should be sown by the end of the month; also any tender Annuals, desired to bloom early in the open border.

TEN WEEK STOCKS, RUSSIAN AND PRUSSIAN STOCKS, &c., to bloom early, should now be sown in pots, placed in a hot bed frame, or be sown upon a slight hot bed.

UNIV. OF
CALIFORNIA

Clematis Sieboldii.



Seedling Sparaxis.



Chorizoma ovata.

Ed. Pres. Adlard sc.

THE
FLORICULTURAL CABINET,

MARCH 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE RELATIVE MERITS OF IRON AND WOOD ROOFS FOR
STOVES, GREENHOUSES, &c,

BY J. THOMSON NURSERYMAN AND LANDSCAPE GARDENER, AND HOT HOUSE
DESIGNER, REULAH SPA, CROYDON, SURREY.

With practical observations and calculations on the consumption of Fuel, breakage of Glass, &c. under both kinds of roofs made during fifteen years practice as gardener to the Duke of Northumberland at Sion House, at Kew, and elsewhere; with an account of several years observations made on heating and forcing, houses with common Flues, Steam Boilers, and with six of the most approved systems of heating by hot water; also a description of his Economic wrought iron Egg-shaped BOILER, the invention of the Writer, which has given general satisfaction for the efficacy and simplicity of its construction, and its economy of fuel and labour.

KNOWING that a great diversity of opinion exists as to what description of materials are of most avail in the construction of roofs, for stoves, greenhouses, and other buildings intended for the culture of fruit, and of tropical and other exotic plants; and having had for years the management of extensive ranges of glass at Sion House and other places where the lights and rafters were constructed both of cast iron and wood, I am induced to

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submit to your consideration the result of my practical observations relative to the two description of houses under consideration as a guide to persons who may be inclined to raise such erections, but are unacquainted with the injurious consequences of ill-constructed hothouses for horticultural purposes. Having had fifteen years practical experience with, and the management during that long period of about three thousand running feet of glass, designed for the culture of fruits and plants, enable me to speak with some decision on the subject; and there are, I doubt not, hundreds of practical gardeners, who will confirm the truth of the following observations, and agree with me in the decided conviction I entertain of the superiority of wood over iron. I feel fully justified indeed in saying that when the merits of wood, and the demerits of iron are fully ascertained, the erroneous prejudice in favour of the latter, will cease to exist in the minds of all candid men who are practically acquainted with the properties of the two materials, Every person possessing even a very small portion of knowledge of the expansion and contraction of all metallic substances, may form some idea of the inevitable expansion of a large iron roofed house in a hot summer's day, and of its unquestionable contraction during a night of severe frost, so powerful have I known the action of the sun's rays to prove in expanding the iron rafters and lights of a large roof on a hot day, that I have found the strength of too and sometimes three men required to force down the sliding lights for the admission of air.

In fully equal proportion I have witnessed the contraction of the metal during the intensity of the winter, when so large have been the apertures between the rafters and the lights as to admit the external air, in a degree sufficient to counteract entirely the power of two strong fires when the flues have been heated to the greatest excess before the temperature of the house could be raised to three degrees of Fahrenheit, the thermometer standing at 18 degrees of frost, (out of doors) this was in February 1830. Now this took place in a house of no very great dimensions compared with the wood-roofed vinery I am about to describe. The dimensions of this building were forty feet long by sixteen wide, and nine high, with a pit in the middle for the culture of pines, &c. which very much reduced the cubical number of feet of air to be rarified as compared with the wood roofed house

which was fifty feet long, fourteen wide, and fourteen high, without any pit in the middle.

Having thus stated the dimensions of the houses, I shall now give the result of the investigation and calculations made relative to fuel, attention, &c. &c. the coals for both houses were measured before being placed for use, and after the consumption of the night's fuel, the result was as follows; the iron roof with 18 degrees of frost, required the consumption of nearly six bushels of coals, and unremitting attention during the night or until 3 o'clock in the morning, while the house with the wooden roof, consumed scarcely three bushels of fuel, in order to keep it at the same degree of temperature with its iron rival, and no attention was required after 10 or 11 o'clock at night, when the fires were made up and left. Moreover, being determined to investigate thoroughly the merits of the two materials, I caused a house constructed of wood, and also one of iron, precisely the same dimensions as regards superficial feet of glass, to be perfectly repaired in the autumn of 1832, and on having them examined and repaired in the following season, I found that in the cost of repairing the iron house was nearly double the sum required to repair the wood: I do not mean to say that double the number of squares were absolutely broken, but including the broken and cracked squares, there was more than double the number destroyed, and this is attributed to the expansion of the iron during summer, and its contraction in the winter.

From these calculations it is evident wood has the advantage over iron in four very essential points, viz. the saving of fuel, glass, and labour, and in the better growth of plants and fruits, as I have invariably found plants do not thrive so well nor look so healthy in an iron as in a wood roofed house. The non-conducting power of wood, and the electrical, nay, I may say, caloric sensibilities of iron, may be the cause of this difference. Iron is infinitely more liable than wood to the sudden and injurious extremes of temperature from heat to cold. I have always found during my practice, that no matter how the iron house is situated, unless there was a slight shading on the houses during the hot days in the summer months, the leaves of the pines and other plants become very brown and frequently scalded; but whenever these shadings are not used, I would strongly recommend that a large cistern or trough of water should be placed about the houses to make up for the continued evaporation for

the deficiency of the moisture exhaled by the powerful action of the sun.

Another important circumstance is worthy the gardener's attention, namely, that iron houses should be painted internally either annually or biennially at the furthest to prevent the drip from the corroded iron injuring the foliage of the plants, for I have always found this ochreous and metallic deposit injurious to the leaves.

Since these remarks were made, I have had subsequent proof of the correctness of my former comparisons having extended my observations still further in the year 1834, and these, as you will perceive, fully confirm the accuracy of my previous calculations by working two houses at the same temperature, 55 to 60 of Fahrenheit, the result was as follows, the wood roofed house consumed only a bushel and a half of coals every night, while the iron house burnt from two bushels and three quarters; to three bushels; this last experiment was two months later in the season than when my attention was made directed to the subject before, you will yet perceive they bear the same proportions, as to fuel, &c. as the former.

The dimensions of the houses were as follows, the wood roofed, fifty feet long, fifteen feet wide, and fourteen feet high; the iron roofed fifty feet long, thirteen feet wide, and twelve feet high; the latter was a vinery and had a pit in it for the culture of pines, which very much reduced the cubic feet of air to be heated, as compared with the wood roofed house for the culture of peaches which had no pit in the centre. Notwithstanding that, however, the whole of my observations and calculations are unfavourable to iron roofs, yet I am willing to admit that for lightness and neatness of appearance in the structure, iron has, and always will have the advantage, but still I am confident that if proper attention were paid to the construction of hothouses, and to materials used in the erections the appearance of a wood roofed house would not be altogether objectionable.

For assisting persons building houses for horticultural purposes, who may have had less practical experience than myself, I shall here give a brief description of such materials and mode of construction, which I think will combine the whole of the desired objects. The first thing to be attended to is to give the roof a proper pitch or inclination, so as effectually to carry off the water

and to prevent drip in the house, which is highly injurious to plants, particularly those grown in pots.

Secondly, to form the roof in the following manner, the rafters to be of wood varying according to the length of the rafter from six to eleven inches, the section of the rafter to be wedge-shaped from three to four inches wide on the upper side where the lights rest, and half an inch wide on the bottom or under the ends and sides of the lights to be made of wood, the top from five to six inches, the sides two and a half inches, and the bottom from six to seven inches wide, and the sash bars to prevent as much as possible the obstruction of the sun's rays, should be of copper, which will give the house a light and neat appearance, without subjecting the plants to the injurious extremes of temperature, heat and cold, as the small quantity of metal in the thin sash bars which need not be more than half an inch wide, and about the same in depth, will cause but very little variation in the temperature by radiation, and little from expansion and contraction, neither would it increase the expense of the light, but little more than if made of wood, For as copper of that dimension would not weigh more than 8 ounces to the running foot I should suppose it would be bought for about eightpence per pound, therefore the expence would be but trifling when compared with the advantage, indeed the extra expense would be gained in a few years by the saving of wood in repairing the glass, as glazier's cannot hack out old putty without destroying the sash bars, and this being very frequently repeated, as (is necessary when lights are kept constantly in use) very soon lessens the substance of the sash bars, I therefore recommend all persons when erecting forcing and other houses, to have them constructed of the above materials, particularly if they are desirous of excelling in the culture of fruits and plants, as by the use of copper sash bars, they obtain all the desired objects, viz. lightness of appearance, economy of fuel, glass and labour. Moreover, any Gentleman before erecting or deciding on any particular plan or dimensions of houses for horticultural purposes, should consult his own gardener or some other practical man, acquainted with the subject, as it is impossible for any architect or surveyor to know the proper dimensions and elevations of hothouses, greenhouses, or other erections, to ensure all the intended purposes, to which they are appropriated so well as the gardener. It is true that an architect may make a very interesting external drawing which

to the eye appears perfection, without its even answering any of the desired ends, convenience of paths or walks, bark or tan beds, stages, flues, cisterns for water, ventilation and innumerable other little requisites and necessaries for a stove, greenhouse, or conservatory may be overlooked, and as every gentlemen who goes to the expence of erections of this description, expect in due time to have the benefit of his outlay in fruits, or the satisfaction of an extraordinary fine specimen, or general display of flowers, should he eventually be disappointed in not enjoying those anticipated gratifications through the bad construction of his house or houses. I regret to say it frequently occurs that the industrious, persevering, able, and anxious gardener is blamed for neglect of duty, or want of skill, not only by his employer, but by others equally unacquainted with the cause. But upon examination of the house by a competent and practical man, it turns out that the blame and ill success are attributable to the formation and aspect of the house, that various genera and species of plants requiring peculiar situations, had the gardener been consulted as to the height of the stages, depth and width of tan beds, and proper situation of the flues, or other modes of heating; all this disappointment to the employer and employed through not consulting a practical person would have been prevented. Moreover, it too frequently happens with these "*pretty*" plans prepared by non practical men, that there is an insufficiency of means provided for the proper ventilation of houses, and want of ventilation in iron curvilinear roofs, is frequently attended with the most disastrous consequences, and as a confirmation of the correctness of my observations, and of the importance of proper ventilation, plants are always liable to be scorched under an iron-roofed house.

I remember witnessing this last summer the destruction of the whole of a fine crop of grapes as well as the foliage, when early full swelled, in a Gentleman's hothouse in Kent, which was erected of cast iron about six years ago, the destruction occurred through the architect failing to allow proper ventilation, and to prevent the second house of grapes which had then suffered severely from sharing the same melancholy fate, the gardener who is admitted to be as good a practical man as any in the kingdom, caused some holes to be made in the back wall of the house, about one foot wide, and three long. where he introduced shutters hung on hinges, by which means he fortunately

succeeded in saving the second house of fruit, but not without great injury to the foliage; this misfortune and unavoidable circumstance was generally known in the neighbourhood of Seven-oaks, and observed by many practical gardeners, who can vouch for the accuracy of this statement.



Agreeable to your request I have forwarded the description of the boilers, which I trust you will receive safe. Figures 1, 2, 3, and 4, is intended for houses of small dimensions, and the large one, figure 5 for extensive houses: this, as well as the other boiler is oval-shaped, and would be sufficient to heat seven or 800 feet of four-inch pipe at a trifling expense, for during the severest part of last winter, all the houses I have heated with this plan of boiler, were kept up to their respective temperatures, without burning a bushel of coals, the only fuel used was small coke, and during the intense frost of Friday night Jan. 19th last, when the thermometer stood at a quarter past 6 o'clock in the morning, at 12 degrees below Zero, we had not the least difficulty with keeping every house, both stoves and greenhouses at their respective temperatures. I have devoted much time and attention to heating houses with hot water for several years, but more particularly last season, and this winter up to the present time, and from accurate calculations made of the number of feet of surface of glass exposed to the action of the weather, I am enabled from watching the thermometer, both out of doors and in the houses, with all extremes of weather, to calculate most correctly the number of feet of surface of pipe required to command (even with 42 degrees of frost) any given degree of heat required for stoves, greenhouses, and other buildings, and the want of this practical knowledge, and attention to this highly important part, (the radiating surface) has been the cause of so many complaints against the system of heating by the circumvolution of hot water, all of which would have been prevented had the hot water fixer devoted a few nights during the severe frosty weather to this indispensably necessary calculations, but then his remarks should not have rested on the observations made during a calm night of severe frost. I have found by sitting up to watch the thermometer for whole nights together, that a 16 degrees of frost, with a strong wind, is more trying to a house

than the severe frost on last Friday, Jan, 19th, when the thermometer fell to 10 degrees below Zero, or 42 degrees of frost.

I am induced to send you this account of the degrees of frost at Norwood, (which may be relied on), as I sat up the whole of the night to make my observations and calculations, thinking it might be interesting to some of your numerous readers

Figure 1, is the elevation of the front ; Figure 2, a transverse

fig. 1.

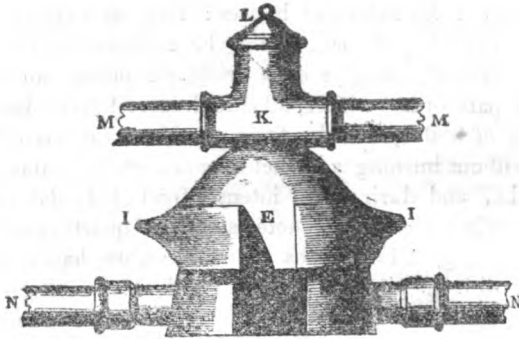
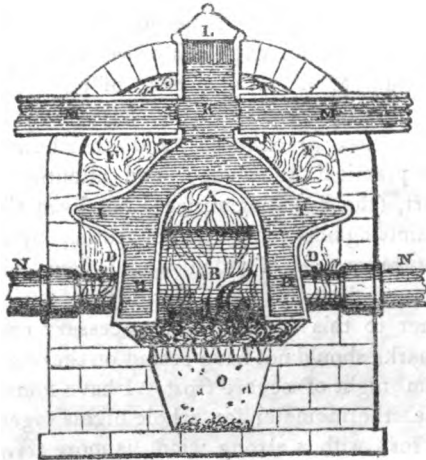


Fig. 2



section across the boiler and furnace ; Figure 3, a longitudinal section through the centre ; Figure 4, a plan of the furnace and lower part of the boiler, the same letters refer to similar parts

Fig. 3.

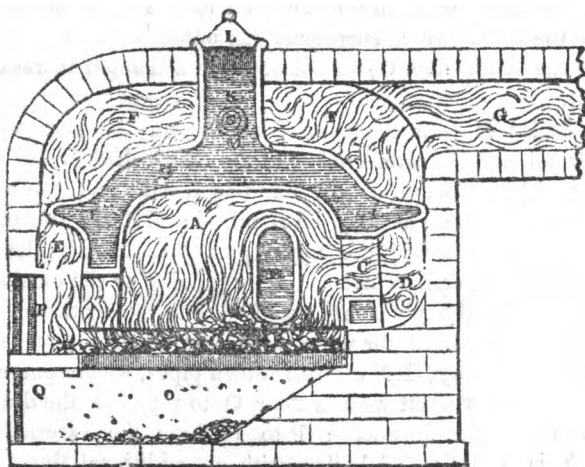
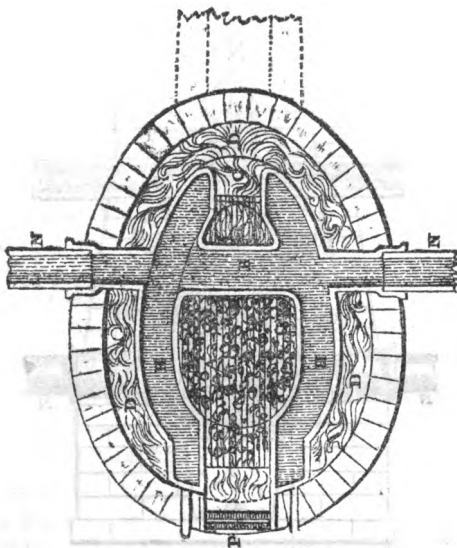


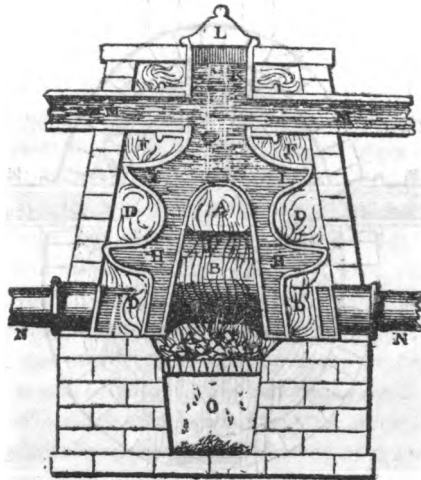
Fig. 4.



in each figure : A is the furnace in which the fuel is placed, entirely surrounded (except the under side) with the boiler ; B is the check draft over which the heat, flame, and smoke passes to a small aperture C in the back of the boiler communicating with the flues D, surrounding the lower part which unite and pass through an opening E in the flange on each side of the furnace door to the flue F which surrounds the upper part, and terminates at the brick flue G, furnished with a damper to regulate the draft.

The boiler H is in the form of an egg, on the plan with a chamber all round connected with the check draft B and surrounded with the flange or cover to flue I, with an iron cap L either fixed or loose as may be required ; MM are two outlet pipes communicating with the upper part of the boiler, through which the hot water circulates. After passing to the outside of the brick work, the pipes are ramified into two or three branches, if it is required, for warming different houses or separate parts of the building ; NN are two return pipes, which enter the boiler ; O is an ash pit with a door Q to regulate the draft of the furnace as double doors ; P to exclude the external air. Figure 5 is a section of boiler, with an additional flue surrounding the lower part.

No 5.



I forgot to mention in my paper when describing the furnace door used to my apparatus, that between the door and the fire there is a piece of iron one foot three inches by one foot wide, which acts as a carbonizing plate, and when the fire begins to burn strong, so as to heat the iron hot, nearly the whole of the smoke is consumed. I will thank you to notice this omission and please let the whole of these observations and instructions as well as those sent before, appear in full if possible, as they are all very useful hints to gentlemen and gardeners.

W. THOMSON.

(To be continued,)

ARTICLE II.

CONVERSATION BETWEEN BLOOMWELL AND WOULDKNOW.

BY BIZARRE.

(Continued from Vol. V. page 270.)

WOULDKNOW. I think seed is sometimes very scarce.

BLOOMWELL. Some years are unfavorable to the sowing of seed, and I am afraid the present one will be among the number, the flowers being late in bloom. As soon as the petals wither, they should be carefully extracted, and most part of the calyx cut away, so that there may be no place to hold the wet, which soon spoils the seed. You should also be careful to protect the pods from earwigs, which are as destructive to the seed as they are to the flowers. A piece of wool wrapped round the stalk so as to prevent all communication with the pod, is the most effectual method of preventing their depredations, as they do not often get through the wool, their horns frequently getting entangled in it, they cannot proceed. When the seed is ripe, the pods should be dried, and then put into paper boxes till spring. Then shake the seeds out of the husks and sow it about the second week in April, in pots or boxes. When the plants are about an inch and a half or two inches high, transplant them into a bed of good light soil about six inches apart all ways; when planted closer they are often drawn up without layers, and so you have sometimes the mortification of loosing a good seedling as soon as you have obtained it. The next summer when they begin to show bloom, pull up all single and worthless ones, to give more air and room to the others, giving all such as

have good properties another year's trial, as sometimes they will be much better the second year than they are the first.

WOULDKNOW. I had a handsome seedling picotee last year which I layered very carefully, but alas in the wet weather the worms broke off and destroyed every sprig, so that I entirely lost it.

BLOOMWELL. I do not wonder at it, I have been served so myself, but lately I have taken care to prevent the mischief.

WOULDKNOW. Pray, how may it be prevented?

BLOOMWELL. When you see a seedling worth keeping, make ready a pot of sufficient size, according to the growth of your plant, take it up with as much earth attached as you can place it in the pot, and fill it up with compost, water well, tie up the flower stems to a stick, and layer the shoots, keep it moderately moist, so that it does not flag, and in the course of a week it will be established.

I have shifted many seedlings in this manner when in bloom and never lost one. The layers take root quite as well as those that have been in pots all the season.

WOULDKNOW. When do you begin to layer your carnations, Mr. Bloomwell?

BLOOMWELL. Any time when they are fit to layer, I have layered them at all times, I believe, between Mayday and Martinmas, and have had rooted plants from it, but I by no means recommend late layering, except when you cannot get them ready to lay in the early part of the season: some will say that early layers are apt to spindle, but I do not think that their early layering is the cause of it, they would have spindled just the same if they had not been layered; the earliest layers get the best roots, and are most likely to stand the winter, therefore I always begin to lay as soon as the grass is ready, and continue as long as I have any to layer.

WOULDKNOW. What do you consider the best method of layering?

BLOOMWELL. Begin your incision about a quarter of an inch below the second joint, and continue it close up to, but not into the joint, but of the lip close to the joint from the outer ring of which the roots will protrude, when you separate the layer from the mother plant, cut the other side close to the joint also, and the young plant will be as sound as a piping when the joint is cut through in the usual way, the pith often gets damaged, and

causes the plant to perish. I know some florists make a rule of leaving a piece of stalk to the layer, thereby (as they say) to increase their chance of more roots, but in my opinion they only increase the chances of decay. I received some layers last season from a florist in Lancashire, which were cut through the joint and half way to the next, the result was, several of them perished before blooming; perhaps some people may think it their interest that the plants they sell, should not live; but for my part I am determined not to buy twice of any person who layers in that manner. When the layers are cut in the manner I have described, close to the joint, there is not half the risk of the wet destroying them as it frequently does; those layered in the common way by lodging in the pith, which soon rots and contaminates the whole plant.

WOULDKNOW. The shoots sometimes grow so high up the stalk that they cannot be got down to the surface of the pot, how do you contrive to manage them?

BLOOMWELL. The simplest way is to place another pot filled with soil at a proper distance, and gently bend down the stalk to it, securing it with a strong hook, and then lay your shoots. Another method said to be practised in France, is to take a small piece of lead paper, such as tea is commonly wrapped in, and after you have cut your shoot in the proper manner, wrap the paper close round the stalk at the bottom, letting the top remain wide open, in the form of an inverted cone, the joint, being about the middle of the paper, fill it with fine compost, and water it to make it settle round the joint, it must also be watered occasionally till struck, make the paper fast to the stick which supports your plant.

WOULDKNOW. Which is the best time to take off the layers?

BLOOMWELL. The general part of them should be potted off the beginning of October, such as are slow or late strikers, may be perhaps as well left on till spring. When well rooted however, they may be taken off at any time during winter, provided it be open weather, placing the plants thus removed under a frame or hand-glass, or what is better, in a carnation house till spring. In planting out your layers in the spring, do not be too much in a hurry with them, but wait till the weather appears settled.

WOULDKNOW, I am extremely obliged to you for your information, and hope to visit you again.

BLOOMWELL. I shall be happy to see you or any other florist

at any time for the company of florists always delights me ; you know the old adage,

Birds of a feather,
Will flock together !

Having brought this conversation to an end, I return my best thanks to the Conductor for his readiness to insert it, and should you or your readers approve, perhaps I may give you, at no distant period, another conversation on Floral Affairs.

BIZARRE.

(We shall be much obliged if our respected correspondent will favour us with the article referred to.—CONDUCTOR.)

ARTICLE. III.

REMARKS ON THE SHRUBBERY.

BY REV. HENRY HILL, A. M.

(Continued from page 56.)

THIS edifice was constructed by immense stone beams laid on pillars of stone, the first flat being a square of about four hundred feet each way; these flats or stories lessening in surface as they increased in height. The stones were first covered with reeds, cemented together with bitumen. On this covering was laid a double row of bricks united by cement, which were then also covered by sheets of lead, in order to prevent the moisture from penetrating downwards; and these sheets lastly sustained a depth of earth sufficient for the plantation of trees and shrubs. We are told that this elevated shrubbery was watered by fountains, the water of which we presume to have been conveyed into it by manual labour, as skill in hydraulics appears to be an acquirement of later times; and perhaps the ancient Egyptians from their peculiar situation and circumstances, were the only people who attended at that period to this science.

We have noticed these gardens of Babylon, to show that pleasure grounds have existed from the earliest ages in civilized countries. As the arts have flourished or been neglected so have gardens flourished or decayed.

The Romans would naturally attach to their villas in this country a similar style of garden to that which they had in Italy. But this would be lost in baronial times, when nothing was secure outside the castle walls. However, Gardens of considerable ex-

tent were joined to the convents and monasteries of England, and we find that the cultivation of flowers and shrubs was attended to by most of the religious recluses of those establishments, as well as that of fruits, pot herbs, and medicinal plants.

The citizens of London had gardens to their villas as early as the time of Henry II., which Fitz-Stephen tells us were, "large, beautiful, and planted with trees." In Cerceau's Architecture, which appeared in the reign of Henry III. every ground-plot was laid out with plans of labyrinths darterres.

The royal gardens of Nonsuch in Surrey were formed in the time of Henry VIII. The privy gardens of that palace were planted with flowering shrubs and fruit trees, and ornamented with basins of marble fountains, and pyramids. The gardens of Hampton court were also planted about the same period, by Cardinal Wolsey; and from that time to the present. the taste for ornamental trees and shrubs have continued to increase.

Charles II. returned from the continent with a taste completely French; Evelyn also, from his travels through France and Italy, during the commonwealth, imbibed similar ideas. Thus our plantations at that time consisted entirely of long, dull avenues, and our pleasure gardens of clipped hedges, walks laid out upon geometrical principles, and evergreen trees shorn into fanciful and ridiculous figures. Le Notre who planned the celebrated gardens of Versailles, came over at this time to England, by desire of Charles, to plant the parks of Greenwich and St. James's.

Early in the eighteenth century, the formal and heavy style of gardening which had for some time prevailed, was changed by the united efforts of the English poets and painters of the day. By their pure taste and united efforts, they give birth to that classical style of planting which has since been so much admired and imitated throughout the most refined parts of Europe.

Whilst Addison was forming a rural garden at his retirement at Bilton, near Rugby, Pope was employed in laying out a picturesque plantation at Twickenham. At the same time, with their pens they engaged in open war against the right angles and disfiguring shears of the gardeners of their day, against whom they levelled some of the keenest shafts of their ridicule. These geniuses were seconded by Kent, who as a painter and architect, was adapted to embody their imaginations. In his capacity of landscape planter, he laid out the grounds of Claremont and Esher, about the year 1730; and as he painted the hall at Stowe,

it is probable that he assisted Lord Cobham in the grouping of his plantations also, which had been commenced on the modern land about the time Pope was forming the gardens at Twickenham.

We are informed by ancient historians that the Persians of old had parks, which contained animals of the chase; and the Romans had similar enclosures for the same purpose. It is generally supposed, that the park at Blenheim is the site of grounds that were once used by that people for hunting. It is also conjectured to be the same spot which formed the park of Henry I. who we are told had a park at Woodstock

The word "park" is originally Celtic, and like the French word *parc*, signifies an enclosed spot for the confinement of animals. "No man can now," says Wood, "erect a park without a licence under the broad seal; for the common law does not encourage matters of pleasure, which bring no profit to the Commonwealth. But there may be a park in reputation, erected without lawful warrant: and the owner of such park may bring his action against persons killing his deer." It is considered in law to be no longer a park when all the deer are destroyed, for a park must consist of vert, venison, and enclosure; and to pull down park walls or pales, subjects the offender to the same punishment as killing deer.

It will be necessary now to make some observations on the formation and planting of shrubberies, though under each article we shall state what trees assimilate best in neighbourhood. The style of this sort of garden must depend so much on the extent, situation, and character of the ground, that it would be absurd to offer more than general remarks.

The plantation should be carefully made to suite the building it is to surround. As the villa and ornamental cottage form the largest portion at present of edifices that claim a pleasure-garden, we shall confine our observations to the grounds attached to these dwellings. As such houses are generally built on situations too flat to admit of much variety, the first study should be to find how and where we can break the level by throwing up elevations, so as to answer the double purpose of obscuring private walks, and screening other parts from the wind.

(To be continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

*Noticed since our last.*1. CALESTEMON MICRIOSTACHYUM. *Small spiked.* (Bot. Reg. 7.

MYRTACEÆ. ICOSANDRIA MONOGYNIA.

This very pretty flowering plant, is a native of New Holland, and has bloomed in the collection of William Harrison, Esq. Chesunt, Herts, for the first time in Europe. During the last year it was exhibited at one of the meetings of the London Horticultural Society, and a medal was awarded for its exhibition. The foliage of the plant bears a resemblance to the *Diosma uniflora*. The flowers are produced similar to the *Melaleucas*, having long stamens, and in neat spikes. They are of a very vivid crimson colour, and have a most brilliant appearance. The plant ought to be in every greenhouse and conservatory.

We understand that it is easily increased by cuttings. *Calistemon* from *Kalos*, beautiful; and *stemon*, stamen; referring to the brilliant colour of the stamens.

2. CARICA CITRIFORMIS. *Small Citron fruited Papau.*

CARICEA, MONÆCIA DECANDRIA.

The plant is a native of Guiana, and it has fruited in the hot house collection of Charles Horsfall, Esqr. Liverpool. The flowers are small, of a yellowish white. The fruit is about two inches long, and an inch and a half across, of a very deep orange colour, which have a beautiful appearance, hanging so gracefully pendant on the branches. The plant grows very vigorously, so as to bear fruit the first season after the seed is sown. It grows to the height of five or six feet.

3. CHOROZEMA CORDATUM, *Mr. Mangles's Chorozeema,* (Bot. Reg. 10.

PAPILIONACEÆ. DECANDRIA MONOGYNIA.

This very neat and handsome flowering species, is a native of the Swan river colony, and has been raised in the Garden of R. Mangles, Esqr. Sunning hill, Berkshire, where it has bloomed. The plant is a very distinct species, both in its foliage and flowers. A leaf is near two inches long, by one broad. The flowers are of a fine orange scarlet, the vexillum having a yellow base streaked with dark; the keel is of a crimson purple colour. The plant is a very free grower, Mr. Mangles's being at one year old near a yard high. It is a profuse bloomer, and ought to be in every collection of greenhouse and conservatory plants. From the well known liberality of the above gentlemen, cuttings will be extensively distributed, and as it propagates freely, plants will soon be in the Nursery collections. *Chorozeema* from *choros*, dance; and *zema*, drink.

4. CIRRHOPETALUM THOUARSII. *Thouar's Cirrhopetalum.*

(Bot. Reg. 11.

ORCHIDACEÆA, GYNANDRIA MONANDRIA.

Mr. Cuming sent this very interesting orchideous plant from Manilla, to Messrs. Lodiges's, where it bloomed last season. The plant produces nu-
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merous flower stems, each rising to a foot high, and terminating in a dense spreading raceme of ten or a dozen flowers. The sepals are strap shaped, about an inch and a half long, of an orange and yellow colour. The petals are very small, pale yellow spotted with red, and the edges bordered with bristly pointed teeth, and the end terminating in an awl shaped point.

The plant merits a place in every collection of Stove Orchidææ. Cirrhopetalum, from kirrhos, tawny; and petalon, a petal; referring to the general colour of the flowers.

5. EPIDENDRUM FLORIBUNDUM. *Many flowered.* (Bot. Mag. 3637)

ORCHIDACEÆ, GYNANDRIA, MONANDRIA.

A native of Mexico, from whence it was sent to Messrs. Lodiges, in whose collection it has bloomed. The flower stem rises about a foot high terminating in a panicle of numerous flowers, produced on several spreading branches. The flowers are about an inch across, both sepals and petals are very narrow. The petals are white, column green at the base, white above. Lip, white; with a carved line of red dots. The plant continues a long time in flower, and being produced numerous have a very interesting appearance, Epidendrum, from epi, upon; and dendron, a tree; referring to its native habitation.

6. EUPHORBIA VENETA. *Venetian Euphorbia,* (Bot. Reg. 6.

EUPHORBIACEÆ, MONECIA, MONANDRIA.

A native of the country around Venice, and has bloomed in the garden of the Hon. W. F. Strangeways, at Abbotsbury, Dorsetshire. It is a robust growing plant, what is usually denominated half shrubby. It is evergreen, and its trailing habit renders it suitable for a rock work, very well combining with sedums and similar plants. The flowers are of a yellowish green, produced numerous in a dense spike, and continue in bloom during a great part of summer. Euphorbia, so called after Euphorbus, Physician to Juba, King of Mauritania.

7. LOAZA LATERITA. *Red flowered.* (Bot. Mag. 3632)

LOACEÆ, POLYADELPHIA POLYANDRIA.

Mr. Tweedie discovered this very interesting species in Tucuman, and seeds of it were sent to the Glasgow Botanic Garden; where it has bloomed both in the stove, and during summer against a good aspected wall, in the open air, in the latter situation it produced fruit also. It is a most beautiful annual plant, deserving a situation in every greenhouse, or other favourable situation.

The plant is a climber rough and stinging, the stems climb to the length of twenty feet or upwards, producing numerous flowers of a bright orange scarlet colour. Each blossom is near three inches across.

8. MAMILLARIA LEHMANNII. *Lehmans.* (Bot. Mag. 5634.

CACTEÆ, ICOSANDRIA MONOGYNIA.

This singular species has bloomed in the fine collection of Messrs. Mackie, Norwich; it is a native of Mexico. The flowers are of a pale straw colour, about two inches across.

9. PASSIFLORA TUCUMANENSIS. *Large stipulated passion flower.*

This species was also discovered by Mr. Tweedie, at St. Jago de Estero, and sent by him to the Glasgow Garden. Where in the stove, it bloomed in July 1837. The flowers are white, about two inches across. The plant grows very rapidly, and blooms most profusely.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON ROSE DU ROI, &c. I wrote to you some time since on destroying the wireworm, and from your so obligingly inserting the few observations, I made on the subject, I am induced to send you the following remarks, and shall feel obliged to any of your correspondents who will favor me with an answer to my question. Why have my standard rose trees (which bloomed luxuriantly last year), not put forth one blossom this autumn. They are of the 'Rose du Roi' species and very healthy: Should I have pinched off the buds in May and June? Perhaps some one who is in the habit of growing these kind of roses will favor me with an answer, likewise a description of the best soil for them and the Yellow Noisette.

ON A FUNGUS RISING AMONG TENDER ANNUALS, &c. I was very much troubled last season in raising my tender annuals, by a species fungus forcing itself up among the young seedlings in my hot bed. If some reader of the Cabinet will tell me how to guard against this evil another time. I shall be much obliged by an early answer.

CALCEOLARIA.

REMARKS.

NEW PLANTS.---*Aconitum Chinense*. A very fine flowering species sent by Dr. Von Siebold from Japan, we saw it in bloom at Mr. Young's, Epsom Nursery. It is quite a hardy herbaceous perennial. The flower stems rise four feet high, each having numerous lateral spikes of fine blue flowers. Each flower is about two inches across.

Lilium lancifolium album. Mr. Young also possesses this new kind sent by Dr. V. Siebold from Japan. The flowers are white, very handsome. Also the two following kinds from the same source, viz.

Lilium roseum, and *L. punctatum*, both handsome flowering species. To persons partial to this beautiful tribe of plants, the above will be an interesting addition.

Scabiosa grandiflora, var. A new and very fine flowering variety is in the possession of Mr. Groom, Walworth, who will soon have plants for sale. It is a very fine ornament to the flower border.

Epidemium violaceum. Mr. Groom possesses this new, pretty and singular flowering species, it will require to be grown in the greenhouse, and will merit a place in every one.

Galphemia splendens. This very neat and pretty flowering species, we saw in bloom in the greenhouse at Mr. Groom's. The plant grows three feet high, or upwards, producing numerous lateral branches, which are adorned with pretty golden yellow flowers, each blossom about an inch across.

Daviesia verdata. Mr. Groom also possesses this new and fine species, meriting a place in every greenhouse. Its beautiful blossoms are strikingly handsome the most of the genus are remarkably neat and interesting. Mr. Groom will have a stock of this new species for sale in spring.

Euonymus japonica. A very strikingly pretty greenhouse plant, the plant grows to a very neat shrub, having fine foliage, the leaves are marked and freckled with white and gold and have a green neat edging. The plant gives a very neat relief in a collection of plants; Mr. Groom cultivates this new species.

Hepatica violacea. This new and very fine flowering species, is in the possession of Mr. Low, of Clapton Nursery, who will have plants for sale the coming season. We understood it would require to be grown in the greenhouse or cool frame during winter.

Campanula verbenafolia. We saw this new and pretty flowering species in bloom at Mr. Low's, its spikes of light blue flowers, making a beautiful show. It is a native of Japan, and most likely will require to be grown in the greenhouse or pit frame. The plant merits a place in every collection; plants will be for sale in spring.

Echium simplex. This new and pretty species we saw at Mr. Low's, the flowers are white, produced in spikes, and have an interesting appearance; like the rest of the genus it is very showy. It deserves a place in every collection of greenhouse plants.

Phlebonopsis amabile. This very singularly beautiful flowering orchideous plant, has bloomed in the fine collection of Messrs. Rollinsons, Tooting, who received it a few months back from Minalla. The flowers have the appearance of a large moth, they are beautifully streaked and veined, and are produced numerously. It is a very valuable addition to our Orchideous Epiphytes.

Stevia salicifolia. A very pretty new flowering species, which we saw at Mr. Low's; the flower spikes rise about a foot high, they are white. The plant requires to be kept in a frame during winter.

Corea speciosa grandiflora. This is a very fine flowering kind, much superior to the original handsome species; it deserves a place in every greenhouse or conservatory. Its fine scarlet green and yellow blossoms, hanging so gracefully in profusion, have a very ornamental appearance, and render it a very desirable plant; Messrs. Loddiges's, of Hackney Nursery, possesses this fine variety,

OF GREENHOUSE AND HALF HARDY PLANTS WHICH WILL FLOURISH AND BLOOM FREELY DURING THE SUMMER MONTHS, IF PLANTED OUT IN THE OPEN BORDER.

Within a few years the brilliancy of modern ornamental gardening has been most surprisingly increased by the practice of planting out in the open borders many of the most splendid and free flowering greenhouse plants. By this means a very considerable number of show exotics are caused to blossom much more profusely than under any other mode of cultivation.

Some of the kinds of plants are much more suited for growing in masses. "as a bed of each," than others are; such we have marked with a star, and those which will thrive best in the air and smoke of towns, with two stars.

The kind of soil each particular plant will flourish and bloom the best in, is annexed to them. We have found, during twenty years practice in this department of Floriculture, that some plants when turned out of pots into the

open borders, even in common soil, have a tendency to produce a luxuriant foliage, and but very few blossoms; each luxuriance, however, is easily prevented, by using a mixture of sand or peat with common soil.

In the list of plants here given, we have only inserted such as keep in bloom for several successive months; there are many other beautiful plants, as *Gladioluses*, *Ixias*, *Watsonias*, and new *Azaleas*, *Rhododendrons*, &c., that will flourish and blossom equally well; but their blooming season being so short and at so early a season of the spring, as to be liable to injury, we have on that account omitted them. *Pelargoniums* are also omitted; the number of varieties, species, and colours being so extensive, we could not possibly particularize them within our limits. All the kinds, however, will flower freely in the open borders. Those of a luxuriant habit should be planted in sandy loam and peat, to prevent a mass of strong roots and foliage, and cause the production of flowering shoots; and others of a more delicate habit, should be grown in rich vegetable mould, from decayed leaves, &c. and peat soil.

The period for turning out plants into the open borders, varies with the situation of climate, season, &c.: but it is better to be a week too late than run the risk of early destruction. We purpose giving some directions before the Autumn, relative to the best means of keeping up a stock of plants for the open borders.

BLUE FLOWERS.

- Agathæa cœlestis*, 1ft. 6in., May, November, peat and loam.
- Ditto *limifolia*, 2ft., April, October, do.
- ** *Anagallis Monelli*, 1ft., May, October, do.
- ** Ditto *Webbiana*, 1ft., do. do. do.
- ** Ditto *Phillipsii*, 2ft., do. do. do.
- * *Cœlestina ageratoidea*, 1ft., June, October, rich mould.
- * Ditto *cœrulea*, 1ft., June, September, do.
- Commelina cyanea*, 1ft., July, September, do.
- Heliophilla linearifolia*, 1ft., June, September, sandy peat.
- ** *Heliotropium corymbosum*, 2ft., May, October, rich mould.
- ** *Hydrangea hortensis*, 1ft. to 2ft., June, October, peat and pure loam.
- * *Lobelia begoniæfolia*, 6in., June, September, do.
- ** Ditto *Erinus*, 6in. June, September, sandy peat.
- * Ditto *senecioides*, 1ft., July, September, rich mould.
- Ditto *cœrulea*, 2ft., June, October, rich loam.
- Ditto *cœlestina*, 2ft., do. do. do.
- Salvia africanus*, 2ft., May, September, rich mould.
- * Ditto *angustifolius*, 2ft., June, September, rich mould.
- * Ditto *chamædryoides*, 1ft. 6in., June, October, rich mould.
- Sollya heterophilla*, 1ft., July, October, do.
- * *Streptocarpus Rexii*, 6in., April, November. loam and peat.
- * *Tweedia cœrulea*, 2ft., July, September, rich mould.
- * *Witsenia corymbosum*, 1ft., May, October, sandy peat.

CRIMSON.

- Alstræmeria psittacina*, 4ft., August, October, loam and peat.
- Azalea indica*, var. *ignescens*, 2ft., May, September,
- Amaryllis formosissima*, 1ft., May, September, rich mould.
- Ditto *Forbesii*, 1ft. 6in., July, September, do.
- Ditto do. *purpurea*, 1ft. 6in., July, September, do.
- ** *Calceolaria Wheelerii*, 1ft., May, October, peat and loam.
- Cuphea Llavea*, 1ft. 6in., June, August, do.
- Dianthus aggregatus*, 1ft., June, September, rich loam.
- Phlox Drummondii*, 2½ft., June, October, rich loam.

VERY DARK.

- ** *Calceolarias* numerous dark varieties, 2ft. May, October, rich mould.
- Lobelia mucronata*, 2ft. to 3ft., July, September, rich mould and peat.

- ** *Lotus Jacobsæus*, 2ft., May, November, rich mould.
Senecio elegans, 1ft., July, November, do.

GOLDEN.

- Galaxia grandiflora*, 6in., May, September, sandy peat.
Hunnemannia fumarizæfolia, 2ft. June, September, rich mould.
 * *Mesembryanthemum aureum*, 1ft., May, October, do. and lime rubbish.

ORANGE.

- ** *Anagallis grandiflora*, 2ft., June, October, rich mould.
 ** *Calceolaria Fothergilla*, 6in., May, October, rich mould and peat
Homeria collina, 2ft., May, August, sandy peat.
 * *Lechenaultia formosa*, 1ft., June, September, peat and loam,
 * *Ditto oblata*, 1ft., June, September, do,
 ** *Lychnis grandiflora*, 1ft. 6in., June, October, rich mould.
 * *Mehernia pulchella*, 2ft., July September, loam and peat.
 * *Mesembryanthemum aurantiacum*, 1ft. 6in., June, September, rich loam
 and lime rubbish.
 * *Ditto bicolorum*, 1ft. 6in., May, September, rich loam and lime rubbish.
 ** *Mimulus glutinosus*, 2ft., May, October, rich mould.

PINK.

- Alstræmeria pallida*, 2ft., August, October, loam and peat.
Chironia linoides, 2ft., June, September, sandy peat.
 * *Crowea saligna*, 2ft., June, October, sandy peat and loam.
 * *Erodium incarnatum*, 6in., May, August, rich mould.
 * *Linum suffruticosum*, 1ft., August, October, peat and loam.
 * *Mesembryanthemum floribunda*, 6in., May, October, sandy loam.
 * *Primula prænitens (sinensis)* 1ft., May, October, sandy loam.
Stevia lucida, 2ft., June, October, peat and loam.
Ditto salicifolia, 1ft. 6in., July, September, peat and loam.
 * *Tephrosia grandiflora*, 3ft., May, October, do.
Verbene Drummondii, 2ft., June, October, do.

PURPLE.

- ** *Calceolaria archnoidea*, 1ft., June, October, loam and peat.
 ** *Ditto purpurea*, do. do. do. do.
 * *Ditto insignis*, 1ft. 6in., do. do. sandy peat.
 * *Chironia frutescens*, 1ft. 6in., do. do. peat and loam.
 ** *Cineraria cruenta*, 2ft., May, July, do.
 * *Ditto lanata*, 2ft., May, September, do.
 ** *Lobelia speciosa*, 2ft., May, October, do.
 ** *Ditto unidentata*, 6in. May, October, do.
 Ditto strepurpurea, 2ft., do. do. do.
 * *Loddigesia oxaladifolia* 1ft., May, October, do.

(TO BE CONTINUED.)

FLORICULTURAL CALENDER FOR MARCH.

ANEMONIES—should now be planted, as early in the month as can be done.

AMARYLLIS'S—and other litiaceous bulbous plants which have been kept dormant, may now be repotted, and put into an increased temperature.

ANNUALS, HARDY,—if the soil be moderately dry, some of the most hardy kinds to bloom early in the summer, may be sown in warm parts of the

country, or situations well protected, early in the month, but in cold places not until the end of the month; for if the seeds of many sorts have begun to vegetate, and frost operate upon them, they are often destroyed. The best method of sowing the small seeds in patches is, to have a quantity of finely sifted soil; spread a portion where desired, after scattering the seeds, sprinkle a little more soil over them, and then press it closely upon the seeds, which will assist them in vegetating properly.

ANNUALS, TENDER—Such as have been sown and may be up, should have all possible air given to prevent their being drawn up weakly. In watering those in pots they must not be watered over the tops, or many of the sorts will be rotted by it. The best method is to flood over the surface of each pot, always using water that is new milk warm. Those annuals sown in frames must be watered (when requisite) with a very fine syringe, or pan rose to sprinkle with; but the best plan is to take advantage of gentle rains. For any seeds yet requiring to be sown use fine soil pressed to the seeds, and when convenient, place the pots (if used) in moist heat till the plants are up.

AURICULAS.—Those requiring top dressing should be done immediately, by taking off about two inches deep of the top soil, and replace it with some very rich, more than one-half of it should be rotten cow dung two years old, and the rest loam and sand. Immediately after this dressing, let the soil be well settled by a free watering. By the end of the month the unexpanded blossoms will be nearly full grown; no water must be allowed to fall upon them, or the blossoms would be liable to suffer injury by it. All possible air may be admitted to the plants during the day, only screen from cutting frosty winds.

CARNATIONS. At the end of the month, the last year's layers kept in pots or beds during winter, should be planted off into large pots 12 inches wide at the top, 6 at the bottom, and 10 deep. In each pot three plants may be placed triangularly, not planting deeper than to fix them securely. The following compost is most suitable: Two barrows full of fresh yellow loam, three of well-rotted horse dung, and half a barrow full of river sand, well mixed; plant in it without sifting, but breaking very well with the spade. place the plants in a sheltered situation out of doors.

CREEPERS.—and twining greenhouse or hardy plants, should be pruned and regulated before they begin to grow.

CALCEOLARIA SEED—should be sown early in the month, having the finest sifted soil for the surface.

CAMELLIAS.—Those kinds done blooming should be immediately potted, for if allowed to push the least before this is done, the operation frequently kills the tender shoots. In potting, &c. never cut the matted roots, but shake the soil off, and replace with what new soil may be required. If the balls are not matted with roots, just loosen the outer fibres with the hand, which will induce them sooner to push into the soil. A very free drainage is required, or the plants will never flourish. The following is a very good compost for growing them in:—One barrow-full of rich loam, half a ditto of peat, half a ditto of very rotten dung, or rotten vegetable mould, and one third ditto of Calais, or other fine sand. Never use sifted soil, but well broken. As soon as the plants are potted, place them in a temperature of about 68 degrees of heat by day, and 60 by night. This will cause them to push more vigorously, and more certain to induce flower buds.

DAHLIAS.—If not already put into excitement, should be done as early as possible. Seeds should also be sown, placing them in a hot-bed frame till up.

GESNERIA, GLOXINIA, and TROPEOLUM bulbs, that have been kept dry during winter, should now be potted, and be gently brought forward.

HYDRANGEAS. Cuttings may now be taken off, cutting off the tops of any shoots that have very plump leading buds, about one inch below the bud of each cutting. These inserted, each into a small pot, and placed in moist heat, will soon strike root, and will, with future proper treatment, bloomed one fine head each, most strikingly beautiful.

PELARGONIUMS. Cuttings now put in, struck in a hot-bed frame, and potted off as soon as they have taken root, will bloom during autumn.

POLYANTHUSES should now be top dressed, as directed for Auriculas, only the soil used need not be so rich. Seed may now be sown; the best method is to raise it in heat, harden gradually, and transplant when large enough.

RANUNCULUSES should now be planted, taking care no fresh applied dung is in the soil, nor should the ground to plant in be lightened up more than two inches deep. The soil of the bed should be half a yard deep at the least. The best roots for flowering are such as have the crowns high and firm, with regular placed claws.

ROSE TREE: not yet pruned, if allowed to remain untouched till the new shoots of the present coming season be about an inch long, and be then shortened by cutting back all the old wood to below where the new shoots had pushed, the dormant buds will then be excited, and roses will be produced some weeks later than if pruned at a much earlier season. Plants in pots now put into heat, will come into bloom in May.

TUBEROSSES should be planted, one root in a small pot, using very rich sandy soil; the pots should be placed in moist heat till the plants are up a few inches then they may be planted into larger pots, and taken into a stove, and finally into a greenhouse.

TULIPS.—At this season such as happened to be affected by canker will appear sickly, the roots should be examined, and the damaged part be cut clean out. If left exposed to sun and air, the parts will soon dry and heal. Avoid frosty air getting to the wound by exposure.

REFERENCE TO PLATE.

CLEMATIS FLORIDA; VAR SIEBALDII. This very handsome flowering variety was recently sent by Dr. Von Siebald from Japan. The plant grows very rapidly if planted in a warm situation, and flowers very abundantly. The petals, forming the dark centre, have a very pretty appearance in contrast with the greenish-white calyx sepals. If the plant be grown in the greenhouse it flourishes better, and produces a finer effect than in the open air. It flourishes best in peat and loam. We shall have plants to dispose of this month. Clematis, from clematis, a vine, referring to its climbing habit.

SPARAXAS (Seedling.) This very neat and pretty variety was raised by H. Dobree, Jun. Esq., Guernsey, along with a number of other very beautiful kinds. There the plants grow to the height of from two to three feet, producing spikes, with a profusion of blossoms. Their neatness, ease of culture, and beauty of the flowers, recommend them to all lovers of flowers.

CHORIZEMA OVATA. This most lovely species was discovered by Mr. Baxter, in New Holland, and is one of the neatest and handsomest greenhouse plants. It produces its blossoms in vast profusion. The plant grows about two feet high, having numerous lateral shoots, clothed with flowers. It merits a place in every greenhouse; its beauty and cheapness combine to recommend it. Chorzema, from choras, a dance, and zema, a drink. Labillardiere found this plant upon the west coast of New Holland, at the bottom of a mountain, near a place where after being tantalized with finding many salt springs. His party had just met with an ample supply of fresh water. This welcome refreshment seems to have suggested the name.

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FLORICULTURAL CABINET APRIL 1838

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TO MR
ANDREW JACO

Marguis of Solheim

1886

HERBARIUM, APRIL 1886

THE
FLORICULTURAL CABINET,

APRIL 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON RAISING TULIPS FROM SEED,

BY MR. JOHN SLATER, ALBION PLACE, LOWER BROUGHTON, NEAR MANCHESTER

THE raising of new varieties of Tulips has at length engaged the attention of the amateur and Florist, and we are now on equal terms with the Dutch Florists. This change may be attributed to the care and attention bestowed upon the taking of seed. The great misfortune of our early raisers of Tulips from seed, was, that they took seed indiscriminately, and after sowing and waiting patiently for a number of years, they were much disappointed when they came into bloom, for there was scarcely one of medium quality. Had their judgment been properly directed, the English Florist would not have been so many years behind.

I would recommend the young Florist to seed only those which possess the best properties, and where one is deficient in some points and excel in others, to impregnate the one with the other. For instance, Charbonnier Noir or Polyphemus, possess every requisite but one, and that is the ground colour, which is a pale straw. To remedy this defect, I would impregnate them with San Joe, Captain White, or Old Dutch Catafalque, or some other sort which possesses a good bright yellow colour. If the colour of the Min d'or could be added to the black feathering of the Charbonnier, it would rank as first among Bizzares. Roi de Siam,

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is generally too late for general exhibition, although it is a very fine variety. I would therefore impregnate it with Bienfait Incomparable, or La Mere Bruin Incomparable, in order to incorporate its good properties and also to endeavour to raise a sort equally as good, but rather earlier. The roses also are in general too high coloured, and here also he would endeavour to raise a variety possessing the beautiful colour of a Dolittle. Care must be taken, after impregnation, by either tying the bloom up with cotton, or placing it within a net bag, so that bees or flies may not injure your work. A careful attention to these hints would materially increase our number of good stage flowers. Tulips that have a tinge at the bottom of the cup, should not on any account whatever be seeded, as all Tulips raised from seed ~~will~~ take more or less of the parent root. Maddock recommends breeders as the most proper to seed from, and I agree with him in some respects, as the length of time the bulb remains in the ground after the tulips are got up in order to ripen the seed, is apt to spoil one in a fine rectified condition, by causing it to come what is termed dirty, that is, with too much colour. But it rarely happens that you possess breeders of the fine varieties, and of course you must in this case run all risks. To remedy this defect of too much colour, I find that by taking them up the following year, when in bloom, and placing them in sand in a shady place, has a great tendency to counteract this superabundance of colour.

On Sowing. Much difference of opinion exists, as to the proper season for sowing the seed. Some Florists sowing at the same time they plant their bulbs, and others in April. I find by experience the best time is in January. The method I adopt is to fill Carnation pots with good rich soil, and plant my seeds, (instead of sowing) edgways, and slightly covering it with soil, by so doing the seed will better force its way through the soil, than if sown promiscuously, as each seed will in all probability lie flat, which renders it less likely to force itself through the soil. Having thus disposed of my seed, I plunge the pot in a cold frame until the latter end of April, when I again plunge them in the open garden. I have also placed the pots in the open garden after sowing the seed, but I have generally lost one-half by the frost and the wind by being unprotected; I am of opinion if seed is gathered and hung up in a warm room for a few days, and then sown, a year will be gained by that means. The seed will be ripe early in August, and if sown as directed above, no doubt they will come up in three or four weeks. They will then have

two months at least to form their bulb, and if at the latter end of October, they are placed in a green house or cold frame, they will grow a little more. They will die downwards in December, and remain buried in the soil until the time your other roots begin to make their appearance, when I have no doubt they will also make theirs. Each seedling must be taken up at the end of the second year, and planted the same as you do your offsets. Each pod of seed ought to be sown in a separate pot and marked, that if you raise a good variety you may be enabled to trace its origin. Each seedling ought to be kept in a separate box or paper bag with the increase, so that when it blooms, if not possessed of good properties, you can throw the whole produce away, and if on the contrary, it should be a good one, you can then tell how many you have of it. Breeders which have bad bottoms should not be thrown away if they have yellow filaments in a bizarre and white in a rose or byblomen, as they generally break clean, but if the filaments are bad, there is not the least probability of its breaking out. Some breeders have good bottoms, &c. yet have tinged filaments, their imperfections detract from the value of the Tulip, as nothing looks so well in a good formed Tulip as the filaments to correspond with the rest of the properties.

Seedlings generally bloom the fifth or sixth year, Some make their appearance in a rectified state, and others of a self-breeder colour. In judging of the properties of breeders at Floral and Horticultural Meetings, the cup must be good as well as the bottom, and the colour, if a Bizarre, a dark chocolate, or brown. Polyphemus and Charbonnier Noir breeders, generally take the first prize in this Class. The rose breeder should be of a bright colour. The Queen Boadicea breeder, (or as it was named by some one who sold it as a new variety of Sherwood's) Duchess of Newcastle, ranks the first, having put aside the Glaphyra breeder altogether. The Byblomen breeders should possess, in addition to cup and bottom a good dark colour. As there are so many varieties of this class, it is impossible to single the best out.

Many Florists pretend to have a secret method of breaking breeders into colour. There is none better than the following. After you have grown your seedlings up to maturity, that is a blooming state, plant them for one year twenty or thirty miles distant from where they were raised, and the next year plant them at home in maiden soil, and by so doing you will break

several into colour. I have tried old mortar pounded fine and riddled through a five riddle, and about one-third of this mixed well with three-fourths of maiden soil, has broken the several breeders very fine. I have also taken them up in bloom, and placed them in the same: this also has answered my expectation^a the following year. Change of soil, is after all, the best means which I have tried yet.

I had omitted to mention in its proper place that each Tulip seed will produce a distinct variety, and that many of them in a breeder state, cannot be distinguished from each other, but when broken have proved distinct varieties; this shews the necessity of keeping each root separate as before mentioned.

ARTICLE. II.

ON THE CULTIVATION OF THE LYCHNIS FULGENS,

BY META.

THE *Lychnis Fulgens* does not appear to be so well known, or so generally cultivated, as its beauty deserves; and finding no other notice of it in the Floricultural Cabinet, than an inquiry in the first volume, as to its preservation during the winter, I forward the following observations on its culture, being a pan which succeeded well last year.

In the beginning of March the seeds were sown in a light rich soil, about six in each half-pint pot, and then placed in a gentle hot-bed: the seeds did not germinate quickly, and not more than half came up. (I think it does not seed freely, as I see none advertized in your various lists for this year.) When the young plants were about three inches high the pots were removed into the greenhouse, and the seedlings were never disturbed, as I have found by the experience of the previous year, that they were very impatient of removal. When they seemed to require it, the soil was carefully taken out from the top of the pot, and replenished with a mixture of one third loam, one third peat, and one third leaf soil: they were sparingly supplied with water; with this method of treatment, they flowered beautifully the following July. After flowering they only required sufficient water to enable them to perfect their seed, and to prevent the soil from baking, and then were suffered to subside into that state of rest, which all tuberous roots require. Before winter the roots had

grown considerably, and were then repotted in a mixture of two parts loam, one part peat, and one part leaf soil: they were placed in a dry cool part of the greenhouse, and have now (Feb. 3d,) sent out three or four stems from each root, those from last year's seedlings being three inches high, those from the previous year's six or eight.

In the summer of 1836, I put out into the open border, one or two seedlings raised the previous spring, but the transplanting checked their growth, and the stems died down. The root of one however survived, though totally unprotected, and flowered in the summer of 1838, though not so finely as those kept in pots in a cold frame during the winter, and removed into the greenhouse in spring.

Loudon in his *Hortus Britannicus* states the *Lychnis Fulgens* to be a native of Siberia, introduced into England in 1822; it may therefore be supposed hardy enough to be ranked amongst our border plants, but its beauty will well repay for a little extra care.

I think probably, seeds sown in the border and protected by a glass until frosts are over, would succeed, and during the winter, some manure, or coal ashes over the roots might be sufficient, but as mentioned before, one plant withstood the trying spring of 1837, without any protection whatever. Being a tuberous root, the best time for dividing it would be the autumn, or before potting it for the winter.

I would scarcely believe the report I received with any seedlings in 1836, that the colour was equal to that of *Verbena Melindrus* while the blossom was an inch across: but this far from being an exaggerated description, was quite correct as to the brilliancy of the hue, and below the truth as regards the size of the flower, mine being about two inches across; and when two or three were open at the same time they were almost too dazzling to look at, for long together.

ARTICLE III.

ON THE CULTURE OF GLADIOLUS PSITTACINUS.

BY W. W.

HAVING derived much useful instruction from the perusal of the *Floricultural Cabinet*, which I have taken in from its commencement, induces me to request you to insert, in an early number,

the particulars of the culture of the *Gladiolus Psittacinus*. May fine large roots, when planted in the open ground, be depended on flowering? if so, at what time should they be planted? If potted and raised in a hot-bed, do they require much or little water? in short, should they be well watered under all, or any circumstances? I presume that the full grown roots should be taken up in the autumn: as they do not die down early, perhaps the end of October would be the best time.

As to the young roots I observe that they come up luxuriantly in the spring when left in the ground; I succeeded tolerably well with these roots last year by raising them first in a hot bed, being potted the beginning of March, then placing them in a greenhouse till the beginning of June, when they were planted in the borders; but they did not quite realize my expectations, having seen them growing more luxuriantly at the Horticultural Gardens, therefore I am desirous of knowing the best method of proceeding with them. Some roots that I left in the ground through the winter, rotted, at least the hearts dwindled away, sending up an immense quantity of young ones in their places.

It would be desirable to grow them without first raising them in a hot bed: but of those that I have planted in the ground few have flowered. I believe they require a sunny situation.

Clapham, 12th January, 1838.

ARTICLE IV.

ON THE RELATIVE MERITS OF IRON AND WOOD ROOFS.

STOVES, GREENHOUSES, &c

(CONTINUED FROM PAGE 72)

HAVING, I think, fully shown, the advantage possessed by wood over cast iron in those very essential points; the better growth of plants, and the saving of fuel, glass, and labour; I shall now add to these observations a few words on the various systems of heating houses; that is to say, with common flues with steam, and by the circumvolution of hot water. The last named method is now becoming very general, and is admitted by all scientific men to be the best, because it is the safest; the most certain, and no doubt when perfectly fitted upon a good principle, it is also the most economical as regards the expenditure of fuel and

the application of labour. Entering, therefore, on this all-important subject, I shall confine my observations in the first place to advantages of hot water over steam, which are, in my opinion, very great, particularly where coals are expensive; for, to generate steam an enormous consumption of coals, or oven coke, which is nearly as expensive, is indispensably required, as a weaker fuel will be found of no avail. This is the first evil of the steam system, and the second is, that a man's time must be nearly, if not wholly employed in affording that constant attention which is necessary to keep up the fire. Then in the third place, there is a considerable loss not only of time, but of fuel also before the pipes become filled with steam. This is a very important part to which, perhaps, due attention has not been paid, for it may not be generally known that steam travels through the pipe in a time no shorter than it requires to make them nearly as hot as itself; for steam, the instant that it comes in contact with a body colder than itself becomes condensed, and its onward motion is of course impeded. Again, the moment the fire becomes too weak to keep the water at the boiling point; so that steam may be generated, it immediately ceases to furnish heat to the pipes; consequently the pipes soon become cold, and this is the fourth evil of heating by steam, which is avoided by the use of hot water; for the instant the fire is ignited and the water gets warm, the particles of the fluid are set in motion, and circulation in the pipes commences, and continues until the whole of the fuel is consumed, or so long as there remains any heat in the furnace, in the bricks, or in the boiler. Still further, I have found two pipes each four inches in diameter when filled, the one with water at a heat of 200 degrees, and the other with steam, the one with the hot water would contain a much greater and more enduring body of heat than one filled with steam; and I have no doubt that if, when both pipes are heated up to the stated temperature, the fires were suffered to expire, the pipe containing steam would cool as much in one hour as the hot water pipe would in six or seven hours. These facts are stated from accurate observation, frequently repeated, and from exact calculations, very severely tested; they may, therefore, be considered to demonstrate in the last place, the decided advantages which the plan of heating by the circumvolution of hot water passes over the rival system of heating by the diffusion of vapor. To the superiority of the hot water plan, as to economy, both of fuel and

labour, I may be allowed to bear witness, for during the last fifteen years I have devoted the best energies of my mind to the subject. Throughout that period I worked four steam boilers, and had under my own eye the direction and application of no less than six of the most approved systems for raising temperature by means of hot water. This extensive experience and the opportunities it afforded of drawing an impartial judgment on the merits and defects of all the different systems, added to a natural taste for, and love of experiment, directed me to the construction of my economic egg shaped, wrought iron boiler, which has not only received the direct approbation of every engineer who has witnessed its operations, but is considered by them and all who have adopted it, as the most simple and economical of all the plans as yet submitted to the public. So confident am I in its superiority, that I always offer a guarantee to all who employ me to fix it, that I will keep it in repair and take the responsibility of its acting properly for three years, provided that it be fairly used. On such conditions, those who favour my invention cannot run much risk nor entertain any apprehensions as to its efficacy, for surely three years will afford them ample time to decide upon its merits and advantage. Its chief features are its expense and the economy of its arrangement, &c.

Aware as I am that any information from practical men, explanatory of the cause of improper working in so many hot water apparatuses, will be acceptable to all gardeners who have the management of them, and who peruse your truly valuable publication. I will briefly state a few of the principal causes to which failures are attributable; among which none are more difficult to overcome by persons unacquainted with the hydradynamic principles on which the action of hot water is regulated, than the accumulation of air in the pipes. Indeed, unless proper arrangements are made for the escape of the air which is evolved from the water when at a boiling point, no apparatus can act properly. Now, from some accidental cause, even in the best constructed apparatus, this air may collect and lodge in the corners or angles of the pipes, particularly when they have to rise and fall; this should be particularly attended to, as the want of due regard and necessary precaution in this particular, is in my opinion the principal cause of the many failures with hot water, and the reason why this description of apparatus is sometimes spoken of unfavourably; for I have invariably found from practi-

cal experience that water will not circulate beyond the point where there is an accumulation of air, and the more powerful the attempts made to remove the obstruction by increasing the strength of the fire, &c., the more likely is the apparatus to work improperly, and to cause an overflow of water in the supply cistern. Therefore, as soon as it is discovered by the gardener or person having the management of the fire, that the water does not circulate regularly, he should trace the water by its warmth along the pipe to the place where he finds the metal cold; and then in the next bind, or angle, should he not find an air tap, I should recommend him to procure a blacksmiths drill and to have a hole made in the pipe, when he will find the air to pass off rapidly and the water to follow instantly. Then, should he not be prepared with an air pipe, a small wooden plug would suffice until an opportunity offered to fix one properly; as in all probability it might be many months and perhaps years: if the cistern be carefully and continually attended to, before such an accident could occur again at that particular joint or bend, I would, however, strongly recommend that in every apparatus ample provision should be made for the escape of the air, at every bend where it is likely to collect or lodge, for I have witnessed during the time I had the management of six systems of hot water, that from some unknown cause, an apparatus which had worked properly for one or two years, would suddenly get out of order, when, on tracing the pipe as before described, as far as I found it warm, I have then, on drilling a hole at the first turn or bend where the pipe began to feel cold, found an accumulation of hydrogen carbonic acid gas, the heaviest of all the gasses lodged in the angle, and as soon as this was allowed to escape, the apparatus worked as regularly as usual. To remove this difficulty which to persons unacquainted with the cause of the obstruction, would appear formidable, nay almost insurmountable, not more than ten minutes space was sacrificed; and on interrogating the man who had the management, as to whether he had allowed the cistern to fall below the proper level, I discovered that the derangement had been caused through his negligence and inattention, in having suffered the water to sink below the level of the top pipes, which of course left a vacuum for this foul air: I would therefore advise all persons, when not using the apparatus, either to draw the whole of the water off, or to keep the cistern as full as when in use; this precaution will prevent the air from

collecting, but when the boiler is filled again, they should be careful to leave the air taps open, until the water begins to flow out, or, till the boiler is full, to prevent a repetition of the inconvenience. There is also another highly important arrangement connected with hot water apparatuses, property of the metals, which should be attended to with great care. I mean the allowing of a sufficient longitudinal expansion for the pipes on their becoming hot; as it should be born in mind, that iron pipes when heated to 200 degrees, will expand nearly 2 inches in a length of 100 feet, and as a proof of the necessity of attending to this part, I may relate a circumstance which fell under my observation. A few years ago a nobleman's conservatory in Hampshire was heated with hot water, at the expense of between three and four hundred pounds, and the pipes of the boiler were introduced through the stone that formed the foot-path, in which holes were cut, just large enough to admit a 4 inch pipe, but not of sufficient diameter to allow for the expansion of the metal; and I well remember, that in consequence of this oversight in fourteen or fifteen different situations where the pipes had to pass through the stone, the joints burst. In each of the 80 feet lengths of pipe, which amounted to about seven or eight lengths altogether, one third of the joints burst, which had only been used three or four times at intervals, it continues to crack to this hour and will do so until they allow room for the expansion of the pipes where they pass through the stone. Having thus given a few brief instructions for the management of hot water apparatuses, and knowing there exists a great diversity of opinion relative to the quantity of water a boiler should contain, and of the dimensions of the water way both in pipes and boiler, so as to secure a regular and lasting temperature, I hope it will not be considered presumptuous in me to offer a few observations on that subject, and leave the impartial reader to decide the question. It is natural that every constructor of hot water apparatus should be prejudiced in favour of his own peculiar plan, the child of his own mind; here it is that the prescribed dimensions of the conducting pipes, vary from $\frac{1}{2}$ an inch to 5 or 6 inches in diameter, according to the different plans of different individuals. I shall merely give my judgment on the proper sizes, without commenting on any peculiar plan. It is my opinion that hot water apparatus, to answer all the desired purposes, should be so constructed as to avoid either objectionable extremes; since

pipes of too large or too small dimensions are equally to be avoided, and this for reasons which I could easily adduce, were it not that I desire on this occasion to confine my remarks to boilers formed of a series of pipes, varying from half an inch to two inches, which I admit have a great advantage over boilers containing large bodies of water, in as much as they become hot much more quickly, but then it must be recollected, that the larger body when once heated, will remain hot twice or three times as long as the other. And I have proved by observation that a 4 inch pipe, which contains double the quantity of water which a 2 inch pipe is capable of receiving, in a house of the same temperature, will retain its heat for more than double the length of time. Moreover, when boilers are used that have such small water way and small pipes, they require more attention, and cannot be left at night with the same safety as boilers and pipes containing larger bodies of water, seeing that the former cools so much more rapidly than the latter. Nevertheless, to err in the other extreme, by having boilers and pipes to contain very large quantities of water, would be a great waste of fuel and by no means calculated to answer to the satisfaction of all parties, so well as a boiler and pipes of a medium size; it is my opinion, therefore, that in neither boiler nor pipes should the water way be less than 3 inches, nor more than 4 inches, and the boiler should be so constructed without complication as to expose the greatest possible surface to the action of the fire, this would be found the most economical shaped boiler for fuel and effect, for I have always remarked, that the great object of all persons who heat their houses with hot water, is the saving of fuel, &c., which is very considerable, when compared with the expense attendant on a badly constructed flue, moreover, an opportunity is offered of heating several houses at the same, or very little more expense: this I have always considered of the greatest importance, particularly, when a gentleman's establishment is situated a great distance from coal mines, and in all my arrangements with hot water I have always continued to have the body of water in the pipes which run through the house, as it is there that the gardener requires a permanent and lasting heat, this it is that induces me to advocate the use of 3 inch and 4 inch pipes. Moreover there are great objections to the use of small pipes varying from half an inch to two inches, particularly when the boiler (as is the plan of some) is formed of a series of pipes, in such cases their

interior become in course of time "furred" up, from the incrustation formed from the depositions of the various lathy matters held in solution by the water, which naturally causes an accumulation of alkaline earths, &c., &c., which in time closes up the water way. I have thus freely expressed my opinion on the demerits of pipes of small calibre; but it must not be thence inferred that I shall err on the other extreme, as that would be attended with much sacrifice of fuel to the proprietor, and great inconvenience to the gardener. For if boilers and pipes are used capable of containing unnecessarily large quantities of water, there will be a great waste of fuel before any heat is communicated to the house, and, perhaps, a valuable crop of fruit or plants may be destroyed through the gardener not having a proper command of heat, in order to prepare against those alterations in the weather so frequently sudden and unexpected in this changeable and uncertain climate.

I have found in the course of my experience and observations, that more especially, in the months of October, November, and December, but with less frequency at all periods of the year, that up to the hour of 12 o'clock at night, rain may fall in torrents and the gardener may naturally conclude, that during the night, no fires will be required, either for greenhouses or conservatories, but how great must be his trouble and surprise to find in the morning eight or perhaps ten degrees of frost. Now this trouble and inconvenience I have frequently experienced; therefore for the benefit of all parties and the protection of plants, &c., I beg to repeat here the opinion I have already given, that, for an apparatus to answer all purposes, boilers with a medium size, with water ways not less in any part of the boiler than three inches and not more than four, will give the gardener a sufficient command of heat, and afford him an opportunity of protecting the perishable property entrusted to his care, without subjecting himself to reproach, which is too frequently unjustly heaped upon him for loss of property, through circumstances, over which he could have no controul. For to limit a gardener to means, when much is expected, can only be compared to setting a man to dig who has neither legs nor arms.

(To be continued.)

ARTICLE V.

REMARKS ON THE SHRUBBERY.

BY REV. HENRY HILL, A. M.

(Continued from page 64.)

But it requires considerable ingenuity to hinder these elevations from having the appearance of artificial ones, which would make them as ridiculous as a circular lake on a lawn. As the removal of earth is attended by the expense of labour only, this is one of the most advantageous manners of laying out money in the formation of a shrubbery, since five feet lowered in one part and raised above will give a slope or bank about double that height. A considerable effect will thus be obtained; for in a flat country a small elevation gives a great command of prospect, and adds itself considerably to the beauty of a landscape, especially when planted with lofty growing trees, as larches and pines. An undulating appearance may be given to level ground, by judiciously planting the trees and shrubs.

The too general error of planting close to the dwelling-house should be avoided; for although such a plantation may have a pretty appearance in the infant state, a few years' growth will cause it to cast a gloom over the apartments, and keep off a free circulation of air. Besides, as plants give out a noxious air in the evening, it should be more particularly guarded against in this moist atmosphere.

The training of trees to the walls of houses is also objectionable, as they cause damp, harbour insects, and collect leaves and other substances that become offensive by their putrefaction, whilst the view of the plants themselves cannot be enjoyed from the windows. However, all offices, out-houses, and unsightly buildings, may be covered with vines and ornamental climbers.

However small the plantation be, those abrupt terminations which mark the limits must not be permitted. The shrubbery should harmonize with the surrounding scenery, and appear to blend with it into one.

The plants which stand nearest the dwelling must be of the dwarf kind, and of the most beautiful sorts. The trees, also should be selected so as to correspond with the style of building. The villa shows best when surrounded by light ornamental trees, such as the birch, the acacia, the sumach, the laburnum, and cypress: and a clump of poplars may sometimes be introduced, so

as to break the line with good effect. The cottage may have more rustic trees; while to the castle belong the oak, the ash, and the pine, the mansion admits of all at their proper distance, and in suitable situations.

One of the most important things in planting is to attend particularly to the shades of green, especially where the view from the house or lawn catches the trees. Flowers which Pliny calls the joys of the trees, continue but for a short period, in comparison to the duration of foliage; therefore, the picture should be formed by judiciously contrasting the greens. Even the effect of perspective may be considerably increased by the proper arrangement of hues. Trees whose leaves are grey or bluish tint, when seen over or between shrubs of a yellow or bright green seem to be thrown into the distance. Trees with small and tremulous leaves should wave over or before those of broad or fixed foliage. The light and elegant acacia has a more beautiful effect when its branches float over the firm and dark holly or bay-tree. In some situations the bare trunk of trees may be shown; in some, it should be concealed by evergreens and creepers. Vines, also, may be suffered to embrace it, and form natural festoons where the extent of ground will allow of wilderness scenery. In all situations, nature may be assisted, but should never be deformed by clipping; for ingenuity ought to be employed to disguise art, not to expose it.

The beauty of plants cannot be displayed when they are too much crowded, as they are then drawn up into unnatural shapes. Therefore, the oftener open spaces can be admitted, the more will the shrubs exhibit themselves to advantage, and the more cheerful will be the walk; for it becomes insipid and gloomy when confined for any distance. The winds also claim our attention. Care must be taken so to arrange the position of the trees, that only those gales which are most congenial to the growth of particular plants should be allowed access to them.

The undulating appearance of a plantation will be considerably assisted by a gradual progression from the lowest shrub to the highest tree, and again, from the highest to the lowest. But as some shrubs will not flourish under certain trees, their respective situations demand consideration. These shrubs may indeed exist under such unfavourable circumstances, but their unhealthy appearance will never be pleasing. Where the shade of any tree is too powerful for laurel or privet to thrive, ivy may be planted

with advantage, if it be desirable to cover the ground with evergreen.

In proportion as the shrubbery or plantation recedes from the dwelling, it should become more rural in its character, more especially if the house be in the cottage style. Here climbers and such plants as require the support of others, are to be introduced. The most delightful groups in a pleasure-ground are generally those where nature, freeing herself from the shackles of art, depends only on her own assistance for support. Her beauty is chiefly to be seen there where her various creations combine spontaneously, and without restraint.

The means by which these plants raise themselves up, so as to offer their flowers to the sun, are as various as they are curious, and they seldom blossom whilst trailing on the ground. The ivy and bignonia ascend by the help of little fibres, which fix themselves to the bark of trees or crevices in walls so tightly, as to render their disengagement a difficult thing to be accomplished without injury to the trunk or building they are attached to. The honey-suckle like the hop, twines itself spirally around the trunk or branches of trees, and often clasps them so closely, as to make an impression on the hardest timber. Others, as the vine and passion-flower, rear themselves by means of corkscrew tendrils, which hold so fast, that the strongest winds seldom disunite them from their support. Some plants climb by means of a hook in their leaf-stalk, or have a kind of vegetable hand given them, by which they are assisted in mounting, as the pea and several others.

To return from this digression.—The sombre, gloomy walk of yew, cypress, or holly, should lead to the spot from which there is the most beautiful prospect, or to the gay parterre where Flora has diffused her flowery beauties; as the contrast, particularly if sudden, adds greatly to the cheerfulness of the terminating view.

Bad taste is seldom more conspicuous than when we see trees or plants marshalled in regular order and at equal distances, like beaux and belles standing up for a quadrille or country dance. Where the situation will permit, four or six lilacs should be grouped in one place, and as many laburnums in another so as to give effect in various parts by a mass of colour.

The guelder rose should appear as if escaping from the dark bosom of evergreens, and not a plant should be set in the ground

without adding to the harmony of the whole. A shrubbery should be planted, as a court or stage dress is ornamented, for general effect, and not particular and partial inspection. Boldness of design, which seems to be more the offspring of nature and chance than of art and study, should be attempted; but though boldness is what the planter should aspire to, all harshness, or too great abruptness, must be avoided, by a judicious mixture of plants whose colours will blend easily into one another.

The most beautiful shrubs should occupy the most conspicuous and prominent places. For instance, a projecting part of the plantation should be reserved for the purple rhododendron, the flaming azalea, and other bog plants. Here, it must be observed, that unless proper soil be provided for these American plants, the cost of the shrubs will be lost, as they will soon decay when not placed in earth congenial to their nature. With these shrubs may be planted the hardy kinds of heath, as the same soil suits both species. With respect to evergreens, considerable judgment is required, in order to relieve their uniform appearance during winter. This may be done, by skilfully arranging different kinds, and those with variegated leaves, or such as retain their brilliant berries during the cold months.

However, a well planted shrubbery depends not so much for its beauty on the expense or rarity of the plants it contains, as on the selection of trees and shrubs which succeed each other in blossoming throughout the year, or whose various-coloured fruits grace them for the longest duration of time. We shall, therefore, not dwell upon those plants alone that are the ornaments of the summer season; but also point out some that will contribute to the gaiety of morning and evening of the year; so that the gloom may be banished at all time as much as possible from the grove, and nature's repose shortened between the plaintive good-night of autumn, and the cheerful good-morrow of spring.

The hazel and filbert are amongst the number of those trees that blossom the first; and although their crimson female flowers, which appear about the middle of January, make but little show, yet they should have a place in the shrubbery to display their catkins, that hang with such peculiar grace from the branches, at a season when scarcely any other plant or shrub offers a flower, excepting the rosemary.

(To be continued,)

PART II.

LIST OF NEW AND RARE PLANTS,

*Noticed since our last.*1. MORNA NIVEA. *Snowy.*

[Bot. Reg. 9,

ASTERACEÆ SYNGENIA POLYGAMIA ÆQUALIS

An interesting half hardy annual, raised by R. Mangle's, Esq. from seeds sent from the Swan River colony. The present species very much resembles *M. nitidia*, excepting the flowers, which are white, whilst those of the other species are yellow. The flowers of this genus are of the character, usually termed everlasting, keeping for years after being gathered, which gives additional interest to their neatness. The flower stems rise to about half a yard high, produces a profusion of blossoms during the summer and autumnal montas.

2. PASSIFLORA NIGELLIFLORA. *Nigella flowered Passion Flower.*

[Bot. Mag. 3635.

PASSIFLORIEÆ. MONDELPHIA PENTANDRIA.

Mr. Tweedie discovered this species at St. Jago d'Estero in 1835, and sent it to the Glasgow Botanic Garden, where it bloomed in the stove during last summer. The plant much resembles *P. citiata* or *gossypifolia*. The flowers are white, each about an inch and a half across.

3. THYSANOTUS PROLIFERUS. *Proliferous.*

[Bot. Reg. 8.

LILIACÆ. HEXANDRIA MONOGYNIA.

This very singularly beautiful greenhouse perennial was raised by R. Mangle's, from seeds sent from the Swan River colony. The flower stem rises about two feet, and bears two or three umbels of its singular fringed flowers, the umbels being two or three inches apart up the stem. Each umbel contains from eight to a dozen blossoms, and a blossom is near an inch across. The petals are of violet purple, having a lilac line up the middle of each. The edges of the petals are densely feathered with fringe. It is a very neat and desirable plant, well meriting a place in every greenhouse, *Thysamotus*, from *thusamotus*, fringed, referring to the edges of the petals.

4. ARISTOLACHIA SACCATA. *Pouch-flowered Birth Wort.*

[Bot Mag. 364.

ARISTOLECHIEÆ. GYNANDRIA HEXANDRIA

This very singular flowering plant is a native of Silhet, and was sent from the Calcutta garden in 1829, to the royal Botanic Garden Edinburgh, where it bloomed last September. The plant is a twiner, growing to a considerable length. The leaves oval, heart-shaped, from a foot to fifteen inches long, and four to six broad. The singularly formed flowers are produced numerously in racemes; each flower is about five inches long, pouch-formed, the tube turning upwards from the middle, and bending parallel with the other portion of the tube, the inside of the tube is a whitish yel-

low. The mouth and throat of the tube of a bright golden yellow, with an edging of deep purple. The outer side of the tube is of a rosy white and pale purple.

5. BORONIA CRENULATA. *crenated leaved.*

Bot. Reg. 12.

RUTACEÆ. OCTANDRIA MONOGYNIA.

A very handsome flowering species, which is a native of King George's Sound, where it was discovered by Mr. Menzies. It bloomed in the greenhouse of Messrs. Lodiges's at Hackney, and forms a neat bushy plant, with deep green foliage. It produces a profusion of flowers of a bright rosy-red colour. Each flower is about half an inch across. This species deserves a place in every greenhouse. Like the rest of the species, it requires to be grown in an airy, and light part of a greenhouse. The most suitable soil for all the tribe is a sandy peat, using a free supply of drainage, and frequently shifting each plant into a pot a size larger. If over-potted they often die. Baronea, so named in compliment to Borane, who was servant to Professor Afzelius, this faithful servant went with his master to Sierra Leone, where he died.

6. COMUS SCABIOSOIDES. *Scabious-like.*

Bot. Reg. 15.

ASTERACEÆ. SYNGENESIA SUPERFLUA.

A native of Mexico, from whence seeds were sent to J. F. Dickinson, Esq. and by that Gentleman presented to the Horticultural Society of London, in whose garden it bloomed last year. The flowers are produced numerously, each blossom being about an inch and a half across, of a deep crimson inside with the stamens, forming a yellow eye; outside of a deep rosy red. It is a very handsome species, well worthy a place in every flower Garden. It is supposed very probably, that the flowers of the genus will become double, similar to the Dahlia. There are several other species of this pretty tribe, not yet introduced into this country, with pink, bright yellow, or deep purple flowers. There are now annually importations of Mexican seeds into this country, we may therefore conclude that seeds of these beautiful plants will soon be introduced.

7. ERICA CHLOROBOMA. *Green tipped Heath.*

[Bot. Reg. 17.

ERICACEÆ OCTANDRIA MONOGYNIA.

This very pretty flowering species is cultivated by Mr. Young, nurseryman Taunton, Somersetshire, where it has bloomed. The plant is of an erect habit, and the flowers are produced upon the young shoots in vast profusion. The flowers are near three quarters of an inch long, of a beautiful crimson colour, having a green tipped end. They hang pendulously along the shoots. It is a very neat and desirable species.

8. ERICA FLORIDA; var. CAMPULATA. *Drooping round headed Heath.*
(Bot. Mag. 3639.

This very beautiful flowering heath is cultivated in the superb collection at Bothwell Castle, where it was raised from seed by the very skilful gardener, Mr. Turnbull, in 1835, and though but two years old, the plant is near a yard high, and has produced a profusion of blossoms, of beautiful rose colour, and their campanulata form, show them prettily to view. Each blossom is about a quarter of an inch long, and the same at the mouth. It is a very desirable variety of this interesting genus.

9. GOVERIA LILIACEÆ. *Lilly flowered.* (Bot. Reg. 13.

ORCHIDACEÆ. GYNANDRIA MONANDRIA. Synonym MAXILLARIA LILIACEÆ.

A native of Mexico, growing under the shade of trees, or sometimes grows over their roots. It is a tuberous plant, having the habits of *Bletia*, the flower stem reaching about a foot high, it is sulphur white, spotted and streaked with reddish-purple. The first notice of this plant was by M. Hernandez, who describes it by the name of *Iztactepetzacuxochitl* *icohueyo*. The plant is very rare in this country, and probably in no collection but that of George Barker, Esq. of Birmingham.

10. MAMILLARIA ATRATA, *Dark green Cactææ*

ICOSANDRIA MONOGYNIA.

A very handsome flowering species. This truly interesting and singular tribe of plants grown in the celebrated collection of Mr. Mackie of Norwich. The flowers are produced numerous around the top of the fleshy trunk. Each blossom is upwards of an inch across, of a bright rosy red colour, with the anthers forming a yellow eye. The singular form of the plant, and the arrangement of the numerous pretty blossoms contribute to recommend it to every cultivator of this tribe of plants.

11. PENTSTEMON CRASSIFOLIUS. *Thick-leaved.* (Bot. Reg. 16.

SCROPHULARIACEÆ. DIDYNAMIA ANGIOSPERMIA.

The late Mr. Douglas discovered this pretty species on the north-west coast of North America, who sent seeds to the London Horticultural Society, at whose garden it bloomed last year. The plant is of a suffruticose habit, growing a foot high, quite hardy. It is a free flowering species, produced in racemes. Each flower is about an inch and a half long, of a pretty lilac colour. The lower part of the tube is of a bright rose colour. It is a very desirable plant for the flower garden, its dwarf habit, and pretty flowers alike recommending it.

12. PHILADELPHUS HIRSUTUS. *Hairy Syringa.* (Bot. Reg. 14.

PHILADELPHACEÆ. ISCOSANDRIA MONOGYNIA.

This species was found by Mr. Nuttall in Tennessee on the rocky banks of French Broad River, near to warm springs. It is a hardy shrub, growing not more than three or four feet high, blooming in the middle of July. The flowers are white, each about an inch across, without fragrance. It grows well in a rocky situation.

ON THE AURICULA.

In the three winter months from the 21st of November to the 21st of February, Auriculas do not require much of our care, beyond watering them occasionally, plucking off the dead leaves and covering them with mats, or a little coarse hay litter during the severe frost; and this covering ought more particularly to be given them in February, because their trusses then begin to appear, which, if frozen hard, will be detrimental to the bloom. They want very little water in the winter, and seem to be best when kept rather dry than otherwise in December or January. Early in February, if the weather is mild, you may give them a day's gentle rain, and this may be repeated, if necessary during the month. You may now give them manured water twice, and do the same again in March, allowing a week between each watering. Top dressing is requisite.

PART III.

MISCELLANEOUS INTELLIGENCE

QUERIES.

ON PRODUCING DWARF COCKSCOMBS.—I shall esteem it a great kindness if you, or any of your correspondents would give me the particulars of a mode of treatment, or the best method of producing dwarf cockscombs, so as to retard the protrusion of the flower stalks, so that they may become of greater strength. I have for several years followed the rules laid down in Abercrombie's Practical Gardener, but invariably had them drawn up from nine to fifteen inches in height; if you or any of your correspondents would be kind enough to inform me through the medium of your valuable Cabinet how they may be prevented from being drawn up, likewise the distance they ought to keep from the glasses, will be conferring a favour on
A NEW SUBSCRIBER.

ON SOWING ANNUALS.—Being a great admirer of annuals, and as the season for sowing them is approaching, I hope you will devote some pages of your Cabinet to the method of cultivating them with the greatest success.

I shall be glad to know the soil that best suits the generality of those recommended in your lists. And it would be very useful if in the list you are giving you would distinguish those which are improved by being transplanted; and on the other hand, those which are the better for being allowed to blow where they have been sown.

Can you inform me how it is that seeds, although carefully saved from the best flowers, (as of Asters and Marygolds, for instance) nevertheless produce inferior flowers the following year? Am I right in attributing the mischief to bees, of which great numbers are kept in my neighbourhood?

Will you inform me also how to prevent double Polyanthuses from losing colour and becoming single—a calamity which occurs in my garden?

AN AMATEUR,

ON A FLOWER AND KITCHEN GARDEN.—A Subscriber will be very much obliged to the Editor, if he will in his next number mention what he considers the best practicable and easy method to give to an intelligent, but not much experienced gardener some instruction as to the general management of a Flower and Kitchen garden, and the best method of growing the different kinds of vegetables, pruning and other ordinary operations.

Is the "Adelaide d'Orleans rose, figured in the Cabinet of last September, a climber? The writer has had two young plants sent him, in pots, which from the character of the stems, &c. appear decidedly of the climbing sort, and not at all corresponding with the figure given in the plant just mentioned. An answer to this query will much oblige
CLERICUS.

ON THE VIEUSSEUXIA, &c.

In Loudon's "Hortus Britannicus" (about the 22d page), under the article *Vieusseuxia*, several species are enumerated. One, the *V. Pavonica*, (formerly called *Morœa Pavonica*) has a reference to a certain page, in Curtis's Botanical Magazine, where it is figured in its proper colours; and the colour

of the blossom is also put down in the proper column. There is also the *V. Glaucopsis*, (formerly called *Iris Pavonia*) with references to the figure and colour. I last year applied, by means of a friend, at ten different florists' shops in London, for some of each of these bulbs: I received some bulbs, which were called *Iris Pavonia*, they bloomed very well, and proved to be the *Vieusseuxia Glaucopsis*, a very pretty and curious flower. I this year again applied (as my friend tells me) to all the London Florists, who were shewed an extract from Loudon, and also from "Sweets' Hortus Britannicus," which agrees with Loudon, and the answer was, that "they were the same." Now, Sir, this is impossible, for neither Loudon or Sweet would give an account of the two different species if there were only one, nor would they give the names, *V. Pavonica*, olim *Morcea Pavonica*, and *V. Glaucopsis*, olim *Iris Pavonia*, nor the colours of the two flowers, nor references to two figures, if they were only one and the same. The *V. Pavonica* is like the *V. Glaucopsis*, excepting as to the colours, the former being, as I am told, very beautiful, as coloured in the plate referred to.

As I presume you, as well as many readers of the Cabinet, must be well acquainted with Loudon's and Sweet's books, and also with these two several species of *Vieusseuxia*, I will feel obliged if some person will have the goodness to inform me, in the earliest Floricultural Magazine, where I can procure some *V. Pavonica*. I have plenty of the *V. Glaucopsis*. In this year's Catalogue of Bulbs, published by Lochhart & Co., Cheapside, there is no mention of any *Vieusseuxia* whatever; but there is *Iris Pavonica*, and the bulbs are very fine and cheap. I had some from them last year and they bloomed well. I believe the London Florists, as they call themselves, are far from being well informed in Floriculture, or there would be no omission of the Genus *Vieusseuxia* in their catalogues; nor would they say that the *V. Pavonica*, and *V. Glaucopsis* were one and the same, with the "Hortus" before their eyes, if they possess the books, which I very much doubt.

In "Aiton's Epitome of the Hortus Reivensis," page 16, there is noticed "*Morcea Pavonia*, Peacock *Morcea*, coloured in the Botanical Magazine, (Curtis's) table, 1247, brought from the Cape of Good Hope, in the year 1790. I believe this is what I want.

BURRIENSIS.

ANSWERS.

A LIST OF FLOWER AND GARDEN HERBACEOUS PLANTS.—Seeing a query in the December Number of the Cabinet, requesting an early list of Herbaceous plants that will stand the changeable temperature of our climate, I have taken the first opportunity of obliging your correspondent.

Those marked (o) are rock plants.

<p>Acanthus</p> <p>mollis spinosus phinosissimus illiciflans</p> <p>Aconitum</p> <p>hycoctonum album variegatum Japonicum uncinatum speciosum virgatum formosum venustum</p>	<p>Aconitum</p> <p>pyramidales versicolor. decorum rubellum</p> <p>Achillea</p> <p>grandiflora ptarmica ageratum. speciosa alpina serrata o calavennæ rosea nobilis</p>
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- Adonis**
 vernalis
 apennina
- Agrostemma**
 corronaria
- Alchimella**
 o **pubescens**
 o **alpina**
 o **sericea**
 o **hybrida**
- Aletia**
 auria
 farinosa
- Alyssum**
 o **saxatile**
 o **orieneale**
 o **argentium**
 o **obtusifolia**
 o **tortuosum**
 o **vernale**
 o **montanna**
- Amaryllis**
 Belladonna
- Ammobium**
 alatum
- Arabis**
 o **præcox**
 o **ambigua**
 o **alpina**
 o **albida**
 o **longifolia**
 o **crispata**
 muralis
 o **stricta**
 o **procurrens**
 petroea
- Aralia**
 nudicaulis
 racimosa
- Aretia**
 o **vitalana**
 o **alpina**
- Arenaria**
 o **graminefolia**
 o **longifolia**
 o **formosa**
 o **grandiflora**
- Aquilegia**
 vulgaris
 canadensis
 atropurpurea
 viridiflora
 viscosa
 siberica
 alpina
 formosa
 hybrida
- Artemisia** o **glacialis**
- Artemisia rupestris**
 o **pedemontanna**
 o **caucasica**
 o **spicata**
 o **saxatilis**
- Asclepias**
 tuberosa
 syriaca
 nivea
 incarnata
 rubra
- Bellium**
 minutum
- Bellis**
 o **sylvestris**
 o **perenis**
 o **hybrida**
- Bocconia**
 cordata
- Borayo**
 o **laxiflora**
 crassifolia
 orientalis
- Calceolaria**
 o **fothergillii**
- Campanula**
 o **pulla**
 o **rotundifolia**
 o **pumila**
 neglecta
 tenuifolia
- Cardamine**
 pratensis
 auraria
- Catanache**
 cærulea
- Centauria**
 glastifolia
 alba
 macrocephala
 alata
- Cerastium**
 o **grandiflorum**
 o **tormentosum**
 o **biersteinii**
 o **lanatum**
- Cheiranthos**
 o **cheiri many varieties**
 o **alpinus**
- Chelone**
 grandiflora
 digitalis
 glabra
 oblequa
- Dianthus**
 barbatus
 o **latifolius**
 o **capitatus**

(To be continued.)

REMARKS.

UPON THE CRESTED AMARANTH, OR COCK'S COMB. *CELOSIA CRISTATA*.—The flowers of this plant are so numerous and small, and so closely set together on an irregular and flattish surface, that it frequently looks more like a piece of rich velvet than a vegetable substance. We do not find it placed in floral language, and have therefore given it as the emblem of singularity. It is a native of several parts of Asia, and is common in Persia, China, and Japan, where we are informed it is grown to such perfection, that the crests or heads of flowers are frequently a foot in length and breadth. The most perfect plant of this kind grown in England, was grown by Thomas Andrew, Knight, Esq. and sent by him to the Horticultural Society of London in October 1820, a drawing of this extraordinary flower is now to be seen in the library of that institution; the flower of this extraordinary plant measured seven inches in height, and eighteen inches in width, it was thick and full, and of a most intense purplish red colour.

In producing this singular plant, the first object was to retard the protrusion of the flower stalk, so as to give it as much strength as possible. The compost employed was of the most nutritive and stimulating kind consisting of one part of unfermented horse-dung, fresh from the stable, and without litter, one part of burnt turf, one part of decayed leaves, and two parts of green turf, the latter being in lumps of about an inch in diameter, in order to keep the moss hollow, that the water might have free liberty to escape, and the air to enter. There are varieties of Cockscombs with yellow, red, purple, and white corollas.

FLORICULTURAL CALENDAR FOR APRIL.

PLANT STOVE.—Still support the requisite degree of heat by fires at night, as the plants will now begin to show their blossoms, which should be encouraged as much as possible at this season. Fresh air, when the weather is favourable, is very necessary, and should always be admitted when required; this will greatly assist their flowering, and cause the new shoots to be strong and healthy. This month is the most proper time to pot such plants as may require it, taking great care to use such compost as is congenial to them, and use plenty of drainage. Any that do not require shifting into larger pots may have the surface soil renewed with fresh compost, which will greatly invigorate them, and also add to their neatness. The same directions respecting watering and cleanliness may be observed, as given last month. Still propagate all kinds of exotics by means of seeds, cuttings, layers, or suckers, according to the nature of the different kinds; insert them in pots and plunge them in hot-beds, which will promote their vegetation and rooting quickly and certainly.

GREENHOUSE.—These plants will now require large admissions of air at all times when the weather is mild, for as most of them will now be shooting freely, they must not be kept too close. The plants must now be looked over to see when water is wanted, and let all the plants be properly supplied therewith, as this is now a very necessary article, particularly when they are in the house; be careful of the succulent kinds. Let no decayed leaves or shoots be allowed to remain, but let such be taken off as soon as perceived; and all shoots that are of a weak straggling growth must be pruned more or less, as appears necessary. Let no weed, moss, or litter, be seen on the tops of the pots and tubs; and if any foulness be contracted on the plants, let it be instantly removed. In arch shrubby exotics of any particular kinds; sow seed in pots, placing them in a hot-bed; sow seeds of orange, lemon, &c. for stocks; also propagate by cuttings, layers otherwise, and if placed in a bark bed in the pine stove or hot bed, they will be greatly facilitated in their rooting.

HERBACEOUS PERENNIALS, should now be divided and replanted; also

biennials, as Sweet williams, &c. should be planted for blooming this season.

CUTTINGS.—If old plants of Salvias, Fuchsias, Petunias, scarlet Geraniums, Verbenas, Heliotropes, &c., &c. were saved through winter, and young plants be required for turning out into open beds in the flower garden, &c., young shoots should now be taken off close to their origin upon the old wood, and be struck in moist heat.

ANNUALS.—Hardy kinds should be sown in the borders, &c. (See Vol. I. p. 43 of the Cabinet, where particular directions are given) Tender kinds should have plenty of air admitted to them, whether sown in pots or upon a slight hot bed. (See Vol. I. page 42, of the Cabinet). In order to have the plants of some particular kinds stiff and healthy, they should be planted off into small pots, boxes, or the open border, or slight hot bed, &c., so as to be fine plants for final planting in May. Many kinds of tender annuals, intended to ornament the greenhouse or stove through summer, will require potting off, or if done before this month, probably re-potting into larger pots.

AURICULAS.—Will bloom this month; they will require protection from wet and mid-day sun. The plants will require a free supply of water; if manure water be occasionally given, it will improve the size of the flowers; care should be taken not to apply it over the plant. When the trusses of flowers are formed if there are more flowers upon each than can conveniently expand, the small and centre ones should be cut out, so as to leave about six.

CAMPANULA PYRAMIDALIS.—Offsets or cuttings should now be taken off and be treated as directed in Vol. 1, p. 48.

CARNATIONS.—If not planted off last month, should now be done. (See Vol. 1, p. 23)

DAHLIAS.—Seedling plants should be potted off, one plant into a small or sixty-sized pot. Shoots, and cuttings from old roots should be taken off, where it is desired to increase the kind, and strike them in moist heat.

CHINA ROSE.—Plants of the tender kinds, as yellow, sweet-scented, &c., should now be placed in heat, in order to cause a production of shoots for striking, so as to increase the kinds when desired. (See Vol 1, p. 48.)

CHINA ROSE (hardy kinds.)—It is now the proper time to bud the varieties of China Roses; do it as soon as the bark will freely rise.

TRIVERANIA COCCINEA.—Roots of this plant should now be potted. (See Vol. 1, p. 177 and 223; articles on the culture. &c., are there given)

PSELAGONIUMS.—Cuttings now struck will produce plants to bloom at the end of summer. (See Vol. 1, p. 88.)

PANIES.—Plants will now be pushing shoots that will be emitting roots. Where it is wished to increase the kinds, it is a very suitable time for doing it, by taking of shoots, and planting them in a good rich soil, shading them for a few days at first.

POLYANTHUSES.—(See Vol. I, pages 23 and 132.)

TIGRIDIA PAVONIA.—The bulbs should now be planted in the open bed; choose a warm and sheltered situation.

ERICAS, (Heaths.)—Cuttings of many of the greenhouse kinds should now be put off. (See Vol. I, p. 48.)

MIGNONETTE.—To bloom from June should now be sown.

ROSE TREES.—When it is desired to have Roses late in the season, let them be pruned this month. (See Article in Vol. I. pages 23 and 206.)

SELF SOWN ANNUALS.—which have stood the winter should be thinned, and where desirable some may be successfully transplanted.

REFERENCE TO PLATE.

The three Dahlias figured this month, have already been announced in our advertising sheets, that we need not add more in this place, than that each kind has been spoken of by competent judges to be equal to the description given of them.

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THE
FLORICULTURAL CABINET,

MAY, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE TULIP COMPOST.

BY MR. JOHN SLATER, ALBION PLACE, LOWER BROUGHTON NEAR MANCHESTER.

MUCH difference of opinion has for a long time existed among Florists as to the best compost requisite to ensure a fine bloom of Tulips. I have consulted almost every work upon Floriculture, and I invariably find that manure is recommended in certain proportions, some of them placed at the bottom of the bed, others three inches below the bulb, and a few one-third mixed with maiden soil. Experience has proved that manure has a great tendency to cause Tulips to sport in color and cause them, as is termed by Florists, to be dirty. Preparations amongst Florists are like physicians prescriptions, not always infallible, for I find some varieties require a much stronger compost than others. I remember about nineteen years ago seeing a bloom of Tulips uncommonly fine in the soil, there was not a particle of manure. The garden having been made out of an old pasture field. Grass sods rotted down and broken small is the best compost that can be used.

My plan is as follows. I get grass sods three inches thick from an old pasture field which appears of a rich quality, and has not been disturbed for a number of years. The price in my neighbourhood is twopence per square yard; but latterly, from the land

being sold for building upon, I have been enabled to get a load for two shillings, and in a particular instance, I have given as much as five shillings. I pile them up in a square pile, and after they are a year old or upwards, I brake them up with a spade as small as I can, and afterwards pass them through a wire riddle with holes one and a half inch diameter, the soil being previously dug out of the bed fifteen inches deep. I put that portion which would not pass through the riddle at the bottom of the bed, and the others on the top of this, to within three inches of the surface of the bed, and upon this I plant my bulbs. This plan has been adopted by several gentlemen I could name, one of whom in 1836 won four, and in 1837, six silver cups in addition to other prizes. I have also experienced the same results, but not being a subscriber to the cups, I have of course only won in the classes. In 1837 at a meeting where were exhibited some of the choicest blooms from the first beds in Lancashire, I won three firsts and two thirds, and a Roi de Siam, which was unquestionably the finest bloom I staged, was stolen, during dinner, before it was judged. The whole of my bloom that year was good, and the flowers very large. As I said before I find this compost not infallible, I of course use the two following :

For flame varieties deficient in colour and breeder Tulips intended for exhibition

- One-fourth old cow dung.
- One-fourth old horse dung.
- One-half maiden soil.

For those which are dirty, that is, too much colour :

- One-third old lime mortar, sifted fine, and
- Two-thirds of maiden soil.

In arranging my roots from my book to plant, I place in the box with a root of a breeder a green coloured paper ; with a dirty flower, a white ; and with one deficient in colour, a blue. I take care to have a large Carnation pot of each compost, and when I find a bulb with a certain coloured paper, I take out the soil nine inches deep, where the bulb is to be planted, and fill it up again with the necessary compost, by so doing, I generally succeed. Roots of feathered flowers deficient in colouring do not require any other compost than the general one, as it is much better to have them too clean, than otherwise. This compost serves me for two years, the riddlings at the bottom of the bed being frequently mixed with the top soil during the summer

months, makes it equally as good, if not better, than it was previously. I take out about three inches deep of the soil, and cover the bulbs with fresh compost.

If these few plain remarks give satisfaction to your readers, I will send you shortly more articles on Florist Flowers, written from personal observation and experience.
(We feel confident they will, and be glad to have the other articles—*Con.*)

ARTICLE II.

ON THE CULTURE OF THE RANUNCULUS

BY J. B. W.

It is not my intention to deprecate the practice of professed gardeners, yet so often have I seen them fail in producing a good blow of this pretty little flower, that I cannot forbear offering the following remarks on the mode of cultivating it. Having a good collection of roots in a dry place, I prepare a bed in an open border and south exposure, merely by adding a little of well rotted dung to the common garden mould in the month of October. In February I turn this over to the depth of six inches, and incorporate the old dung well with it. In March I then plant the roots in rows nine inches asunder, and three inches distant in the rows; as soon as they spring, I give repeatedly copious waterings, which of course are not necessary in wet weather. The want of success in the proper flowering of this root appears to depend greatly on the insufficient supply of moisture in the early part of its growth.

When they are in bloom, I shade a little every day when the weather is very dry and hot, taking care, however, not to weaken the stems by such means. After they are done flowering, and as soon as the leaves are withered, and having beside me a bason full of water, I transfer the roots immediately from the earth to the bason, and then pick the withered stems, leaves, and root-lets from the roots, and having thoroughly washed them with repeated effusions of cold water, I dry them in the shade, and then hang them up in paper bags in the kitchen or other dry place till the planting season returns. By washing the roots clean all eggs of insects are carried away, which would, undoubtedly, whenever the sun poured forth his strength, have become living animals, and committed great ra-

vages on the roots, in many instances annihilating them altogether. Some growers, to obviate this, recommend that potatoes should be planted between the rows, so that they insects may attach themselves to that plant, but it must certainly be more preferable to remove them altogether which is most easily effected by washing their eggs from the roots. It has also been recommended to allow the roots gradually to dry with the earth about them, this they say preserves the eye of the root safe for the succeeding year; this is certainly the easiest method of all others for destroying the roots, because after they have become shrivelled the clay gradually crumbles from them, leaving the eye supported only by so many dry brittle fibres; but washed when newly taken up, the fibres, on drying, cling together and support each other from injury, and although when the season for planting returns, the roots appear very diminutive, still when we look two days after they are planted they are as much swollen as when they were taken up. I always spread the roots while washing them, although by this system the trouble attendant on the culture is a little increased, yet the certainty of a good blow (for I scarcely ever planted a root that it does not blow) more than compensates for all the trouble.

T. B. W. G.

ARTICLE. III.

A FEW OBSERVATIONS UPON SOME OF THE RECENTLY INTRODUCED ANNUALS.

BY META.

THE investigations that have been carried on, during the last few years, in different parts of the globe have added so many new names to our list of annuals, that a selection from them becomes almost puzzling, and a few remarks upon some of the species worthy of cultivation may not be uninteresting to the readers of the Floricultural Cabinet. Those chiefly are noticed that have been figured in the preceding volumes, all of which may be grown successfully, and though to many of your readers, I am aware the remarks will present nothing new, I trust they may offer something useful, especially as a correpondent in the Number for April, has requested information on the subject.

One of the very prettiest additions to our Flower-borders is

the *Gilia tricolor*, well figured in vol. 2., November; this is a hardy annual, and by sowing it two or three times during the year, it becomes almost a perennial bloomer, for it seeds freely, and they spring up where the plant was previously grown, sustaining the cold of a moderate winter, and flowering early in the spring; it requires to be kept in a compact clump to look well; the seeds should be sown very thin, as the plants flourish better than when transplanted singly; height about a foot and a half

Leptosiphon androsace, figured vol 2. December: a dwarf annual, well adapted for being sown in a small bed by itself; the plant is at first very slender and delicate, but when it becomes established it sets out many side branches, and at the end of each, bears a head of flowers variously tinted in shades of lilac, it therefore does not require to be sown thickly, and is, perhaps, better for being transplanted; height not quite one foot.

Nemophila insignis, figured in vol. 2., December; a very elegant plant with bright blue flowers, and light delicate foliage. Though its name might lead us to imagine it to be "a lover of the shade," it delights in a dry sunny situation; it grows about a foot and a half high, its stems are brittle, and unless well secured to sticks; it is soon injured by the wind, but forms a pretty clump if merely suffered to run upon the surface of the soil. Perhaps it is most valuable as an ornament for the greenhouse in spring: two or three plants in each pot tied usually to a slender stick, look extremely well there, expanding its beautiful blossoms without danger from wind or rain, and continuing in bloom for some time

Ipomopsis elegans, figured in vol. 2., February, under the name *Gilia aggregata*, is not yet become a common plant. It is a biennial, sometimes flowering the first year, sometimes requiring a winter's protection before it throws up its flowering stem, which will rise to more than four feet in height, and is, when in bloom, extremely beautiful. When young the *Ipomopsis* is subject to the attacks of the red spider, and then becomes a dangerous inmate of the greenhouse. Though "*Gilia aggregata*," is given as synonym of *Ipomopsis elegans*, it does not seem to be the same plant, with many seedsmen; seeds sown under the former names both last season and this, having produced very different plants from what was wished.

Calendrinia speciosa, a very pretty plant for growing in a mass

or covering the surface of a small bed ; the leaves are succulent, and of a pretty green, and delights in a dry sunny situation. It is a more desirable species than *Calandrinia grandiflora*, figured vol. 2. February, which proves a straggling plant, flowering sparingly in proportion to its foliage, and its blossoms rarely opening more than one at a time on each stem.

Nolana antriplicifolia, figured vol 4., October, may be ranked as a companion to the *Calandrinia speciosa* ; it grows rapidly and luxuriantly in strong soil, sending out its stems in all directions, and soon covering a considerable space. The leaves are succulent, the flowers light blue, rather resembling the *Convolvulus minor*, and like that flower, they close early. The seeds are produced abundantly, so that though they are only introduced into general cultivation about two seasons back, it may soon become a common plant.

Collinsia bicolor, figured vol 3, April. This is a very pretty hardy annual, growing about a foot and an half high, and flowering both abundantly and for a considerable length of time ; two or three plants of it in a pot, are useful for introducing amongst others, in a basket of moss, or ornamental vase upon a lawn : it produces a great quantity of seed, and self sown plants survived the winter of 1836 at Finchinbroke, Huntingdonshire, and flowered most luxuriantly early in the summer of 1837. As it throws out social flower stems, it should be sown very thinly. When grown in a greenhouse, the stems shoot up at first very rapidly and weakly, and require careful tying.

Eutoca viscida, figured vol 4., February. This is a dwarf annual, the foliage rather coarse in appearance, but the flowers which are produced in a cluster at the end of the stem are of a brilliant light blue, and when examined beneath a microscope, their structure is very beautiful. It should be sown in a tolerably large patch to look well, and rather thickly ; height scarcely one foot.

Escholtzia crocea, figured vol. 2., July. A very showy plant, which though when first introduced was considered an annual will flourish two or three successive seasons, and as it sheds a great quantity of seed, it spreads over a border. The roots being like those of a carrot, and growing deep, does not bear transplanting very well, but the seeds should be sown sparingly where they are intended to remain. The colour is rather too glaring to

form a bed of this plant alone, but it looks very well amongst other plants.

Delphinium sinense. This though but a new biennial, is well worth cultivation, its flowers are deep and a most brilliant blue, it has little foliage, but two or three plants of it placed together form a nice clump, and contrast well in a bed with other flowers. Its height is about two feet, it will bloom the first and second years well, but though the plant will continue longer, the flowers are apt to diminish both in number and depth of hue. It grows from seed readily, and will bear transplanting well.

So many excellent directions were given in the first volume of the Floricultural Cabinet, that little need be added here upon the sowing and management of annuals; a succession may be obtained by sowing a few of each kind in a hot bed early in March pricking them into pots, as they obtain sufficient size, and then turning out the ball of soil entire into the borders early in May; sowing once in the open borders in the beginning or middle of April, as situation or season may warrant, and then again the last week in May, or beginning of June.

Many of the half hardy perennials lately introduced, produce seed so freely, as to be treated as annuals, suffered to perish at the end of the season; amongst these the beautiful *Petunia violacea*, deserves the first place. A bed of this plant forms a most elegant ornament to a garden, self-sown plants spring up, when it has bloomed the previous summer, which, when transplanted to different parts of the garden, forms strong bushy plants, covered with flowers during the autumn. The *Petunia nyctaginiflora* will also spring up occasionally in the borders, and the flowers of these seedlings, are much finer than from cuttings of the same season.

META.

ARTICLE IV.

A REPLY TO OBSERVATIONS "ON RAISING TULIPS FROM SEED,"

BY MR. JOHN SLATER, LOWER BROUGHTON, NEAR MANCHESTER.

SOME observations have been addressed to me upon the article on raising Tulips from seed inserted in your April Number of the Cabinet, I very reluctantly reply to them, neither should I

have done so, had my assertions not been disputed. If the writer had tried the experiment of growing his breeders at a distance from home, as directed, or had procured soil of a different nature, even five or six miles distant, he would not have ventured to make the assertions. What I advanced in that article is from experience as well as personal observations made during some years. I will, however, state facts, which are stubborn things. In the year 1834, I planted sixteen named breeders, which came upwards of sixty miles from this place, six of which broke; 1835, twenty-two breeders, three broke and thirteen did not bloom; 1836, one hundred and seventy breeders, part named and part seedlings, twenty-two of which broke, and eighty-six did not bloom; 1837, upwards of seven hundred, as yet I cannot state how many are broke, but I perceive, from the mottled appearance of the foliage, I shall have a round number. I have also a number which were taken up in bloom, a number planted in old mortar and maiden soil, and some in my regular breeder compost. I will state the result as soon as it can be done accurately.

With respect to the observations on planting Tulip seed edgewise, I shall only say that this year I have plainly proved the superiority of the plan over the old system of sowing. I trust I have satisfactorily answered the observations, and would, in conclusion, advise the writer to be more careful for the future in contradicting others without being able to prove them wrong.

ARTICLE V.

ON THE RELATIVE MERITS OF IRON AND WOOD ROOFS. FOR STOVES, GREENHOUSES, &c

(CONTINUED FROM PAGE 72)

HAVING then explained my objections to pipes of too large or too small diameter, I shall in concluding these observations offer a few suggestions relative to the formation of the furnace and the apparatus generally; is a guide to persons who may not have had quite so much practical experience as myself, and among the first that I shall draw the Gardener's attention too, with all hot water apparatuses, for his own convenience and for the benefit of his employer, is, to see that the Mechanist or Apparatus fixer supplies a proper furnace door, which should not be less than one

foot square, for the convenience of cleaning-out, lighting and making up of the fire the last thing at night; for it is impossible for any man to manage a fire properly with a furnace door such as are used to some hot water apparatuses that do not exceed six or eight inches square; but if a good sized furnace door is used, the gardener is enabled in counties, where coals are dear and wood is cheap, to burn logs of wood or the refuse from the pruning of trees, where he only wants a little fire through the day; but of course it must be understood that this description of fuel is not to be depended on in severe weather, nor for the making up fires for the night. Whatever description of fuel is used, however, I have always found it a great saving to gentlemen to have a moderately large furnace door, great attention being paid to its formation, in order to prevent the passage of air through the door between the boiler and the fire, the neglect of which causes a great waste of caloric or heat, as air will not support combustion until its temperature is raised to 800 or 900 degrees of Fahrenheit, therefore a current of cold air admitted between the boiler and fire through the door, has a tendency to counteract the power of the fire; to obviate which double doors should invariably be used, and then if the boiler is so constructed and set as to expose (which is the great secret in the formation of all boilers) a large surface to the action of the fire by means of the construction of the flues round it in such a way as entirely to consume the whole of the caloric or heat before it escapes into the chimney, the greater will be the saving of fuel, and the more powerful and effective the operations of the apparatus altogether. Indeed I have no hesitation in saying if a proper quantity of pipe is used so as to give a sufficient quantity of surface for the command of temperature required in all extremes of weather; and the furnace, boiler, and flues, being so constructed as suggested, the fire might be made up and left without the least risk for six or eight hours on the severest nights. In the formation of the Egg Shaped Boiler my attention was particularly devoted to the construction of a furnace that would obviate the evils complained of in most hot water apparatuses. I mean the great consumption of fuel and the almost constant attention required, all of which arises from badly constructed fire places and boilers; but, then on several other circumstances connected with hot water apparatuses which I think highly necessary to be attended to, particularly where the boilers are formed of series of pipes, varying from half

an inch to two inches in diameter, for in the first place on no account should dirty water be used, as it causes a settlement or accumulation of mud, which in time not only injures the boiler, but lessens its power, by not only preventing the fire from acting immediately on the water, but also because the accumulated deposit impedes the circulation of the fluid by diminishing the calibre of the water way, and ultimately forms a hard incrustation similar to what is seen on the bottom of steam boilers, and it frequently ends by burning a hole in the bottom or other parts of the boiler.

Some times in order to save a little trouble, where hard water is more conveniently obtained than soft or rain water, the boiler is filled with hard water which is as injurious as mud, for in the decomposition of the water, consequent on the process of boiling, earthy particles are deposited at the bottom, but if rain water is used, all this injury is prevented: as, I have on several occasions examined boilers that had been taken down after being in use for ten or more years, and where this important part had been properly attended to, there has scarcely been an appearance of incrustation. . . . Moreover, in all plans of boilers, there should be a small cock so placed as to draw the whole of the water off occasionally, for the purpose of cleaning the boiler, &c., as it is well known that water when heated, not only evolves or gives out its component gases, but by mechanical deposition any matter, held in solution in the water, falls to the bottom, and this causes a sediment on the boiler, but by the use of rain or if convenient, filtered water, all this difficulty is overcome.

There is also another difficulty attending hot water, which if properly attended to in the first place, would not be such a perpetual source of inconvenience, namely, when water has to descend under door ways, &c., or to dip below the bottom of the boiler; I have frequently known in small plans of hot water which are admitted to be good in themselves, prove of no service in the cases described; nay, it has even been found necessary to remove them in consequence of the water not circulating under the paths, and other situations when it was necessary to descend and rise again, all this might have been avoided by giving the flow pipes a proper ascension when leaving the boiler, and by placing the reservoir, or cistern sufficiently high so as to counteract the power of the water in the return pipes: I was sent for last spring to remove an apparatus in a lady's greenhouse at Westerham, in

Kent, which could never be brought to act under the door, and succeeded very much to her satisfaction in causing the water to descend in both flow and return pipes, to more than two feet below the level of the bottom of the boiler, after which it had to rise again to above the level of the top of the boiler. The lady's name I have permission and authority to communicate to any person wishing to inspect the apparatus and being so perfectly satisfied with the working now, she has kindly consented to answer any enquiry. In concluding these few practical instructions or observations on the relative properties of common flues, steam and hot water; I shall merely state, that, during my practice I have always considered hot water a much more congenial heat to plants and all other organized bodies whether belonging to the vegetable or animal kingdom from their close analogy, and the circumstance of its containing less of the noxious gases which not only escape from the surface of the flue, but from all the fissures however the flues may be built, for it is impossible to confine this light and subtle fluid. Moreover, as the temperature of hot water pipes is more equal than a flue at both extremities; and rarely exceeds two-hundred degrees of heat, there is not that exhaustion of the aqueous or humid gases which is so essentially necessary to the very existence, much more to the health and fruitfulness of all plants, whether natives of torid or frigid climates, as nothing can tend more to the injury of plants and to the generating of insects than an acid atmosphere highly charged with unwholesome and extraneous gases, and as strong fires applied for heating hot houses with common flues, dries up all humidity and decomposes those nutritious gasses with which the atmosphere is charged, and which are so beneficial to the growth, the health, and the cleanliness of every description of plant, it is only first to infer that a flue which is continually destroying, by its intensity of dry heat, the very vitals of all plants, namely, the humidity of the air in which they are growing, besides evolving the disagreeable smell so common to flues when hot, which arises from the decomposition of the animal and vegetable particles continually floating in the air, it cannot be so congenial to the vegetable kingdom as a mild, gentle, and regular heat, such as is produced by hot water, which fluid is free from all noxious gases given out from the smoke, soot, lime, and bricks of a common hot house flue.

ARTICLE VI.

ON FLORISTS' CONVERSAZIONI.

BY MR. JOHN SLATER, ALBION PLACE, LOWER BROUGHTON, NEAR MANCHESTER.

THE science of Floriculture has for some years been rapidly progressing through the instrumentality of Floral and Horticultural Exhibitions, but something more is requisite, and I would recommend the formation of district Floral Conversazioni. The artists have their Conversazione, and why not the florists? Much good would arise from these social meetings, and that selfishness inherent in man would be in some measure banished from his bosom. The florists have long felt the want of meetings, where matters relating to Floriculture might be properly discussed, the bustle of an exhibition day affords but little time for such a purpose, as all are actively engaged on such an occasion. I have directed the attention of a few individuals to this subject, and a society of this description is now forming in this district. A number of respectable names ought to be obtained in the first instance as subscribers, that an opportunity might be afforded to reject all such as have not acted honorably in their transactions. This would have a great tendency to prevent those complaints which have been too often made by parties of having been duped and cheated with wrong plants and bulbs.

A library consisting of works upon Floriculture and Horticulture ought also to be attached, to afford the members the fullest information upon these subjects. Donations of books and money would be necessary to carry out this plan, and no doubt the wealthier florists would come forward handsomely to assist in providing them. The subscription must be in proportion to the number of subscribers, taking into account the general circumstances of the parties. This fund should be applied to the purchasing of all magazines and works, connected with the objects of the society. The members should be allowed to take home to read any volume or number of a periodical for a certain number of days. The meeting to take place once a month, when a given subject shall be discussed, and the President to name the subject proposed to be discussed the following monthly meeting. No doubt advantage would be taken of the season, to bring under notice those flowers, &c. then in perfection, and by this means much valuable information might be obtained. Having thus given

a brief outline, some of your readers, who, may wish to establish a society of this description, I doubt not will be enabled to fill it up.

ARTICLE VII.

ON RAISING RANUNCULUSS' FROM SEED,

BY H. G. S.

SHOULD you think the following worthy a place in your Florits' Magazine, I should feel obliged by your inserting it in an early number.

Ranunculus Seed is to be procured from semi-double flowers ; care should therefore be taken to save it from such as are possessed of good properties, viz, such as have full strong stems, a considerable number of large well-formed petals, and rich good colours, chiefly preferring the darker, but not to the exclusion of the lighter coloured when their properties answer the foregoing description. The seed should remain on the plant till it has lost its verdure, and becomes brown and dry, it may then be cut off, and be spread upon paper, in a dry room, exposed to the sun, that every degree of humidity may be exhaled from it, in which state it should be put into a bag, and preserved in a dry warm room till the time of sowing, otherwise it will be in danger of contracting a dampness, which will soon produce a mouldness, that will infallibly destroy it. January is the proper time to sow the seed, and in order to prepare it, it must be separated from the stalks to which it is connected, in the following manner, viz : in the first place it should be taken out of the bag and spread thin upon paper, tea tray, &c. and placed before a moderate fire, till it is just warm, and no more ; the seed will then easily scrape off, by means of a penknife, but great care must be taken to avoid scraping it off in lumps, or suffering any pieces of the stalk, dried petals of the flower, or other extraneous matter to be mixed with it, which would create a mouldness when sown, of very destructive consequence ; when the seed is scraped in a proper manner it will have the appearance of clean coarse bran, with a little brown or purple speck in the centre of each cuticle, which is the kernel.

When the seed is thus prepared, it should be sown on a shallow frame provided with glasses, similar to those made use of for

cucumbers and melons; the soil should have been previously taken out, three feet deep, and spread thin upon the ground till it has been perfectly frozen throughout, in order to destroy any vermin it may have contained. When the pit is filled up again with the frozen lumps of earth, it should remain till the whole mass has thawed, and subsided to its pristine bulk, or nearly so; its surface should then be made perfectly smooth and even, and the seed sown upon it with the utmost regularity, in such a quantity as nearly to cover it; the glasses should be placed over it immediately, and the frame kept closely covered with them, for two or three days, till the seed begins to swell and soften; a little light earth should then be sifted upon, through a fine sieve, but not sufficient to cover it, this should be repeated once or twice a week, till the greater part of the seed disappears: it is proper to remark that such seeds as happen to be covered deeper than the thickness of a half-crown piece, will never vegetate, and must, of course, inevitably perish. It is necessary that the seed be kept moderately moist by gentle watering with soft water that has been exposed to the sun, but too much moisture is nevertheless injurious.

About the time that the plants begin to appear, it is requisite to stir the surface of the earth with a pin, just sufficiently to admit air, and give liberty to the young plants to pass easily through; this operation should be very carefully performed to prevent breaking off the fibres, or raising and leaving any of the plants out of the earth, because one hour's sun upon such would certainly destroy them.

After the plants are all up, and their two interior leaves appear, more air must be given, by having hurdles or lattice work, substituted for the glasses; waterings must be regularly continued in the manner before described, when the long continuance of dry weather renders it necessary; but fine warm showers of rain are always preferable when they happen in due time.

This kind of management is to be continued till the roots are matured, and fit to take up, which is known by the foliage becoming brown, dry, and nearly consumed. The roots are to be dried and preserved in the usual way, and to be planted the same time as large ones in the autumn, the greater part, or such as have two or more claws, will blow in tolerable perfection the following summer.

J. G. S.

ARTICLE VII.

REMARKS ON THE SHRUBBERY.

BY REV. HENRY HILL, A. M.

(Continued from page 96.)

THE furze bush also is one of the greatest enliveners of the shrubbery at this season, particularly when it is allowed to exhibit its golden blossoms at the foot of some dark foliaged evergreen. Among the trees of the back ground, the wych elm, the alder, the willow, and the ozier, flower in March, at the same period, the leafless branches of the almond are covered with blushing petals; whilst the sloe and plum are most conspicuously beautiful with snowy blossoms, which are enhanced by contrast, if made to rise from the midst of dwarf evergreens, and shaded by others of taller growth. In a later season, the fruit is no less acceptable, and scarcely less ornamental.

In the early months, also, the mezereon, the dwarf almond, and the pyrus japonica, give, life to the foreground, when planted in little groups of three or four of each together.

At this season of the year too, much of the beauty of the shrubbery depends on covering the banks, and feet of trees and shrubs with considerable patches of the earliest flowers.

In February the snowdrop has for its cotemporary the crocus, which is also very ornamental, when planted in such quantity as to cover a large space. When scattered singly, or arranged in formal bodies, its effect is entirely lost; and like a single candle, in a cathedral, it seems but to cast an additional gloom over the scene. The banks should, therefore, be made to glow with the flaming petals of the yellow crocus, whilst other spots should shine with the silvery tints of the purple variety. Clumps of the winter hellebore, or aconite, should also be formed on a large scale, as their yellow cups, set, as it were, in green saucers, have a fine effect in February. The anemone hepatica is also as beautiful as hardy; and as there are varieties with red, blue, and white flowers, it is a plant that should be cultivated to a greater extent than is usual, as an embellishment to this season. The wild wood anemone, whose white and yellow flowers so enliven the earth at the same time, may be planted under the trees; and the primrose, that so sweetly "peeps beneath the thorn," when sprinkled abundantly between the shrubs and trees, gives an additional plea-

sure to the eye. The story of Prosperine may be recalled to our minds, by the view of gay plantations of early daffodils, that shake their golden heads to the winds of February and March.

Let us not forget the common field daisy, large patches of which are very ornamental, when planted amongst shrubs; and the double crimson white, and variegated kinds, deserve a conspicuous situation for their beauty, as well as for their early flowering.

As the lawn forms a principal feature in every pleasure-ground, this should also have an undulating surface, where the extent of ground will admit of it: and it must be a small space indeed that will not allow of a bank being thrown up. The form of this part should neither be too regular, nor of a studied irregularity. It should appear in different places to retire into the plantation, so as to give the idea of greater extent, especially when viewed from the windows of the villa.

Where the coach road is carried through the lawn, (which however, if possible, should be avoided) it should be occasionally obscured by irregular clumps of shrubs, such as roses mixt with dwarf evergreens. The private walks must also be of breadth sufficient to admit three persons abreast, however small the grounds may be; for plants are sure to be injured where the walks are narrow. In extensive shrubberies, each walk should lead to some particular object: to the orchard, kitchen garden, botanical borders, greenhouse, dairy, ice-house, mushroom-hut, aviary, poultry yard, and stables. The intention of the plantation should seem to be, to conduct the walker in the most agreeable manner to each outlet and building of utility or pleasure.

Where a lawn is of sufficient extent for detached trees, the apple may be admitted with great effect, the blossom being amongst the most beautiful that open in spring. Such as produce a red fruit in autumn are more ornamental than most other trees.

To those who are so devoted to fashion, as not to venture to treat their lungs with air, unmixed with smoke, till the crowds that swarmed at court have fixed their departure for rural scenes and a pure atmosphere, like swallows and other birds of passage; to such, the gaiety of the autumnal shrubbery is of most importance. It remains to say, how the last expiring ray of beauty may be thrown over the pleasure-ground.

(To be continued.)

REVIEW.

A Practical Treatise on Warming Buildings by Hot Water; and an inquiry into the Laws of radiant and conducted Heat. To which are added, Remarks on Ventilation, and on the various methods of distributing artificial Heat, and their effect on animal and vegetable Physiology. By CHARLES HOOD, F. R. A. S. Illustrated by numerous Wood-cuts; 8vo., p. p. 216. London: Whittaker & Co., Ave Maria Lane, 1837.

This excellent Publication contains a very judicious proposition of practical, and theoretical observations on the matters treated upon, and which are detailed in a very scientific and explicit manner. Every person who is at all interested in heating Dwellings, Hot-houses, Greenhouses, &c., ought to possess the Book, which cannot fail to prove extremely useful. We very strongly recommend the Work to our readers. The author observes in the preface that

“Frequent applications having been made to me, by persons who were aware that the subject had engaged my attention, to recommend to them a practical treatise on its principles and application, the utility of such a work in forwarding the progress of the discovery, became obvious. And finding that nothing relating to the invention had hitherto been published, except a few scattered and unimportant notices, it appeared probable that the materials I possessed might form a treatise which would be useful, not only in showing the practical application of the invention, but also in explaining the scientific principles upon which the various effects depend. The following pages are therefore offered, in the hope of supplying the desideratum.

“The different parts of the subject have been arranged, as far as possible, under distinct heads. The primary object has been to explain the principles, in a manner perfectly clear and intelligible to such as are unacquainted with those branches of physical science on which the philosophy of the invention is based: and, while endeavouring to remove the erroneous notion, which is entertained by some persons, that a certain degree of danger is inseparable from the plan, to show that danger can occur only through a misapplication of the principles.

“In order to pursue the inquiry in a popular manner, all abstruse calculations and scientific technicalities have been, as much as possible, avoided; and the most simple definitions the subject would admit of, have been adopted, as far as is consistent with perspicuity.

“The Rules, Calculations, and Tables, which are given in the body of the work, have, nearly all, been constructed expressly with reference to the present inquiry; and the tables given at the end of the volume are compiled from the best authorities: the whole comprising, it is hoped, all the information which the subject requires.

The Contents are

CHAPTER I.—On the cause of the circulation of the water, and its consequences.—Chapter II. On the application of the principles.—Chapter III. On the proportionate sizes of various parts of the apparatus.—Chapter IV. On permanence of temperature, depending on the form and size of the boiler and pipes.—Chapter V. On the size and construction of furnaces.—Chapter VI. On the laws of heat.—Chapter VII. Experiments on cooling.—Chapter

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VIII. On the application of the laws of heat, to determine the proper size of an apparatus for heating any description of building.—Chapter IX. On peculiar modifications of the hot-water apparatus.—Chapter X. General application and summary.—Chapter XI. On ventilation.—Chapter XII. On the various methods used for distributing artificial heat.—Tables, &c.

To show the nature of the work we extract the following.

“In making an estimate of the quantity of glass contained in any particular building, the extent of surface of the wood work must be carefully excluded from the calculation. This is particularly necessary in buildings used for horticultural purposes, where from the smallness of the panes, the wood-work occupies a considerable space. The readiest way of calculating, and sufficiently accurate for ordinary purposes, is to take the square surface of the sashes, and then deduct one-eighth of the amount for the wood-work. In the generality of horticultural buildings, the wood-work fully amounts to this quantity: but in some expensively finished conservatories, &c., it is considerably less, and therefore the allowance must be made accordingly. When the frames and sashes are made of metal, the radiation of heat will be quite as much from the frame as from the glass; therefore, in such cases, no deduction must be made.

“Some loss of heat will likewise arise from imperfect fitting of doors and windows. In these cases the circumstances vary very considerably; but in the majority of instances, no allowance is necessary for these sources of loss of heat, the external temperature of the air having been reckoned sufficiently low to supersede the necessity of any farther deduction.

“From the preceding calculations, the following corollary may be drawn:—the quantity of air to be warmed per minute, in habitable rooms and public buildings, must be $3\frac{1}{2}$ cubic feet for each person the room contains, and $1\frac{1}{2}$ cubic feet for each square foot of glass; and for conservatories, forcing houses, and other buildings of this description, the quantity of air to be warmed per minute, must be $1\frac{1}{2}$ cubic feet for each square foot of glass which the building contains. When the quantity of air required to be heated, has been thus ascertained, the length of pipe which will be necessary, may be found by the following

“RULE:—Multiply 125 by the difference between the temperature at which the room is purposed to be kept, when at its maximum, and the temperature of the external air; and divide this product by the difference between the temperature of the pipes, and the proposed temperature of the room: then, the quotient thus obtained, when multiplied by the number of cubic feet of air to be warmed per minute, and this product divided by 222, will give the number of feet in length, of pipe 4 inches diameter, which will produce the desired effect.”

(To be Continued.)

The Fruit, Flower, and Kitchen Garden, being the article, “HORTICULTURE,” of the seventh edition of the Encyclopædia Britannica. By PATRICK NEILL, L. L. D., F. R. S. E. Secretary to the Caledonian Horticultural Society. Edinburgh: Adam & Charles Black, North Bridge, Booksellers to Her Majesty for Scotland; 12mo. p. p. 336.

This work reached us so late in the month, that we can only notice its publication, for the present, we will remark further in our next. We would just observe, however, that the work issuing from so eminent an Horticulturist as the author, is a sufficient recommendation of it to every person fond of gardening.

PART III.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. AMPHICOME ARGUTA,
- Finely-cut leaved.*
- [Bot. Reg. 19,

BIGONIACEÆ, DIDYNAMIA ANGIOSPERMIA.

This very handsome flowering herbaceous perennial plant, was discovered on the Himalaya Mountains, at an elevation of six or eight thousand feet. Seeds of it were sent to the London Horticultural Society, in whose garden a plant bloomed last August. It grows about a foot high, of a neat appearance, producing its beautiful blossoms abundantly, in a terminal raceme; each flower is near two inches long, funnel-shaped, the mouth divided into five sections, and of pretty rose colour, with a few streaks of white, and the bottom part of the tube is yellow. It blooms from June to the end of summer. It is a very desirable plant for the flower garden; it is found to require a dry situation, or will be very liable to perish in winter, it would be best to protect it in winter by a hand glass, or something of that kind. The plant can be propagated either by seeds or cuttings. Amphicome, from amphi, around; and kome, hair; alluding to the structure of the seeds.

2. CYMBIDIUM TRISTE,
- Lurid flowered.*
- [Bot. Mag. 3643.

ORCHIDACEÆ, GYNANDRIA MONANDRIA. SYNONYM, EPIDENDRUM TRISTE.

A native of Nepal, Ceylon, and Japan. It has bloomed in the collection of Orchidæe belonging to John Horsfield, Esq., Everton, near Liverpool. The flowers are produced on a short sessile raceme. The stem rising about eight or ten inches; sepals of a purplish-yellow, lip large, and of a rich deep purple, column mottled with rosy-purple. Each blossom is about an inch and a half across.

3. LOASA LATERITA,
- Red flowered.*

LOASACEÆ, POLYADELPHIA POLYANDRIA.

Mr. Tweedie sent seeds of this pretty flowering species from Tucuman. It is a fine climbing kind, producing numerous flowers of an orange red colour. It blooms freely in the open air during summer, and when grown in a greenhouse or conservatory nearly all the year. It is easily raised by seeds or cuttings, and delights in a sandy loam. It is an ornamental plant for a Verandah or trellis in the flower garden.

4. MAMMILLARIA FLORIBUNDA,
- Copious flowering.*
- [Bot. Mag. 3647.

CACTEÆ, ICOSANDRIA MONOGYNIA.

This pretty flowering species was imported from Chili, by Mr. Hitchen, and is now in the rich collection of Messrs. Mackie, Norwich. The flowers are produced at the crown of the plant, most abundantly. They are of a fine rosy pink colour.

5. MUCUNA PRURIENS, *West Indian Cow-itch Plant.* (Bot Reg. 18.

FABACEÆ, DIADELPHIA DECANDRIA.

In the West Indies the plant grows in the waste lands, fences, river courses, &c. Its long twining stems rapidly takes hold of every thing within its reach, producing its numerous long racemes of fine purple flowers. In the plant stove of F. Perkins, Esq., Shipstead Place, it bloomed in 1836; each raceme of flowers being near a foot long. The hairs upon the plant are so pungent as to pierce the skin, and cause a violent pain, and intolerable itching. *Mucuna*, is its Brazilian name.

6. PASSIFLORA ONYCHINA, *Lieut. Sullivan's Passion Flower.*

PASSIFLORACEÆ. MONADELPHIA PENTANDRIA.

A native of Rio de Janeiro, and introduced into this country by B. J. Sullivan, Esq., and was first grown in this country in the fine collection of Sir Charles Lemon, Bart. M. P., Carcleu, Cornwall. It is a very beautiful hot house species, flowering profusely; each flower is about two inches and a half across, of a fine light blue, tinged with rose, and the centre of a carmine red. It deserves a place in every collection.

7. PENTSTEMON DIFFUSUS, *Spreading pentstemon.*

SCROPHULARINÆ, DEDYNAMIA ANGIOSPERMIA.

A hardy herbaceous perennial species, growing two or three feet high, and spreading proportionately. The plant was discovered by the late Mr. Douglas, near the mouth of the Columbia River. The flowers are produced in large panicles, of a bright purple colour. Each flower is about an inch long. It is a very pretty species.

NEW OR RARE PLANTS NOTICED

AT MESSRS. LODDIGES'S, HACKNEY NURSERY.

ACACIA VIRGATA. This neat and pretty flowering species we have seen in several collections; very fine plants at Messrs. Loddiges's, Hackney Nursery. The plant is of a much neater habit than *Acacia armata*. The flowers are produced in profusion, of a deep yellow, and very fragrant. It merits a situation in every greenhouse or conservatory. It is sold very cheap.

ACACIA HYBRIDA. This kind appears to be an hybrid, between *A armata* and *A angustifolia*. It is a very neat, erect growing kind, flowering freely, the blossoms are of a beautiful yellow; Messrs. Loddiges's have a good stock of plants, at a low price.

EPACRIS'S. Of this most beautiful flowering genus, we saw the following handsome kinds: viz. *E campanulata alba*, *E campanulata rubra*, *E nivalis*, each of which are very handsome, blooming so profusely, and at the early part of the season, they are most desirable ornaments for the greenhouse or conservatory. Plants may be had cheap.

FACHRYPODIUM TUBEROSUM. Messrs. Loddiges's have this beautiful blooming plant. It has the appearance of an *Euphorbia*. The flowers however differ, they much resemble the *Gloxinias*, but are a trifle less. Each flower is somewhat less than *G superba*, of a beautiful flesh colour outside, but of a dark rose within. It would flourish well in a warmish greenhouse.

EUPHORBIA SPLENDENS, var. **NOVCE**. The original beautiful flowering species was procured by the Duke of Devonshire. The plant now under consideration appears to be an hybrid. The blossoms are of a pretty rosy crimson, more than half an inch across, and of a lighter colour than the flowers of the original species.

EUPHORBIA JACQUINIFLORA. A very beautiful scarlet flowering species, very ornamental for the plant stove. Both the above are plentiful at Messrs. Loddiges's.

SCOTTIA DENTATA. A neat flowering greenhouse shrub. The flowers are of the pea form, of buff colour, edged with carmine, produced in profusion. The plant is a very neat growing one, having pretty cordate leaves.

BORONIA ALATA. A very handsome growing plant, with striking foliage. The flowers are near half an inch across, of a pale rose colour. It is an ornamental plant for the greenhouse.

HOVEA LONGIFOLIA. A very pretty greenhouse plant, flowering very freely. The blossoms are of a rosy purple colour.

HOVEA NOVCE SPEC. A new species with flesh coloured flowers.

HOVEA ELLIPTICA. This is a very pretty flowering species. The blossoms are very striking. The wings are of a pale blue, whilst the keel is of a dark violet, the contrast being beautiful.

HOVEA PURPUREA. In growth it much resembles the above species, the flowers are of a purple colour.

LILIUM SPECIOSUM, var. **LANCIFOLIUM**. A plant of this fine flowering kind is throwing up a flowering stem. There are two other new kinds which appear likely to bloom during summer, viz. *L. roseum*, and *L. lancifolium punctatum*. These new Lilies are highly ornamental plants for the greenhouse.

DENDROBIUM NOBILE. This splendid flowering stove Orchideous plant has been profusely in bloom, the blossoms far exceed in beauty any other species. In fact, no other stove orchideæ that we have seen is equal to it in beauty. Each flower is about three inches across. The white being pure, and some portions of the flower of a rosy carmine. The inner part of the labellum is of a deep violet crimson, producing a most striking effect. The plant deserves a place in every collection.

ACACIA VIRGATA. A very neat growing greenhouse species, producing a profusion of deep yellow blossoms, which are very fragrant. It deserves a place in every collection; blooming so early and freely, in addition to being sweet, alike recommend it.

DOASMA CAPITATA. A beautiful greenhouse plant, forming a neat bush, and blooming most profusely. The flowers are of a bluish purple, it is as hardy as a Myrtle.

CAMELLIAS. The show was most brilliant, and some of the kinds are grown to large bushes, ten or twelve feet high, and literally loaded with flowers. To walk amongst them is like going through a forest of Camellias. It would amply repay a visit to view them. We shall remark on various kinds in our next.

AT Mr. **LOWES**, Clapton Nursery.—**RUPELLIA AZUREA**. A new and handsome species, with flowers of a fine blue.

GARDOQUIA MULTIFLORA. A new and handsome species, the flowers are of a fine rosy scarlet, and produced very abundantly. It will be very ornamental for the greenhouse.

GREVILLIA ROBUSTA. A greenhouse plant with very beautiful foliage. It was not in bloom.

PART II.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON *GLYCINE HARRISONIA*.—M. E. L. will thank Mr. Harrison to inform her, through the Floricultural Cabinet, when, where, and at what price, plants of the *Glycine Harrisonia* may be procured; likewise how they could be forwarded, and if any particular care is requisite in their management.

[The plant can be supplied by us from Downham Nursery, 7s. 6d. each. It is of the easiest culture, vigorous in growth, and a profuse bloomer. —CONDUCTOR.]

ON A COMPOST FOR THE *AURICULA*.—Having long admired the candour and intelligence of your "Cabinet," and the facility it gives to inquiry, and clearing up of doubts on floricultural subjects; I take the liberty of availing myself of this latter characteristic in the present instance.

In a compost I am forming for *Auriculae*, I have saturated layer after layer with the urine of horses, and then keeping it under cover, the fluid parts evaporate, leaving urea, phosphate of lime, and other salts contained in the urine, intermixed with the compost. Do you not think this will greatly increase the fertilizing properties of the soil? Is not inspissated urine or urine evaporated until it becomes glutinous, a remarkably active manure? The pondrette of the French contains a considerable ratio of this; do you think it likely to injure my plants, after it has been thoroughly incorporated with the soil? By inserting these queries as early as possible, and some correspondent favouring me with an answer will greatly oblige a

CONSTANT READER.

ANSWERS.

ON THE *FUCHSIA*.—Reply to an Amateur, resident at Camberwell.—I beg to state that I have cultivated that beautiful and graceful plant, the *Fuchsia*, mentioned in his query, for above three years, and have now a plant not more than two years old, 5 feet in height, and as many in circumference. My opinion is, that putting the plants in-doors of an evening, is the cause of the buds dropping off, as I always leave mine out night and day, as soon as the frosts are over; in the next place, it is probably for want of water, when coming into bloom, they should be plentifully supplied, at least twice in four and twenty hours: and a pan always kept under them. I have no doubt, if your correspondent will adopt this plan, he will find himself rewarded, by a splendid show of these delightful flowers.

Bayswater.

W. M.

ON THE *WISTERIA SINENSIS*.—In answer to the query of "A Subscriber, contained in the last number of the Floricultural Cabinet, I may, perhaps, be able to give him some little information on the flowering of the *Westeria Sinensis*, which at first disappointed me as it appears to have done the Enquirer. When I obtained my plant six years ago, having seen it in bloom in the South of England, I imagined the shelter of the greenhouse might be necessary for its flowering and accordingly placed it there, where it soon covered the whole of the back with its luxuriant foliage, but never showed one flower. The following spring it was placed in a full South aspect against the garden wall in the open air, but still failed to flower; when by the advice of a person who had seen the plant elsewhere, I had it dressed

and cut in the same manner as a vine, leaving only one or two eyes of the new wood. The first season it flowered very sparingly, but last spring, at this time, it was covered with a profusion of blossoms, even before the leaves were fully expanded; and it flowered a second time in the autumn. The present unusually cold season appears to have retarded it, but it gives promise of many flowers. It is merely planted in common garden loam, and suffered to remain unprotected during the winter, but as soon as it shows signs of returning vegetation, a wollen net is placed over it every evening to guard it during the frequent night frosts, and is not removed until the sun has some power in the morning.

H. F.

FLORICULTURAL CALENDAR FOR MAY.

PLANT STOVE.—Very little fire-heat will now be required, only applying it in cold weather. The plants will progressively require an increase of air and water. If any want an increase of pot-room, it should be attended to as early as possible; otherwise, if not watered frequently, the foliage or flowers will be liable to suffer, turn brown, or fall off the plant. Keep the plants free from decayed leaves, moss, &c. Frequently stir the surface of the soil. When any casual irregularities in form occur, prune or tie the shoots as required. It is a good time for propagating by cuttings, suckers, seeds, &c. placing them in moist heat.

TENDER OR STOVE ANNUALS.—When it is desired to have some plants to bloom late in autumn, as Balsams, Cockscombs, Browallia, &c., seeds should now be sown, and the plants potted off into small sized pots, as soon as they are large enough, using a rich soil.

GREENHOUSE.—During the early part of May, a few frosty nights generally occur; in consequence of which, it is advisable not to take out the general stock of plants before the middle of the month, or even in cold situations, before the 25th. Whilst the plants, however, remain in the greenhouse, let them have all the air that can be given, during the day, and at nights if no appearance of frost. Particular attention will now be required to afford an ample supply of water to free-growing kinds of plants. Frequently syringe them over the tops at evening, just before sun set. If any of the plants be attacked with green fly, or any other similar insects, apply a sprinkling of tobacco water, diluted with water, by adding to one quart of the liquid five of water; in applying which to the plants, syringe them at the under as well as upper surface of the leaves: a repetition will rarely be required. This mode of destroying the insects is far preferable to fumigation, no injury being sustained by it, even if applied in a pure state. The liquid can be obtained of tobacconists at 10d. or 1s. per gallon. Inarching Orange or Lemon trees may still be performed. It is a good time for increasing plants by cuttings, striking in moist heat. Greenhouse annuals—as Salpiglossias, Globe Amaranthuses, Balsams, &c.—should be encouraged by a little warmth, and shifted into larger pots, early in the month; so that the plants may make a show, to succeed the removal of the general collection of greenhouse plants. Cuttings or suckers of Chrysanthemums should now be taken off, if not done before. *Triverania coccinea* plants should be potted singly into a light rich soil and be forwarded in the stove, and repotted as they advance in growth, not too much at a time, but as root room appears necessary. *Lobelias* for the greenhouse should be similarly treated, as to potting, &c.

FLOWER GARDEN.—Continue to protect beds of Hyacinths, Tulips, &c. Carnations in pots should be encouraged by manure water, &c., in order to grow them vigorously: care in striking them will be required. By the middle of the month, half-hardy annuals—as China Asters, Marigolds, &c.—may be planted out in the open borders. Some of the best kinds may be potted, as done to the more tender sorts. Many kinds of greenhouse plants

—as *Petunias*, *Salpiglossias*, *Salvias*, *Fuchsias*, *Heliotropes*, &c.—should now be planted out in the open border. Dahlias, that have been forwarded in pots, frames, &c., may be planted out towards the end of the month. Seedlings may be pricked out, in a warm situation, having a deep, fresh, rich soil. When Stocks, Mignonette, China Asters, &c. are wished to bloom late in the year, seeds may now be sown, either under a frame or on a warm border. Slips of Double Wallflowers should now be put in, under a hand-glass. Seeds of biennials—as Sweet Williams, Scabious, Campions, &c.—should now be sown. Tuberoses, for late flowering, should now be planted, either in pots or warm borders. Offsets of *Campanula pyramidalis*, should be planted in rich soil, and placed in the greenhouse. Repotting must be continued till they cease to grow, by this means the plants will reach eight feet high, and be very branching.

REFERENCE TO PLATE.

CAMELLIA JAPONICA, var. *MARCHIONESS OF EXETER*. This very superior variety was raised by James Priaula, Esq., Monteville House, Guernsey. The seed was procured from the variety Middlemists. The plant combines the vigour of that variety, with the very valuable property of a most profuse bloomer. Mr. Priaula, favoured us with a bloom, and having since looked through all the collections in and about London, we have not seen one equal to it. Its beautiful colour, extraordinary size, and its free blooming property, alike unite to render it unrivalled in its class.

TROPEOLUM JARRATTI. The flowers of this handsome species, have a resemblance to *T. tricolorum*, but on examination it will soon be perceived that there is a very great distinction. The flowers of the present species are nearly twice the size, of a much more brilliant colour, and having a small portion of yellow on the outside, the two upper petals are finely streaked with brown. The plant has been introduced into this country by Messrs. Youell, Nurserymen, Yarmouth, having had it sent them from Santiago. The plant has been found to flourish in a very cool Greenhouse, and there flowering most profusely. It is very probable that it will flourish and bloom abundantly during summer, in the open border, as early in spring as the weather will permit. It would certainly be a fine acquisition to every greenhouse, conservatory or flower garden, as it grows very vigorously. Messrs. Youell, we are informed, imported a considerable number of *Tropæolum* bulbs, but only two kinds have yet bloomed, viz., the present species, and *T. brachyceras*, it is expected other beautiful kinds will be found amongst the lot. The specific title was given by Messrs. Youell, in compliment to a distinguished Horticulturist, John Jarrat, Esq., Camerton House, near Bath.

TROPEOLUM TUBEROSUM. This very showy species was sent to the Glasgow Botanic Garden, by the late Mr. Drummond, from the Texas. We saw fine plants of it in bloom, grown in the open border during last summer and autumn, at the Epsom Nursery. We were informed that it does not flourish if kept in a pot, but when pushed on a little in spring, as done with Dahlias, and like them be planted out in the open air, the plant grows so vigorously, that with a number of branches stuck in the ground so as to form a bush, we saw plants overspreading the branches, so as to completely hide them, being four or five feet high, and more than that in diameter. The dense mass of foliage, forming a handsome bush. The flowers are produced upon long footstalks, which protrude several inches above the foliage, exhibiting them to view in a striking manner.

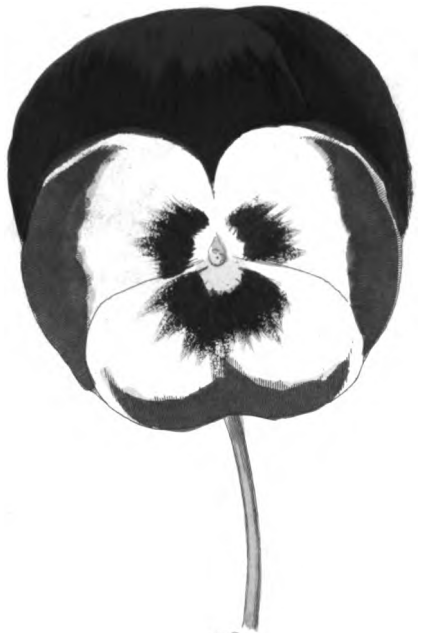
The plant is of easy culture, being increased very easily by cuttings, or tubers which are produced freely. The tubers are fit to eat, having the flavour of a superior potatoe, but are watery.

They require to be treated as the Dahlia, by taking up the tubers at the end of summer, and preserving them during winter; also in the spring and summer treatment.

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THE
FLORICULTURAL CABINET,

JUNE, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

MODE OF OBTAINING DWARF COCKSCOMBS FROM TALL
GROWING VARIETIES.

BY WILLIAM WHEATLEY, FLOWER GARDENER TO JOHN WILLIAM SPICER, ESQ.
ESHER PLACE, SURREY.

EARLY in the month of March the seeds were sown, and placed in a warm frame; as soon as the plants began to show flower, the best were selected of various shades of colour, and pricked out into large pots, from whom the best again were made choice of, and potted off for flowering, the remainder were left in the pots, until they attained the height of about twelve inches. These by way of experiment, were cut off about two inches under the crests, which were at that time about four inches in length, and potted off into 60's. In the course of a fortnight they were well rooted, and in about a fortnight after they were shifted into 48's; three weeks after this it became necessary to give them another shifting, when they were finally put into 32's. During the above process the pots were plunged in leaf mould up to the rim in a warm frame, where they remained till the end of July. The average length of the crests measured twenty-four inches, and five inches across over the disk, and the height of the plants when fully grown was about five inches above the

pot. The compost they were grown in consisted of one half of good loam and equal parts of leaf mould and rotten dung well mixed up together.

To the experienced Floriculturist the above practice may not be new, but to many readers of the Cabinet, it may claim an interest, and as such I send it for insertion in your widely extended and useful publication.

Esher Place, May, 1838.

W. WHEATLEY.

ARTICLE II.

ON LAYING CARNATIONS.

BY POMONA.

As THE season for laying Carnations is fast approaching, if you think it worth your while to publish in the Cabinet the plan I adopt for that purpose, it is at your service. Laying in many cases are indispensable for the continuation of the sorts, for if a plant sends up but only one stem without any side shoot for laying and be allowed to blow, it will likely die. If this happen to valuable kinds, the flower bud should be nipt off, so as to cause the plant to branch.

It is said by an eminent florist that common gardeners are great bunglers in laying, and that there is not one in ten whose assistance he would accept in a case of emergency, that he would rather trust to an amateur, a cobbler, a weaver, or a barber, who had any sort of practice with their own flowers; but how far this statement is correct I will leave it to others to judge for themselves.

The best time to lay Carnations, is when the plants are in full bloom, which generally happens about the middle or towards the end of July or the beginning of August, according as the season is more or less forward; whenever this mode was adopted I have invariably found that they were more certain of striking than at any other season of the year.

Persons who are particularly desirous of preserving the blooms, in the greatest perfection, defer laying till the flowers decline, the blooms being considerably impaired by the operation, more especially if the weather is dry and at an early period of blooming. The advantages which is derived from early laying is to

obtain plants that are strong and healthy before the cold weather commences; I consider the best time to be from the 20th of July to the 20th of August, when they will have time enough to root strongly before the winter begins.

The pegs which I select for laying is fern, (but others use wood or bone) each five or six inches long, with a short hook at the top. Fern pegs, which in most places are easily procured, are, in my opinion to be preferred, because they are naturally formed for the purpose; they retain a sufficient degree of strength to hold the layers securely down till they have formed root, and will decay when no longer needful.

The day before I begin the operation of laying my plants, I water them freely, taking great care to pick off any part that is decayed, or likely to obstruct their rooting; and when they produce too many side shoots, it will be better to take only two or three layers, if the sort is of value, reserving the rest for pipings, because many layers draw too much nourishment from the root of the plant. Supposing the layer selected to have four or five joints, the lower leaves must all be cut off, or stripped close to the stem, till within two or three joints of the end or extremity of the layer.

The practice which I pursue is to cut off all the leaves with a knife or a pair of scissors, so as to leave them only an inch, or an inch and a half in length, from the joint whence they proceed according to the strength and substance of the layer; but it is questioned by some whether it would not tend to strengthen the new plant about to be formed, were the ends of the leaves left entire.

All the layers on one plant must be thus dressed or prepared before proceeding farther; and when the layers are ready, the bits of leaves must be cleared away from the surface of the soil, which ought to be stirred about an inch in depth, and fresh mould, rich and light, but not too fine in the grain added, to the depth of an inch or two. I find that the old Carnation compost used last year answers very well for this purpose, and ought to be kept for the occasion. I next take a very sharp, smooth-edged pen-knife, with a small thin blade, holding the layer between the thumb and fingers of the left hand a little bent upwards, and introduce the knife on that side of the layer next the ground in a sloping direction upwards, commencing about a quarter of an inch below the second or third joint from the extremity, and con-

tinuing to cut through the middle of that joint, and one half or three quarters of an inch above it. The small portion left under and connected with the joint is to be cut off horizontally, quite close to the bottom of the joint, but not into it, because it is from the outer circle of the bottom of the joint that the fibres proceed, and consequently this part ought to be protected. It is also requisite to cut it off close to the joint, because if suffered to remain, it would decay, and perhaps infect with putridity the joint itself, and kill the plant.

The slip or tongue thus recommended to be made, is for the purpose of interrupting the pulp from flowing downwards, and to enable it to form root fibres, while the sap in the more central parts flowing upwards would not be interrupted, and the layered shoot still continue to grow as if nothing of the kind had happened. If the incision is made with a knife, the layer should be pressed into the soil firmly, and great care must be taken not to break it off or crack it at the joints, for this would interrupt the due supply of sap from the mother plant, and it would also render it liable to canker, and if that should take place the plant must inevitably perish.

A peg must be forced into the ground close behind the joint where the incision was made in the layer, and not more than half an inch below the surface of the soil, for I have always found that the fibres are soonest formed, when the joint from which they proceed, is barely covered with earth. When buried too deep they will be out of the reach of the sun's heat, and of course less liable to root, and in many cases decay all together. The remaining part of the stalk of the layer should lie as much as possible upon or above the surface of the soil, but should not on any account be covered deep with earth, for the heat of the sun, and air, being excluded, would inevitably cause it to decay before the layer could be furnished with sufficient nourishment to cause the process of rooting.

It will be necessary to raise the extreme point of the layer to as upright a position as can conveniently be effected, but it is necessary at first that it should have an exactly erect position, for it will naturally soon acquire this in its progress of growth. It should not be so horizontal as not to allow the cut part to open sufficiently for the fibres to issue out with regularity on every side. The layers when pressed down should be in a dry state, for they are so brittle when full of sap that they are liable

to break off. When, therefore, the layers are dressed and ready to be pegged down, it is requisite the plant should be placed in the sun for a short time, say half an hour, in order that the layers may become flaccid and pliable, I have found this a very beneficial experiment.

I have always found it the best mode of proceeding to give the plants a good watering after the process of laying, and also to shade them from the influence of the mid-day sun, till the layers has taken hold of the soil by rooting themselves firmly. They will be rooted generally in about three or four weeks, and may be removed in two months.

When the roots of the layers have struck firmly in the ground they may then be cut off from the mother plants, with nearly an inch of the stalk below the incision attached to them, and with the root fibres as entire as possible. The sticky parts near the bottom and the top leaves must be trimmed off, and the young plants will then be fit for planting out either in beds or in pots, just as the inclination of the person laying may think fit. If planted in beds, they may be placed six or eight inches distant from each other with a dibber, and have a good watering every second day till they take fresh root, which will not exceed two weeks, and I consider the best time for separating the layers to be about the middle of March.

When the roots of the plants appear to be firmly fixed in the soil they should be removed with balls of earth about their roots, and potted in large or small pots, according to the fancy of the grower. If on removal from the mother plants they are to be potted, this may be done in pots No. 48, or larger, according to the number of plants to be placed in each pot; the compost should be good loam and leaf mould in equal proportions, which I have generally found to answer the purpose, and to produce strong plants, and fine flowers. After planting, I place the pots upon boards, slates, or tiles, that the intrusion of worms may be prevented, and about the middle of October I convey them to a place of safety to protect them from the winter frosts.

Unless very strong and sound, the plants from which the layers are taken, seldom survive, but it may sometimes happen that the young upper shoots be left, as is often the case when they are too short to be conveniently laid. These short shoots will of course continue the growth of the plant by promoting the absorption of the sap from the soil. The old plants

which are likely to survive after the layers are taken off, should be placed in the warmest situation in the garden, and be defended from severe frosts and heavy rains during winter, by mats and hoops. When the spring approaches the plants will require to be fresh potted like other plants; by this treatment it is likely they will become strong and healthy and grow flowers equal, if not superior to those they formerly produced.

ARTICLE. III.

ON A DESCRIPTION OF THE ALOE.

BY POMONA.

THE Aloe is a genus of succulent plants belonging to the natural order Asphodeleæ, and comprehends a considerable number of species which differ from each other exceedingly in the size, form, and surface of their leaves, in stature, and in the colour, size, and structure of their flowers. The greater part of them are mere objects of curiosity, are only seen in collections of succulent plants, and in this country they are generally placed upon lawns or before the edifices of gentlemen, where they have a very pleasing effect; but there are among them a species of very great value on account of its yielding the well-known medicine of the same name.

From what particular species the resinous substance called Aloes is procured, and whether the different samples known under the name of Hepatic, Socotrine, and Horse Aloes are yielded by different species, or are only different qualities of the same species, are points not clearly settled.

All that appears certain is, that plants nearly related to Aloe perfoliata of Linnæus, which some consider as distinct species while others pronounce them mere varieties of the same, are what the drug is prepared from. In all probability, all the species of the genus, having an aborescent stem and thick succulent leaves, will yield the substance equally well.

That which has the reputation of producing the best aloes is A. Socotrina; a plant having, when old, a round stem, three or four feet high; leaves of a sword form a foot and half to two feet long, sharp edged, sawed, hard and pungent at the apex, often collected in clusters at the top of the stem, and red flowers

tipped with green, borne in clusters on tall stalks, which rise erect from among the leaves.

This plant is a native of the Cape of Good Hope, and the island of Soccotora, but is now commonly cultivated in the West Indies. The processes of preparing the drug are various. Sometimes the leaves are cut off at the base and placed in iron vessels to drain, until they have discharged all their juice, which is then inspissated; in other places the leaves are cut into slices and boiled for ten minutes, after which the water in which they had previously been boiled had evaporated, the resinous substance is left behind. Pressure is occasionally resorted to for the purpose of procuring the greatest quantity of juice.

Soccotrine aloes seem to be the purest kind obtained by draining only, hepatic or Barbadoes aloes are less pure, and may be obtained by boiling or slight pressure; while horse aloes are undoubtedly a coarse preparation of the dregs of the last-mentioned.

No plants can be more easy to cultivate artificially than the Aloe tribe. They are incapable of parting rapidly with water, and therefore they require to be planted in a soil that is very slightly retentive of moisture, so that they may not be gorged with it by their roots; for this reason they are potted in a compost consisting of little more than lime rubbish, mixed with a small quantity of ordinary soil, and carefully drained. They require a greenhouse which is capable of being maintained at a temperature not less than forty degrees in the depth of winter, at which time they ought to have no water whatever; in the summer they want no fire heat, but may be watered regularly, the supply being always according to their rate of growth, and likewise to the temperature of the air; that is to say, when in full growth and a high temperature, they may have abundance of water, but when growing slowly and in a low temperature, they should have but very little.

POMONA.

ARTICLE IV.

ON THE COMPOSTS FOR THE AURICULA.

BY ETHNIC.

THIS plant is grown in most of the poor artisan's gardens in the greatest perfection, for it is a plant that requires more care than all the florist flowers; in Manchester, the method of growing the plant, is this, the frame or pit is made of turf, built three feet high at the back, and two feet in the front, facing the south-east, with a wooden shutter or door to keep off the wet and frost, and to be taken off in mild weather.

In planting the Auricula for bloom, care should be taken to select strong young plants with strong hearts and sound, free from all decay, looking white and healthy round the shank or neck, the plants must be planted in rich light soil; the soil used in Lancashire is three parts rotten sheep dung, with one part light fresh mould mixed together and past through a seive or riddle; in Yorkshire the compost parts are one barrowful of dead leaves, one barrowful of cow dung two years old, one barrowful of decayed vegetable mould, and one barrowful of river sand mixed well together; in Lancaster it is similar to the above, in Suffolk dead fish is used instead of rotten cow dung, which they say grows them much finer than either horse, sheep, or cow dung. I have seen near Bristol some sorts that have been very fine and good flowers, which I have condemned altogether as not being fit for show, and if I had had them at several exhibitions, they would have stood the first; no doubt there is so much for situation and soil with this flower, that it would be difficult to describe which is the best, for it will grow very fine in either of those I have mentioned above, though it is so variously treated with growers who have many different means of mixing the compost with as various soils, as there is varieties of plants themselves.

But I believe the best way to have the frames, is to build them with a stage as figured in a former number of your Cabinet; if the frame was made so as to take away the back and front, and leave the glass on in wet weather, it would keep them dry and give them air at the same time, I am likewise sure the plants would be more healthy and not so liable to

damp off, as is in general the case with plants grown in pits or frames, as I have elsewhere described, they will retain their health only for a short time, for I know of no person growing them in pits but the stock has dropt off by a disease of rotting in the neck of the plants, when this begins there is no end till the whole stock has suffered; in this case examine the plants and you will find them to look of a purplish hue round the neck, they must then be carefully removed or the disease will infect the whole stock; my own frame is built of brick two feet high at the back and one foot at the front, with stakes at the corners three feet long at the back and two feet in the front for the doors, there is then a board one foot in breadth back and front on hinges, which is drawn up in rainy weather for the admission of air; this is the best plan that I know of for the culture of the Auricula, the number of varieties in cultivation have been given in a former number of the *Floricultural Cabinet*.

ARTICLE V.

ON THE CULTURE OF THE LOBELIA CARDINALIS.

BY EMILY ARMSTRONGE.

I WOULD not have offered these remarks on the above splendid flower after the able and pleasing statement made by An Ardent Amateur in a former number; but have experienced on trial that they can be grown with less care and trouble than described by him. In the month of October I removed the plants from the open border into pots eleven and twelve inches in diameter; the flower pots contained a mixture of yellow clay, light mellow loam and pit sand, previously well mixed and sifted; having no green-house, they were placed in a room having a south westerly aspect, there being no fire allowed while the plants remained in it. In the first week of the month of March I divided the offsets from the parent plant, not having done so the previous October; I am convinced that spring is the best season for such separation; all the offsets and parent plants were separately planted into pots of a smaller diameter, containing the same kind of soil. The last week of the month of March I turned each ball containing one plant (taking particular care that no portion of the soil should be separated from it,) into a border well sheltered from the

north-east and westerly winds, yet sufficiently airy and open. The south-eastern border was previously prepared thus, three inches of well rotted dung first laid in, four inches of well sifted light mellow loam, leaf mould, pit sand, and yellow clay, well incorporated together six months previous; the plants were then inserted into this, and never drooped whenever there was an appearance of frost at night, a flower pot was placed over each plant, and removed the succeeding morning. The growth of all weeds were checked around the plants by repeated turnings of the upper surface of the soil, which also refreshed the plants, during the dry season they should be watered abundantly two or three times a week with and without the rose on the watering pot.

By the above treatment I have had twenty-six plants from three parent roots in one year and all are of great magnitude promising an abundant bloom.

EMILY ARMSTRONGE.

July 25th 1837,

ARTICLE VI.

ON THE CULTURE OF CUTTINGS OR SLIPS OF DAHLIAS.

BY AN AMATEUR.

THE Dahlia has of late years so much engrossed the attention of Florists, that perhaps the following observations on the culture of slips or cuttings of that majestic and beautiful autumnal flower may not be uninteresting to your readers; the slips ought to be short branches taken off either by the hand or the knife from the main stem, or what is preferable, originating near the tuber itself; it being important to have as much as possible of the woody fibres at the joint, as the soft juicy part is apt to decay rather than produce roots. In the spring, indeed, when the eyes, have shot up two or three inches, the shoots may be broken or split off by pushing them backwards and forwards at the bottom and planting them about an inch deep in thumb pots, one in each pot, when they generally become fine plants and flower well. When the grower has no frame or hand-glass he must keep the potted cuttings close to the window glass of a room, so that they may have abundance of light; and if a

fire be kept in the room so much the better, though it is by no means so effectual for the rooting of the plants as stove heat. The cuttings may be protected out of doors, by covering them with inverted glass tumblers or jelly pots, but if a severe frost occurs, they must be put under cover, or their destruction is inevitable.

I find that in my practice the best method of forwarding Dahlias is to place for bottom heat tan or well rotted dung in a frame, the cuttings and young plants being moderately watered, giving as much light as possible, till the small pots are filled with roots, when they must be repotted into larger sized pots, using a compost of one third sandy loam, or common garden earth, one third leaf mould, or cow dung two years rotted, and one third white sand or scrapings. After this process is performed they must still be kept in a slight bottom heat till they are re-established in the pots; after which it is better to keep them in a greenhouse in a cold frame, or in the window of a room close to the glass, where no fire is kept; or if the weather be mild they may be set out of doors under well matted hoops, exposing them only for a short time, but before May this is hardly safe.

I have read in an Instructive Publication, that the growers who propagate for sale, prepare their hot beds in February, or the beginning of March, in order to have their plants ready to send out in May; but as that month is too early to risk the planting out of tender or valuable sorts, it is unnecessary for those who cultivate, for their own amusement, to prepare their hot bed before Lady-day, or the beginning of April. It may be made of fresh hot stable dung, something larger each way than the frame intended to be set on it, and after it is made up it must be allowed to ferment about a week, for the heat to subside a little. When the frame is to be put on, three inches of sandy soil should be sifted over the dung on which the tubers are to be laid, and covered with similar soil, or with dry moss, taking care to leave the crown of the tuber above the level of the soil. If much heat arise, the back of the lights must be raised a little so as to admit the fresh air and permit the escape of the steam; but at night matting secured from being blown off by the wind will be requisite unless the weather prove very mild, and must from time to time be sprinkled with warmish water. When the eyes push

out shoots, more light will be wanted than before, but greater care will also be necessary to guard against cold at this uncertain season of the year,

AN AMATEUR.

ARTICLE VII.

REMARKS ON THE SHRUBBERY.

BY REV. HENRY HILL, A. M.

(Continued from page 112.)

In addition to the trees and shrubs, which will be noticed in this work as flowering the latest, aid should be borrowed from such autumnal flowers as continue gay until the approach of winter. The towering hollyhock, when half concealed, and half seen through the shrubs and evergreens, is one of the boldest enliveners of the plantation at this season. This plant yields to none in beauty of form, majesty of carriage, or gaiety of colour its hues proceed through all the tints of crimson, from the palest rose to the deepest purple; and from the purest white through all the shades of yellow, orange, and iron-brown. The tall sun flower should also figure in the back ground; and the middle space may be allotted to the richly varied delecta of the western world. The foreground is to be rendered splendid by large plots of the asters of China, the general tints of which, inclining to blue or purple, contrast well with the more gaudy colours of the African marigold, or the nasturtium of Peru, which latter should be suffered to climb the holly or other trees, exhibiting its flaming petals to enliven the closing year.

In young plantations, where the evergreens have not spread sufficiently to cover the surface, clumps of wall-flowers are exceedingly ornamental, and their green, which is of the most agreeable tint, lasts through the winter, they often flower both late in the autumn and early in the summer. The periwinkle is also an excellent running plant to cover the slopes and banks of the shrubbery, as its blue flowers are to be seen amidst its evergreen leaves, from March to the middle of November.

It must not be forgotten that England possesses advantages over every other part of the globe for ornamental gardening; first the fineness and beauty of its turf, which retains its verdure

throughout the year without much labour or expense; whilst on the continent, this is obtained only by the assistance or partially concealed means of irrigation. The few lawns that are kept in any tolerably decent order abroad, are generally under the care of Scotch or English gardeners. The gravel of this country is also so superior to that of any other part of Europe for the formation of walks, that the royal gardens of Naples have their paths covered with gravel brought from the distance of Kensington. Perhaps there is no one spot where the plants of the north and south thrive so well together as in the English shrubbery. Added to these advantages, the absence of ravenous beasts and venomous reptiles, are blessings that ought to make us

“ Vain of our beauteous isle, and justly vain,
For freedom here, and health, and plenty reign.”

As it is the skilful distribution of trees over the grounds, more than their peculiar character, which adds dignity to the landscape, so it forms one of the most important parts of the planter's study to discover where to place the rising grove in such a situation as to improve the view. In a flat country, the first care should be to give an additional appearance of height to spots already elevated, by planting upon them the tallest trees that the soil will suit. In parks and paddocks, the belt or long plantation, should generally be avoided, as well as that of the crescent shape, because they prevent a free circulation of air, and render the enclosed atmosphere unwholesome. Oblong or circular plantations, on the contrary, afford the trees an opportunity of benefiting by the air; admitting, at the same time, a view of the landscapes which they partially intercept.

“ The fountain's fall, the river's flow,
The woody vallies warm and low;
The windy summit, wild and high,
Roughly rushing on the sky!
The pleasant seat, the ruin'd tower,
The naked rock, the shady bower,
The town and village, dome and farm;
Each give to each a double charm,
As pearls upon an Ethiop's arm—

DYER.

The principal feature of the park should be grandeur, and the boldest points of the surrounding country should be made subservient to the scenery by that arrangement of the plantation which will give such prospects the greatest advantage. Yet should the park exhibit some signs of refinement, by the softening down of particular parts by means of varying tints, so as to give greater contrast to the natural scenery.

“ Here groves arranged in various order rise,
 And bend their quiv’ring summits in the skies.
 The regal oak, high o’er the circling shade,
 Exalts the hoary honours of his head.
 The spreading ash a differing green displays,
 And the smooth asp in soothing whisper plays,
 The fir that blooms in spring’s eternal prime,
 The spiry poplar and the stately lime.”

ARTICLE VIII.

ON WATER AND WATERING PLANTS.

(Continued from page 284.)

“ THOSE persons who are conversant in Agriculture will easily submit to this.

They are well aware that though their earth be never so rich and good, and so fit for the production of corn and other vegetables, yet unless the parts of it be separate and loose, little will come of it.

It is therefore upon this account that they bestow the pains they do in the culture of it, ploughing, harrowing, and breaking the clodded lumps of earth.

It is the same way that sea salts, nitre, and other salts promote vegetation; and he says he is sorry that he cannot subscribe to the opinion of those learned gentlemen, who imagine that nitre is essential to plants, and that nothing is acted in the vegetable kingdom without it.

For by all the trials he has been able to make, the thing is quite otherwise; and when contiguous to the plant, it rather destroys it than otherwise.

But this nitre and other salts certainly do; they loosen the earth, and separate the concreted parts of it; and by that means

fit and dispose them to be assumed by the water, and carried up into the seed, or plant, for its formation and augment.

There is no one but must observe how apt all sorts of soils are to be wrought upon by moisture, how easily they liquate and run with it; and when these are drawn off, and have deserted the lumps wherewith they were incorporated, those must moulder immediately and fall asunder of course.

The hardest stone, if it happened as it frequently does, to have any salt intermixed with the sand of which it consists, upon being exposed to a humid air, it in a short time dissolves and crumbles all to pieces; and much more will clodded earth and clay, which is not near of so compact and solid a constitution as stone is.

The same way likewise it is that lime is serviceable in this affair. The husbandman says of it, that it does not fatten but only mellow the ground. By which they mean, that it does not contain anything in itself that is of the same nature with the vegetable mould or afford any matter fit for the formation of plants, but merely softens and relaxes the earth, and by that means renders it more capable of entering the seeds and vegetables set in it, in order to their nourishment, than otherwise it would have been.

The properties of lime are well known and how apt it is to be put into a ferment and commotion by water; nor can such commotion ever happen when lime is mixed with earth, however hard and clodded that may be, without opening and loosening of it.

Observation 4. The plant is more or less nourished and augmented in proportion, as the water in which it stands, contains a greater or smaller quantity of proper terrestrial matter in it.

The truth of this proposition is so eminently discernable through the whole process of these trials, that, he thinks no doubt can be made of it.

The mint in the glass C, was much of the same bulk and weight with those in A and B; but the water in which that was, being river water, which was apparently more stored with terrestrial matter than the spring or rain water, wherein they stood, where it had thriven to almost double the bulk, that either of them had and with a less expense of water.

So in a like manner the mint in L, in whose water a quantity of good garden mould had been dissolved, though it had the disadvantage to be less, when it was first set, than either of the

mints H or I, the water of which was the very same with that in L, but had not any of the earth mixed with it; yet in a short time, the plant not only overtook, but much outstript all those; and at the end of the experiment was very considerably bigger and heavier than either of them.

Also the mint in N, though it was less at first than that in M, being set in that turbid, thick, succulent water, that remained behind after that wherein M was set, was distilled off, had in the end more than double its original weight and bulk, and received above twice the additional increase, which that in M had done, which stood in the thinner distilled water, and which is as considerable, had not drawn off half the quantity of water which that had.

The reason why in the beginning of this article he limits the proportion of the augment of the plant to the quantity of the proper terrestrial matter in the water, is because all, even the vegetable matter, to say nothing of the mineral, is not proper for the nourishment of every plant.

There may be, and doubtless there are some plants that are much alike in different species of plants, and so owe their supply to the same common matter; but it is plain all cannot. And there are other parts so differing, that it is no ways credible, that they should be formed all out of the same sort of corpuscles; nay, it is so far from it, that there does not want good indications, as will be seen by and by, that every kind of vegetable requires a peculiar and specific matter for its formation and nourishment, yea, each part of the same vegetable does so; and there are very many and different ingredients that go to the composition of the same individual plant.

If therefore the soil, wherein any vegetable or seed is planted contains all, or most of these ingredients, and those in due quantity, it will grow and thrive there, otherwise it will not.

If there be not as many sorts of corpuscles, as are requisite, for the constitution of the main and essential parts of the plant, it will not prosper at all. If there be these, and not sufficient plenty, it will starve and arrive at its natural stature; or if there be any the less necessary and essential corpuscles wanting, there will be some failure in the plant. It will be defective in taste, in smell, in colour, or some other way.

(To be continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. CEREUS PENTALOPHUS var. SUBARTICULATUS. *Five winged Cereus* [Bot. Mag. 3651.

CACTEÆ. ICOSANDRIA MONOGYNIA.

This very pretty flower and rare species has bloomed in the fine collection of Messrs. Mackie, Norwich. The flower is nearly four inches across, of a fine rose colour, merging nearly into a white centre, where the yellow anthers, and dark blue and green anthers, which show in a neat contrast with the other colours.

2. CRYPTOCHILUS SANGUINEA. *Blood coloured flower.* [Bot Reg. 23.

ORCHIDACEÆ. GYNANDRIA MONOGYNIA.

This very pretty orchideous plant is a native of rocks in the northern provinces in India. It has bloomed in the fine collection of Messrs. Lodiges's. The plant belongs to the section Epidendræ, and bears affinity to Acanthophippium. The flowers are produced in spikes, of twelve or more upon each, of a bright scarlet colour. Cryptochilus, referring to the concealed lip.

3. ECHINACEA DICKSONIA. *Mr. Dickson's* [Bot. Reg. 27.

ASTERACEÆ. SYNGENESIA POLYGAMIA.

A native of Mexico, the seeds of which were presented to the London Floricultural Society by G. F. Dickson, Esq. The plant is a perennial, probably hardy enough to endure an ordinary winter in the open border; but as the roots bear being taken up and preserved through the winter in dry sand in a similar way to which some persons preserve the Dahlia, it is advisable to take the same precaution with it. The plant blooms from the early part of August to the end of September or later. The flowers are very showy, of a carmine rose-colour, slightly streaked with white, having a yellow centre, each bloom about four inches across, they are produced very numerously. Blooming so late in the season, the plant rarely produces seeds in the open air, when such are desired it is advisable to take a plant into the greenhouse, where by blooming earlier, seeds are readily obtained. The plant does not bloom the first season, so that the plant requires to be sown as an half hardy annual in March, and be planted out in the open border about the middle of May. Echinacæ, from the adjective Echinaceus, bristly, alluding to the sharp scales of the receptacle.

4. EPIDENDRUM OCHRACEUM. *Yellow Ochre coloured.* [Bot. Reg. 26.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of several parts of tropical America, Messrs. Lodiges's possess it, and received it from Oaxaca, Mr. Skinner discovered it in Guatamala. Captain Sutton brought a plant from thence to this country, and presented it
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N

to Sir Charles Lemon, in whose collection at Carcleu, it bloomed in 1836. The flowers are produced in a scape, which rises to the height of six or eight inches, each scape having ten or twelve. The sepals are of a dingy brown outside and paler within. Labellum of a purplish white; each flower is about half an inch across.

5. BARTONEA AUREA. *Golden flowered.* [Bot. Mag. 3649.

LOASEA. ICOSANDRIA MONOGYNIA.

This is a very fine and showy annual, growing about three feet high, and flowering very freely. The blossoms are of a fine yellow, near three inches across, resembling a yellow *Oenothera*. *Bartonia*, in compliment to Dr. William Barton of Philadelphia.

6. REHMANNIA CHINENSIS. [Bot. Mag. 3655.

SYNONYM, GERALDIA GLUTINOSA, DIGITALIS GLUTINOSA.

A native of China, growing upon the walls around Peking, where it was collected by Dr. Bunge. The plant grows to about a foot high, the flowers resemble in form the well-known *Mimulus glutinosa*, but the colour and marking is very similar to *Justica picta*, or bicolor, of a yellowish white, with dark centre and striped, the outside of the flower purple. It is a very pretty and interesting plant, requiring to be grown in the greenhouse.

7. PIMELEA INCANA. *Hoary* [Bot. Reg. 26.

THYMELLACEA. DIANDRIA MONOGYNIA.

Seeds of this new species were sent from Van Dieman's land to Miss Copeland of Leighton, in whose collection it has recently bloomed. Though the plant was raised from seed in 1834, it is now a bushy plant, attaining the height of five feet. The plant is a profuse bloomer. The flowers are white on the upper side, and pink beneath.

New or Rare Plants noticed at different Nurseries.

ONCIDIUM TETRAPETALUM. This beautiful flowering little species was sent from Jamaica by J. H. Lance, Esq., and it has bloomed in the London Horticultural Societies' garden. The flowers are small, the labellum is of an alabaster white, excepting its base, which is yellow and brown. The petals and sepals are spotted, streaked and barred with brown, and the column has two large spotted wings.

COMESPERMA GRACILIS. A neat greenhouse climber, the flowers are small but are produced in profusion, they are of a bright blue colour, and have an interesting appearance. It has bloomed with Mr. Young of Epsom.

ZICKIA MALLE. A very pretty flowering greenhouse plant, which has recently bloomed with Mr. Lowe of Clapton nursery, the flowers are very similar to *Kennedia coccinea*, and have an interesting appearance.

JASMINIUM LIGUSTRUM a handsome greenhouse species with white flowers which are delightfully fragrant.

CLEMATIS MONTANA. This new and interesting species is in the collection of Mr. Groom of Walworth. The flowers are white, and probably it will prove as hardy as *C. Sieboldii*,

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON FUCHSIAS, &c.—A constant subscriber would wish to see figured in the Cabinet, at some early occasion, one or two figures of the new, high priced Fuchsias; and he would be glad to know where the new *Datura Gauyaquiliensis* can be procured, its price, and a few hints on its culture; also, where can *Delphinium Barlowi* be procured, and its price,

LIMERICK.

ON A NEW MODE OF HEATING HOT-HOUSES, &c.—G. R. being informed of a new plan being discovered for Heating Hot-Houses and Green-Houses, at a far less expense than that at present in use by steam, or flues, will feel obliged by the Conductor, or Readers of the Floricultural Cabinet, (to which he has been, with many friends, a Subscriber to, from No. 1.,) inspecting the same which is to be seen at the Jerusalem Coffee House, Cooper's Court, Cornhill, London, a report of which he should like to see in the July Number.

G. R.

ON DESTROYING ANTS—Permit me to enquire through your interesting publication the means to be adopted for the destruction of the Ant, which infests the pit of my conservatory, and causes the flowers as well as leaves of the Orange plants in the same to fall off, and the plant to look unhealthy. The pots of Roses, as well as Oleanders are also infested with the said insect. Coal tar, tobacco, snuff, lime, &c., I have severally applied, but all of no avail. Any remedy you, or any of your numerous correspondents, can suggest, will be esteemed a favour, by Sir, your patron and admirer of your Cabinet.

Q.

ANSWERS.

ON FORCING ROSES.—In answer to your correspondent Rosa, relative to Forcing Roses, I have sent a brief account of the best plan I know. He must in the first place collect an equal portion of good substantial loam, rotten leaves, and very rotten dung from an old cucumber bed, mixing them well together, then procure some pots from nine to twelve inches in diameter, putting three plants in a pot; I repot the plants I forced last January and February about the latter part of August, then let them remain in the open air until December, when I remove them into the hothouse, but before I take them there I cut back the young shoots to two or three eyes of the old stem. For the first three weeks I keep the house to sixty or seventy degrees of heat, then I increase it to eighty or ninety degrees: I would not recommend forcing them sharp in the first place, as that prevents their breaking strong, and consequently there would not be so many flowers, but if your correspondent follows the plan I have before recommended, he will find it to answer his expectations.

R. J. W.

REMARKS.

ON DEFORMED FLOWERS, &c.—A lady residing in the neighbourhood of Bathurst, New South Wales, has observed some curious phenomena in her garden, which she thinks of sufficient interest to be inserted in the pages of

the Floricultural Cabinet; as some of its readers may be able to account for these singular productions of nature. Mignouette (for instance) would here and there throw out a strong shoot, resembling tree mignonette, without perfume; and the seed pods formed without seed in them, and larger than usual. Out of those pods sometimes grew flowering tops of fragrant Mignouette. She has felt much pleasure in cultivating the seeds she brought from England, and has observed in many of the plants she raised, that after the first flower or two had opened, many of the succeeding flowers became green, and scarcely like the flower in shape; somewhat similar to a calyx without a corolla. On the *Hibiscus Africanus*, some shoots flowered very well, and others produced only small, green calyxes. She could only save one *Nasturtium* seed, all the flowers being imperfect, green and diminutive.

A friend in England has regularly sent her the Floricultural Cabinet, from which she has derived much useful information.

The following one hundred sorts of Heartsease were recently exhibited at a Floricultural Exhibition, which are of first rate characters, and obtained the first prize. I took the names of each, and sent the list for insertion in the Cabinet. Those marked with an asterick I considered the best.

X. Y.

*Enterprise	Aurora	Lady Peel
*Masterpiece	*Minerva	*Duke of Marlborough
*Hecuba	Momus	*Do. of Northumberland
*Lord Glammas	Somnus	Richardson's Adelaide
Prospero	Cecilia	*Clande
Nonpareil	Samson	Caravan
*Incomparable	*King	Gem
Cicero	Josephus	Emperor
Royal Lilac	Homer	Diomed
Beauty of Tottenham	Flora, Roger's	Brutus
Lady Blessington	Do. Hollis's	Scot's Helen
Corrinna	Do. Mountjoy's	Countess of Bridge-
*Deademona superba	Cupid	water
*Diana superba	Jem Crow	Do. of Verulum
Immutabilis	Battersea Beauty	Cato
Donna Maria	Politor	*Andromache
High Admiral	*Emma	*Enchantress
Purpurea perfecta	Incomparable	Matchless
Frogmore Beauty	Vesta	*Pomona superba
Columbine	Romeo	Radical Jack
Nabob	*Lilac perfection	Atropurpurea
*Queen Victoria	Expression	Beauty of Ealing
Purpurea Elegans	Fair Rosamond	Cromwell
Achilles superb	King of Oude	*Chimpanzee
Goliah	Pizarro	Coronet
Queen of Scots	Parragon	Horace
John Bull	Blucher	Laxiflora
Wild's Defiance	Apollo	Nimrod
King's Alfred	Susannah	Beauty of Dalston, Smith
Bacchus	Prince Eugene	Paris
Wallace	Crocea superba	Theresa
*Shakespeare	Hornsey Hero	Glaucus
Comus	Rainbow	Battersea Hero
Royal Purple	Pencilatum	

THE LATE MR. ANDREW KNIGHT, Esq.—This estimable man known for so many years as the President of the Horticultural Society of London

expired on Friday last, after a short illness, at the house of his daughter-in-law, in Upper Seymour-street, at the advanced age of seventy-nine. He arrived in London on the evening of the 30th of April, in a tolerable state of health, for the purpose of attending the anniversary meeting of the Horticultural Society, on the following day, on which occasion he has, with very few exceptions presided, since his first becoming President in 1811; but the fatigues of the journey, combined with the debility consequent upon his advanced years, prevented his attendance. It was generally remarked by those who had the opportunity of seeing him at the preceding anniversary, that that occasion would be his last; a prediction which has been too truly realized, for the Society of which he was the distinguished head. In their President, the Horticultural Society has lost the principal, if not the sole tie which attached them to the republic of science, and have probably met a loss they can never compensate.

In the future ill-assorted mass which compose their transactions, the hand of the master will be no longer recognized, and death has struck a blow that will do more to annihilate the sophistry and imbecility of their management than any other event that could possibly have happened.

Mr. Knight was born at Wormeley Grange, in Herefordshire, in 1759. His father, be it observed, was a man of much learning and acquirements. Having great power of mind, and living in an extremely quiet and sequestered spot, he was supposed by his ignorant neighbours, in their language, "to know every thing." He died at an advanced age, when Mr. Knight was an infant; an evidence of the respect his knowledge obtained him, whenever his son sought to know in childhood, for any unusual subject, he was told, "that his father would have answered him, but that nobody else could." Being born in the midst of orchards, he observes, "I was early led to ask whence the varieties of fruit I saw, came, and how they were produced. I could obtain no satisfactory answer, and was thence led first to commence experiments, in which, through a long life of scarcely interrupted health, I have persevered, and probably shall persevere, as long as I shall have the power."

Mr. Johnson, the author of a work on English Gardening, published in 1829, thus sums the character of this individual:—"If the question was put to me, who is the most scientific horticulturist now living? who unites to a knowledge of the practices of gardening, the most perfect knowledge of the sciences that assists it? which of living horticulturists have conferred the greatest benefits upon our art? I should quote Mr. Knight, in reply to them all. Whether we follow him in his researches as a physiologist, in his luminous observations and discoveries respecting the sap of plants; as a general cultivator in the numerous papers in every branch of horticulture in the transactions of the Society of which he is President, and especially in the raising of improved fruits and culinary esculents, we find in all, the most ample justification for our opinion, that he is the first floriculturist of our times. Nor is he eminent alone in the higher walks of horticulture, for at Downton Hall, he demonstrates that he is capable of securing the correct performance of every detail of gardening."

Mr. Knight was one of the earliest promoters of the Horticultural Society, his name being inserted in the charter of incorporation first granted to that body. On the death of Lord Dartmouth, the first President, in 1811, he was elected to fill that office, which he held to the period of his decease. Until even the latter period of his life, he was a constant, and almost the universal contributor to the transactions of the Society, whose death will prove a great chasm. Although distinguished particularly for his attention to fruits, he, was well versed in every department of horticulture; and if his researches in vegetable physiology have not tended much to the improvement in that art, they show proofs of enlarged thought. His fortune was not princely, but his gifts to the promotion of science, were munificent, and

his domains in Herefordshire displayed a very interesting development of the principles of modern horticulture.

Mr. Knight was the author of many valuable Works, independent of his extensive contributions to the Transactions of the Royal and Horticultural Societies.

NEW OR RARE PLANTS NOTICED

IN VARIOUS NURSERIES, &c.

At Mr. Grooms, Walworth.—**LARGE ORNATA.** A new and pretty plant at £5. 5s. each, it has not yet bloomed. Also **DIPLOLENA DANFIERII**, £5. each, neither of the species have yet bloomed with Mr. Groom. The Tulips are in most vigorous growth, and are grown in amazing multitudes; one bed is valued at £1500. The show will be most splendid, and well worth going a considerable distance to see.

At Messrs. Chandler's, Vauxhall.—Their collection of Camellias were in fine bloom. The following were the most superb. **CANDEISSIMA**, **EXIMIA**, **DONCKERII**, **EXIMIA**, **ROSA SINENSIS**, **PARKSI**, **BEALII**, **VANDESHIA**, **FLORIDA**, **SANGUINEA**, for the description of colour we refer our readers to the excellent lists by Camellieæ in former numbers. The collection of Hybrid Rhododendrons are in splendid bloom, and some of the kinds are very much superior in beauty to anything we have seen. We shall notice them (more particularly) in our next number. To see them in bloom will amply repay for a journey. A very magnificent Hybrid one we saw in bloom at Mr. Milnes, Stoke Newington Nursery, having seventy-five heads of flowers.

DIASMA CAPITATA.—A beautiful greenhouse plant, forming a neat bush, and blooming most profusely. The flowers are of a bluish-purple. It is as hardy as a Myrtle.

CAMELLIAS. The show was most brilliant, and some of the kinds are grown, to large bushes, ten or twelve feet high, and literally loaded with flowers. To walk amongst them is like going through a forest of Camellias. It would amply repay a visit to view them. We shall remark on various kinds in our next month's number.

ACACIA CULTRIFORMIS.—Messrs. Rollisons of Tooting Nursery, have had this plant beautifully in bloom, bearing a profusion of fine yellow flowers. It is a desirable plant to turn out in a conservatory.

RIBES MENZIESII.—The late Mr. Douglas sent seeds of this rare and little known species from California. The young shoots are densely clothed with slender bristles, very much like *R. Lacustre*, but is very different in its flowers. Those of *R. Menziesii* are of the same colour as *R. speciosa*, with the exception of being a little paler; they are smaller, and without the high projecting crimson coloured stamens, which appear so beautiful in the flowers of this last named species. The plant appears to be quite hardy; it is at the London Horticultural Society's Garden.

DENDROBIUM CANDIDUM.—This new and fine species has been sent from Nungelow, in India, by Mr. Gibson, collector to the Duke of Devonshire, and it has bloomed at Catsworth. The flowers are of a pure white, most powerfully fragrant. The habit of the plant is that of *D. Nobile*; growing erect.

RHODODENDRON SMITHII. The show of this splendid plant was most magnificent at Messrs. Chandlers, we may add, was unrivalled. They possess the original true variety, which far exceeds in beauty some other kinds

which are set out for the original. There was also a splendid show of many other hybrids, with flowers of various hues, certainly the finest kinds we ever saw. Further descriptions of them we will give hereafter.

MATHIOLA ODORATISSIMA. A most interesting plant of the well-known old species, called the Night-scented Stock. The plants are, however, much more vigorous, the flowers more than twice the size, and of a paler colour. They are delightfully fragrant, and the plant merits a place in every collection where a ready access can be had to it in the evening.

Mr. Chandler informed us that during the last severe winter, that all their fine collection of hybrid Rhododendrons, which were growing in the open ground and were raised between *R. Cataubiense* and *R. arborea*, had not suffered in the least, whilst those from *R. ponticum* and *R. arborea*, were all dead.

MILTONIA SPECTABILIS. A new Brazilian Orchideous plant, has lately bloomed at Messrs. Lodiges's, also with J. Baker, Esq., Springfield. The flower is produced in a scape, of only one in each, the sepals and petals are of a pale greenish yellow, and the labellum of a fine violet colour.

REFERENCE TO PLATE.

It being the season when beds of Pansies can be successfully made to bloom during the end of summer, and when they are exhibited at most shows, we have given the present plate as suitable to the time, that our readers may see that the kinds were exhibited, or procure them for cultivation.

The four Pansies we have given are the four most perfect flowers we could find during a tour we have recently made to view and procure all the best kinds, and attending several of the Metropolitan exhibitions, as well as others in the country. We are sorry to state that our engraver has, from not understanding our order correctly, misplaced the names of two of the pansies, which we did not discover, till too late to remedy. The one named Duke of Marlborough, should be "Ne plus Ultra," and that named Ne plus Ultra, be "Duke of Marlborough."

FLORICULTURAL CALENDAR FOR JUNE.

ANNUALS.—See pages 43, and 72, Vol. I.—Those annual plants that have not yet been transplanted out, should now be done, in cloudy and showery weather, keeping as much earth to their roots as possible, now supporting those with sticks that require it—thin out where too thick. Tender annuals may now be turned out into the flower borders; they should be refreshed at least once a day with water, and if the sun be very powerful they will require to be shaded, till they have taken fresh root: those that remain to flower in pots, must be frequently supplied with water, repotting, &c., as they require it. Finish transplanting perennial and biennial plants, sown in spring.

ROSES.—Cutting of Garden kinds may be put off by the middle of the month; insert them firmly in the soil, and cover with a hand-glass—a shady border is the best situation for them. Cuttings of most kinds of Greenhouse plants should now be put off.

CARNATIONS AND PINKS.—Laying the former, and piping the latter, will be required by the end of the month. Seedlings should be planted out singly into pots or open borders. Those Carnations in pots require particular at-

tention in keeping them well supplied with water, and to support the flower stems by tying them to neat green sticks with bass; pipings of the young shoots may still be put in; those cut at the second or third joint make the handsomest plants; they should be kept shaded from the hot sun, otherwise they will soon get scorched and dried up, they should be finished layering by the middle of the month. Pinks may still be propagated by pipings as in June. Auricula plants in pots will require a little water frequently in hot weather taking care not to pour it on the heart of the plant—all dead leaves should be removed—if any of the plants are attacked with the green fly, they should be smoked with tobacco.

RANUNCULUS AND ANEMONE ROOTS.—Should any bulbous rooted plants, as Ranunculuses, Tulips, Anemones, &c., now be past flowering, and their leaves decayed, they should be taken up, well dried, cleaned, and the offsets separated, and put in a cool airy place, till the planting season again commences.—See Articles in Vols. 1. and 2, of the Cabinet.

CAMELLIAS—which have ceased blooming, will now require to be excited by being taken to a higher degree of heat, and frequently syringed, this will induce vigorous shoots and an abundance of flower buds.

CHRYSANTHEMUMS.—See pages 73, 74, and 81, of Vol. I. Plants in small pots should be repotted into larger.

DAHLIAS.—See pages 3, 22, 66, and 95, of Vol. I.; and articles in Vol. 2, and Vol. 3, page 100.

TULIPS.—See page 24, Vol. I.

GREENHOUSE AND STOVE ANNUALS.—Such as have been grown hitherto in small pots, should be repotted into larger for the summer's growth.

AURICULAS—may now be repotted and be placed in a shady, but airy, situation. Transplant seedlings, also of Polyanthuses.

PANSIES—New beds may be made by taking off rooted offsets or by piping, shading them for a few days after removal. Such will bloom profusely at the end of summer.

CAMELLIAS.—If the new shoots have nearly done growing, place the plants in a warm greenhouse, or in a stove at 70 degrees, in order to assist the plants in producing flower buds.

HERBACEOUS PLANTS—in flower beds should regularly be tied up as they advance in growth, not allowing them to grow too far before this attention is given, or many kinds will become unsightly.

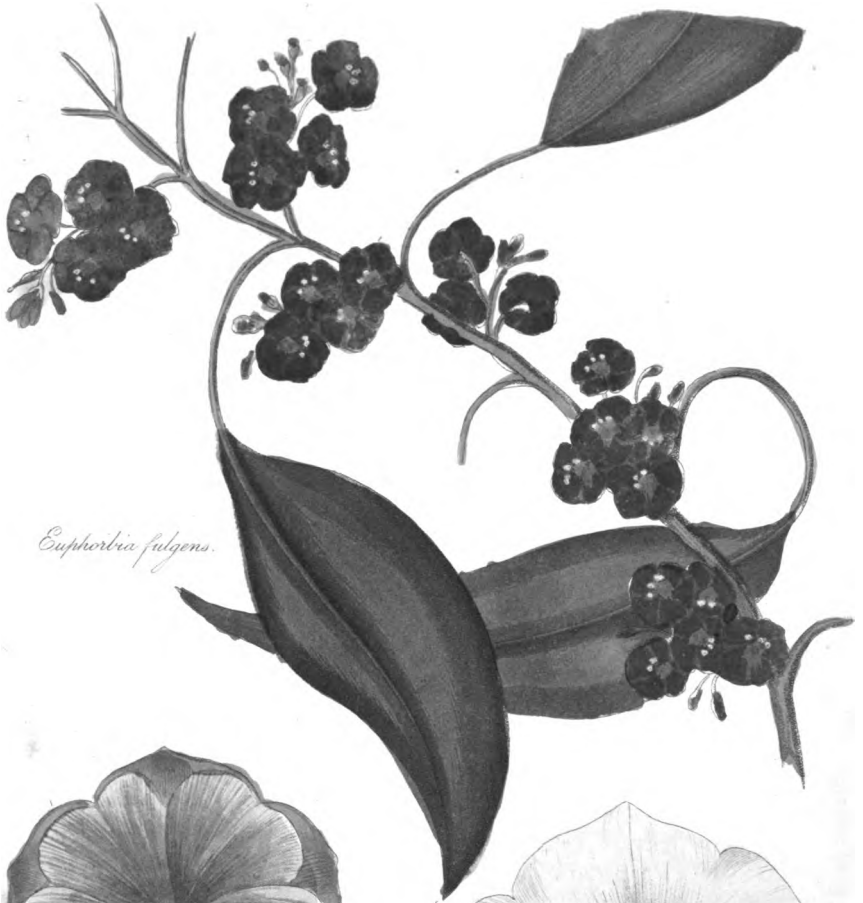
BALSAMS.—See culture of, in Vol. I.

TRIVERANIAS.—See Vol. I.

SEEDS of hardy Biennials, as Sweet Williams, Scabious, &c., may be sown for plants to bloom next year.

THE DOUBLE SCARLET LYCHNIS, &c., &c.—The double scarlet Lychnis, and such like plants, should be propagated by cuttings. Dahlia cuttings will easily take root if placed in a brisk heat. Continue to cut box edgings, and hedges, where it was not done last month. Where it is desired to save seed of Ten Week, Russian, or German Stocks, only allow those single ones to remain, the flowers of which have five or six petals: if such be reserved they will generally produce double flowering plants. Towards the end of the month, Roses may be budded: the first week in August is however considered better. An article is sent on the subject for that month.

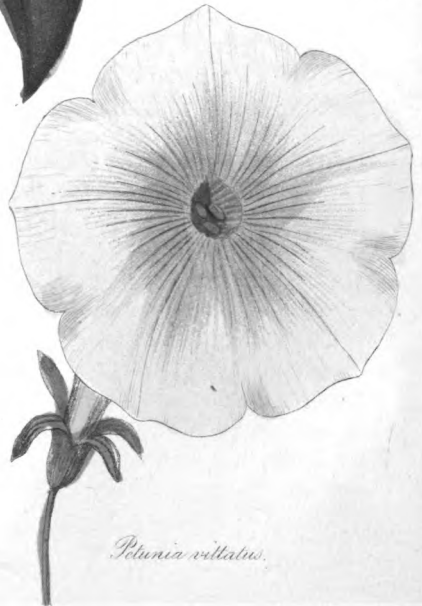
Univ. of
California



Euphorbia fulgens.



Pelunia marginata prasina.



Pelunia vittatus.

THE
FLORICULTURAL CABINET,

JULY, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON THE PROPERTIES OF THE TULIP.

BY MR. JOHN SLATER, ALBION PLACE, LOWER BROUGHTON, NEAR MANCHESTER.

THE properties requisite to constitute a fine Tulip are as follows. The stem ought not to rise less than from thirty inches to three feet and upwards, from the surface of the bed, strong and elastic, so as to shew the flower to the best advantage, which a short weak stem cannot. A flower must not be despised or discarded because it does not rise to the prescribed height, as there are many fine varieties which does not come up to this standard. The cup of the flower should be proportioned to the stem, that is, a tall stem, should support a large flower, and *vice versa*, so as to appear neither too light nor too heavy, composed of six thick and fleshy petals which should run out from the centre at first a little horizontally and then turn upwards, forming almost a perfect cup with a round bottom, rather wider at the top, the three exterior petals should be larger than the three interior ones, and broader at the base. The opinion that the exterior should be larger than the interior (an effect almost at variance with experience) has been copied by all who have attempted to describe a fine tulip, but in my opinion a flower whose petals are equal in size and form; will, when expanded, present the most admirable

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form, and make the nearest approaches to that perfection which all florists imagine, but few witness.

The top of each petal ought to be broad and well rounded and perfectly level; the parts of fructification, as the stamens, anthers, and pericarpium, should be strong and bold, and the filaments free from tinge or stain, as those qualities add much to the appearance of a fine tulip when expanded. The ground colour of the flower at the bottom of the cup in a bizarre, ought to be a bright yellow, and in a byblomen or rose, perfectly white and transparent. In a feathered flower, the feathering should be broad and regular, and go quite round the edge of the petal, and not to break out at the end, and show the ground colour, and terminate in fine broken points toward the centre of the petal elegantly pencilled. The centre of each petal should be quite free from any stripe, spot, stain, or tinge of any kind. The feathering of a fine Bienfail Incomparable, will give the young florist the best idea, for when fine, it is not excelled as a feathered stage flower.

A flamed Tulip must have a beam right up the centre of each petal, as near the colour of the feathered edgings as possible, commencing nearly at the bottom of the petal, and reaching up to the feather at the top of the petal, but not to break through it branching or flaming all the way up on each side of the beam to the feathering at the edge, the feathering at the edges the same as in a feathered flower. The Albion, (or Lortorteseque as it is called) and Rose Unique may be considered as specimens of flamed Tulips. The darkest colours in the bizarres rank the first, brown the second, and scarlet the third. In byblomens, black first, dark purple second, and light purple third. In roses, bright scarlet first, crimson or cherry colour second.

The properties thus described are acted upon at all Floral exhibitions in the northern counties, yet it must be admitted that flowers with bad cups and tinged bottoms are often placed first, in preference to a fine cupped flower. This is owing to the feathering of the flower counterbalancing the other bad properties, whilst the one with a good cup, &c. may be very fine in every respect but the feathering and flaming. The southern florists reject as not worthy a place in their collections, what is considered in those of the northern districts as first-rate stage flowers. The northern florists only, in a very few instances, cultivate what is termed bed flowers. If a flower will not come up to their stan-

dard, it is rejected. They appreciate a Tulip possessing a good cup, &c. but it must have the other properties before enumerated combined; for, instance, Charles the Tenth, Count de Vergennes, Triomphe Royale, Surpasse Catafalque, Old Dutch Catafalque, Captain White, Thalestris, Reine de Sheba, Imperatrix Florum, David, Charbonnier Noir, Louis the Sixteenth, Walworth, and many others admired in the south, are also considered by them as first-rate stage flowers when in a good state. I understand that in the south, a Tulip is called fine when it is a large flower, good cup, and bottom free from the least tinge, even if the feathering and flaming is deficient, whilst the northern florists, in addition to a good cup, and bottom free from tinge, that the Tulip ought to be either regularly feathered, or feathered and flamed.

A Tulip is not considered defective in the south, if it has only a straight beam up the centre of the petals, without its branching to the feather, whilst in the north would be thrown aside as possessing neither the properties of a feathered or flamed flower. Also they prefer a light delicate feather to a heavy one, which is quite the contrary in the north.

Having thus briefly pointed out the differences existing in the judgment of the Tulip in the northern and southern districts, I trust that this article will induce florists to fix one standard whereby all Tulips shall for the future be compared. I would suggest that the properties of Tulips be divided into parts, so many allowed for cup, size, and bottom, and the rest for the marking of the flower. This would, of course, obviate all unpleasantness arising from the northern florists sending them what ranks here as first rate stage flowers, which does not possess the requisite properties for exhibition in the south.

All florists must acknowledge that a good cup and bottom add much to the merits of the Tulip, and I do not doubt from the interest now taking in the raising of seedlings, that in time all tinged flowers will be discarded and discountenanced as stage flowers.

J. SLATER.

ARTICLE II.

ON THE CULTURE OF TROPŒOLUM,

BY MR. JOHN FYFFE, GARDENER TO THE REV. WILLIAM MANSFIELD, MILTON
BRYANT RECTORY, BEDFORDSHIRE.

ALTHOUGH all the Tropœolums are easily grown, some care is required in starting them from bulbs. The general way of treating these plants, is to put them into a little heat, but I have found this mode of treatment to be hurtful to Tropœolum tricolorum, when first exciting it from a dormant state. If the bed is fresh and a strong heat, it is in danger of being scorched, even if you succeed in its starting, as this species is so very tender in the first stage of its growth.

The method which I have found to be most successful in growing the more tender sorts of these interesting plants from bulbs, is to pot them in a mixture of good rotten leaves, peat, loam, and sand; say one part of each, or one-half leaves, one-fourth loam, and one-fourth sand, placing the bulb in the centre of the pot, leaving the crown all exposed on the surface of the pot, and placing the lower extremities in a layer of white sand, which protects it from rotting if overwatered, and to guard more effectually against this, the pot should be well drained, and very little water given; until such time as the bulb is in a growing state the pot should be placed in some airy part of the greenhouse, and a bell glass put over it. If the weather is hot, and much sunshine, a little shade should be put over it during the heat of the day, and the glass must be daily wiped to clear it of the condensed vapour, and left off for a time as in the treatment of cuttings.

The most successful mode of growing Tropœolum pentaphyllum and tricolorum, is from cuttings, in the autumn, winter, or at any season, when the plant shows a tendency to decay; take the tips of each shoot, about three or four joints from the point and put them in sand and leaf mould in equal proportions, mixed well together; if in the winter, place them in the greenhouse covering them with a bell-glass, but if in the spring or summer, in a hot frame, they will strike in a few days, and make fine plants before autumn.

P. S. I am trying an experiment with Tropœolum tuberosum, which, when accomplished, I shall feel a pleasure in forwarding to you, perhaps it may be of use to the readers of the Floricultural Cabinet.

J. FYFFE

(We shall be highly obliged by the favour.—CONDUCTOR.)

ARTICLE. III.

A DESCRIPTIVE LIST OF CAMELLIAS.

BY CAMELLIA.

(Continued from page 30.)

- Thompsonia superba*, double rose, very good.
Triumphans alba, double, white, small pink stripe, fine.
Serratifolia, double, fine dark red.
Pelegrina, double white, dark red spot or stripe, extra fine.
Acutifolia, double red.
Foordii, double light red, fine form.
Carnescens, single, pale red.
Revesii, double, red, small foliage.
Emma, double, pale white, large and fine.
Celestina, double, light rose, fine form, extra
Flavescens minor, double, buff or blush, good.
Egertonia, double, dark red, Warratah form.
Campanulata, double, dark red, very good.
Folia variegata, single striped leaved.
Grunellii, double, white, fine, large, extra good.
Atroviolacea Serni, double, fine red.
Linnea superba, double, dark red, very fine.
Nivea, double white, good.
Parksii, double, red, white stripes, good.
Wiemeriana Serni, double, flesh colour.
Rugosissima, single, red, large and fine
Lady Henrietta, double, rose, mottled.
Alnutii superba, double, light red, good.
Variiegata major, double white, red stripes, very good.
Dianthiflora lineata, double, white, rose stripes.
Lombardii, double, red, white spots or stripes, extra fine.
Gloriosa, double, light red.
Gloriosa alba, fine white, good.
Eclipse rosea Presses, double, blush, red stripes, fine.
Victoria Antiverpensis, double red, white centre, fine.
Lady Grafton, double, light red, good.
Atrococinea, double, dark red, white centre, very fine.
Princeps, double, fine red.
Rueckrii, double dark red, good.

- Carminæa*, double, carmine, fine
Crassinervis Serni, double, light red
Eliza, double, fine white, very good.
White Marratah, Knight's double white.
Lindleyii, double, light rose, good.
Masterii, double, red.
Pictorum rosea, double fine rose, good.
Rubro pleno major, double, red, large and good.
Speciosa rosea, double, fine rose, good.
Helvola, double, red.
Credoca, double, fine red, white spot or stripe, fine.
Thompsonii, double dark red, good.
Eleata Cunninghamis, double, red, very good.
Grandiflora alba, double, large white, good.
Amanda, double, fine red, large flower.
Rosca Denholuis. double, light rose.

(To be continued.)

ARTICLE IV.

ON WINTERING THE CARNATION.

BY AN OLD FLORIST.

As the health and vigour of the Carnation depend greatly upon the method in which it is treated during the winter months, if the following method which I pursue is worthy of a place in your Cabinet, it is at your service. For several years I tried different methods of treatment, and I will here mention one or two of my first attempts to shew how much may be gained by persevering to attain any object you may have in view. After I had potted my layers and they had taken root, I prepared a bed which I considered suitable for my purpose, the sides and ends of which I boarded from eight to ten inches high; at the bottom of this bed I put cinder or rough ashes, filled even with sifted ashes; into this bed I plunged my pots, and made an arch of hoops over them covered with mats to protect them from the inclemency of the weather, during the frosts of winter. The mats were joined together with a pole, sown to the ends of the mats on each side to enable me to roll up the covering which rested on the top of the arch, when the weather was fine, but during severe weather they

were constantly kept down, and always during the winter nights. I found my plants with this treatment, do very well till some time after Christmas, when we had a long continuance of rain, snow, and frost, and all the care I took by supplying extra mats, I could not help the plants being constantly damp, both in grass and roots, they soon began to shew a sickly appearance, the hearts becoming a pale green, and eventually a great many dying altogether, those that survived becoming very weakly, and the flowers of course very diminutive.

After the failure in my last attempt I thought I would try the method of a friend of mine who was supposed to be a Carnation grower of great eminence, his plan was in a great measure similar to the last, with the exception of his being more careful to exclude the external air during severe frosts, and used raised frames, Although the plants were certainly more healthy by following this method of treatment, yet they did not produce such fine flowers as I had anticipated, perhaps it was only the mild winter that gave them the superiority over the others. After having tried various experiments repeatedly for several years, altering my mode of treatment each year, I found that the Carnation was a very hardy plant, and would, if placed in a southern aspect, stand in the open border during the severest winters in this climate; it is a plant of all others, that delights in a free, dry, and brisk circulation of air.

Being thus convinced of its perfect hardy nature, and seeing the bad effects resulting from nursing and confinement, having observed that when the plants were placed in an airy situation they throve much better than when they were confined, I erected a glazed roof about eight feet in width and between fifteen and twenty in length, just as it suited my convenience; this roof I had supported with uprights, about nine feet high in the front, and seven at the back, perfectly open on all sides, so that a free current of air might pass through it; the front or higher part faces towards the south; from the back uprights, about four feet from the ground, I caused to be made a series of shelves, wide enough to hold two pots, and graduate them to about three feet high, the lower shelf being as wide as convenient, by this means I have a complete command of my plants.

The layers, when taken off, I frame for a week or ten days closely, or until they are well-rooted, and appear healthy, when I take them out and stage them, by this mode of treatment they

are exposed to all weather, have a free circulation of air, and at the same time they are protected from rain or snow, and what is of more consequence, they are above the influence of the damps and dews which greatly injures them when nearer to the earth. By thus treating my plants, they are never affected by any cankered spots on the leaves, and always preserve a beautiful healthy green appearance.

When the weather is mild, during the winter, I frequently syringe them, or water with a fine rose in the morning, if necessary, but if the winter should be very severe, and frost and snow prevail for a length of time, I always protect them by nailing mats or canvas to the uprights all round the stage, but as soon as the weather becomes more genial, it is immediately removed, so that the plants may have the free circulation of the air as soon as possible. If snow or rain is suffered to fall upon them, and afterwards becomes frozen, seriously injures them, and should, on that account, be carefully guarded against. I found by this method the time saved is immense, there is no lifting up and down of lights, no closing or unclosing of frames, no stooping or trouble in the regulation of the plants, as they are easily removed to any situation in which I choose to place them.

This covering answers two essential purposes, that of wintering and also blooming under, being a great protection to the flowers when the weather is wet. It is for this purpose that it has the elevation stated, but others may find a variation requisite, but that of course has nothing to do with the plan which I consider to be the best mode for wintering this beautiful flower. If the reader of this article be a cultivator or amateur, by following this method of treatment, he will be fully compensated for the trouble and expense he might have been at, by always having a fine bloom of that most beautiful flower.

AN OLD FLORIST.

ARTICLE V.

OBSERVATIONS ON THE WEEVIL (AUTHONOMOUS POMORUM).

BY R. T. W. T.

The cause of blight has been frequently ascribed to the prevalence of certain winds, whereas naturalists have traced all the mischief arising therefrom to the attacks of various kinds of in-

sects. The following account in the Entomological Magazine, of the Weevil, which infests apple trees, is so graphic, that I cannot resist transcribing it for the edification and amusement of the numerous readers of your periodical.

“ By carefully examining the bark of an apple-tree in the winter, you will occasionally find a pretty little beetle in the cracks, which, immediately on being touched, shams dead, and drops on the ground, where you will not, without great difficulty discover it on account of its great similarity of colour; you must therefore hunt till you find another. This time as soon as you see him, place your hand below him, then touch him lightly with a little bit of stick, and he will drop into your open hand; his own scheme for self-preservation will beat him. Now roll him into a quill or pill-box, and take him home. Place him in a sheet of writing paper, and you will soon see his shape. The head is furnished with a trunk, from which, on each side springs a feeler bent at right angles forward, so that the trunk altogether looks to be three-pronged like a trident. The thorax and wing cases are brown, beautifully mottled, and an oblique line on each, pointing towards the meeting of the wing cases, is much lighter coloured and gives the little beetle the appearance of having a letter V obscurely chalked on its back. Its size altogether is rather less than a hemp seed. With the first sun shiny day in March, these Weevils leave their winter-quarters, crawl up the trunk, and along the twigs, perch themselves so that they might receive the full benefit of the sun's rays, and plume themselves with their legs and feet all over, trident and all, just in the same manner that a cat washes her face with her paws; then they put out one leg at a time, cramped, no doubt, by the long confinement; they lift up their wing cases, and unfolds two large transparent wings, though twice as large as the wing-cases, were neatly folded up and hidden under them, and then launching themselves into the air, they go roving about the orchards and gardens, their little hearts in an ecstasy of freedom, and love, and happiness. It is not long before each find a suitable mate: no relations raise objections, and the nuptials are consummated without further delay. Now I will allow the gentleman Weevil to go his way in quest of a new lover, and other conquests; and in the meantime I will observe the conduct of the lady. By the time the female is ready for the important task of depositing her eggs, the spring has considerably advanced, the apple buds have burst, and the little

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bunches of blossoms are readily to be distinguished. The Weevil soon finds them out, and selecting a blossom every way to her mind, commences her operations. The beak or trunk, before alluded to, is furnished at its extremity with short teeth, with these she gnaws a very minute hole in the calyx of the future blossom, and continues gnawing until her trunk is plunged in up to her eyes; the trunk is then withdrawn, and the hole examined with the nicest scrutiny, by the introduction of one of her feelers or outer prongs of her trident. If it seem to require any alteration, the trunk goes to work again, and again the feelers; at last, being fully satisfied that the work is well accomplished, she turns about, and standing with the extremity of her abdomen over the hole, thrusts in her long ovipositor, an instrument composed of a set of tubes, retractable one within the other, and then deposits a single egg (never more) in the very centre of the future flower. Another examination with her feelers now takes place, and when she is satisfied that all is right, away she flies to perform the same operation again and again, never tiring while she has an egg to lay. The bud continues to grow like the other buds, the little perforation becomes invisible. By and bye the egg bursts, and out comes a little white maggot, with neither legs nor wings, which, directly it is hatched begins to devour the young tender stamens, next to these the style is attacked, and eaten down to the fruit, the upper part of which is quickly consumed; the maggot is now fully fed, casts its skin, becomes a cysallis, and lies perfectly still. Up to this time the blossom has continued healthy, no trace of this enemy being to be discovered without, but when the neighbouring blossoms are expanding their petals to the genial breath of spring, those of the mutilated bud remain closed, and retain the arch ballon-like appearance of a bud about to burst. For a few days they preserve their lovely pink colour, and then by degrees fade to a dingy brown. In this state they remain, until the other apples are well knit, and then the damaged blossoms, by their decided contrast appear very conspicuous. On opening these brown or rather rust coloured blossoms, about the 10th or 15th of June, the cysallis will be found to have changed to a perfect beetle, similar to its parent above described, which, if it had been left to itself, would, in a few days, have eaten its way through the weather-beaten case of dried petals, and left its prison house, flying about to take its pleasure, until the chilly winds in autumn should

drive it to its winter habitation, under the bark ; and in the next spring the whole round of operations, through which we have watched its parent and itself, would be performed with the same unvarying unerring instinct. The cloudy misty east wind in which our gardeners see the blight, is the very weather of all least favourable to these Weevils. The fine, clear, sunny days of March are most favourable to them.

The tom-tits, sparrows, bullfinches, and other birds, which at this season of the year, are persecuted with relentless hostility by the farmer and gardener, live during these months solely on those Weevils and similar little insects ; and consequently are the only check on their increase which we possess ; so that in the first investigation of blight, we see how a little prejudice, superstition, and ignorance, tend to increase the injury they dread.

ARTICLE VI.

OBSERVATIONS ON STRIKING CUTTINGS IN PHIALS OF WATER.

BY AN OLD SUBSCRIBER.

I HAVE profited by a hint in one of your Numbers, about striking cutting in phials of water, plunged in a slight hot-bed, as follows: Melon, Cucumber, Pot-herbs, Geraniums. Myrtles, Antirrhinum, Chrysanthemum, Rose, Carnation, Pink, double Rocket flower stalks, double Furze slips, and a few others. The Dahlia I did not succeed with, the Furze I had tried various ways without success, before I found young top shoots of it slipped, do the best I could ; I shall make a more extended experiment on the method this next year, having, owing to illness, begun late in the season.

AN OLD SUBSCRIBER.

(We shall be glad of the results being communicated for insertion in the Cabinet.—COND.)

ARTICLE VII.

ON WATER AND WATERING PLANTS.

(Continued from page 136.)

BUT though a tract of land may happen not to contain matter proper for the constitution of some one particular kind of plant, yet it may for several others, and those much differing among

themselves. The vegetative particles are commixed and blended in the earth, with all the diversity and variety as well as all the uncertainty conceivable.

It is not possible to imagine how one uniform, homogeneous matter, having all its principles or organical parts of all the same substance, constitution, magnitude figure, and gravity, should ever constitute bodies so egregiously unlike, in all those respects, as vegetables of different kinds are; nay, even as the parts of the same vegetable; that one should carry a rosinary, another a milky, a second a yellow, a third a red juice in its veins; one afford a fragrant, another an offensive smell; one be sweet to the taste, another acid, ascerb, austere, &c. that one should be nourishing, another poisonous; one purging, another astringent. In fact, that there should be that difference in them in their several constitutions, makes, properties and effects, and yet all arise from the very same sort of matter, would be very strange. And so note, that by the bye, this argument makes equally strong against those who suppose that mere water to be the matter out of which all bodies are formed.

The Cataputia in the glass F, received but very little increase only three grains and a half, all the time it stood, though two thousand five hundred and one grains of water had been spent upon it; he will not say the reason was, that water does not contain in it matter fit and proper for the nourishment of that peculiar and remarkable plant. No, it may be the water was not a proper medium for it to grow in; and we know that there are many plants that will not thrive in it.

(To be continued.)

EXTRACT.

ON THE AGAVE AMERICANA. GREAT AMERICAN ALOE.

The Aloe, that patriarch of the flowers, which "blooms once in a hundred years, and whose blossom then are developed with such rapidity, as to occasion an explosion resembling the firing of a cannon," is the theme of a tale that all have heard from their infancy, and to which many still give credence. In regard to the age in which the plants flower, that is extremely uncertain, and depends much upon the health of the individuals, and the degree of heat to which they have been exposed. Many live to a great age; and appear never to flower at all. In warm climates

twenty-five or thirty years, and probably a much shorter period is sufficient to bring them to perfection. The most remarkable instance on record of the early flowering of the American Aloe is that detailed by Mr. Hawkins in the Transactions of the Horticultural Society. This took place in the open ground, at Woodville, near Salcombe, Devonshire, the residence of the late James Cole, Esq., and considering that the plant is a native of South America, more especially within the tropics, it tells more the mildness of that part of England, than any circumstance that could be mentioned. The Aloe was planted in 1804, when it was only about six inches high, and then only two or three years old, within a few yards of the sea shore, yet elevated forty or fifty feet above the level of the water, where it had never any cover, shelter, manure, or cultivation. In 1812, it was more than five feet, and it grew during that summer, nearly the eighth of an inch daily. In 1820, it measured between ten and eleven feet in height, and covered a space, the diameter of which was sixteen feet; its leaves close to the stem, being nearly nine inches thick. In the beginning of June of that year, a stem made its appearance resembling a head of asparagus of an immense size, which, during six weeks grew at the rate of three inches a day, and then gradually diminished in progress; but not till it had attained the elevation of twenty-seven feet from the ground, which was at about the middle of September. The two lowest branches first showed flowers on the 3d September, and others came out in succession from the beginning of October to the end of November, when they all began to lose their colour and decay. There were upwards of forty flowering bunches, each with between three and four hundred flowers, making in all about sixteen thousand blossoms. As the stem grew, the leaves began to wither; and it appears the plant then died. Its age was twenty-one years: the height from the earth when in blossom, twenty-seven feet: the lateral branches, beginning at twelve feet from the ground, were in number forty-two. the lowest projecting two feet from the stem, and gradually diminishing to about a foot and nine inches in length at the top; the stalk where the side branches commenced was twenty inches round, or near seven inches in diameter, gradually tapering to the apex; the branches of flowers (or at least those next the bottom, were from a foot to fourteen inches in breadth.

Although various instances are on record of this plant having blossomed when confined in a pot or tub, and sheltered from the severity of our climate, yet the occurrence is so rare, as to excite a great deal of interest in the neighbourhood where such an event takes place; and I know not whether the variegated leaved variety, which is not uncommon in collections, blossoms with equal readiness; not having myself heard of the flowering of that kind, till that which is here represented threw up its flowering stem in the summer of 1836, at Aiken Head, the seat of Mrs. Gordon, where

the garden is under the management of Mr. Lambie. In this instance, the whole height of the flower-stalk, was only the half of that of Mr. Yates; and the blossoms were few indeed in comparison; yet they came to great perfection, and the plant made a very noble appearance.

But the great size and strange form of this plant and the rarity of its blossoming in our collections, are not the only circumstances which recommend the American Aloe to attention. It yields a drink and a fibre of such extensive use in the New World, that it is reckoned, next to the maize and the potatoe, the most valuable of all products which Nature has lavished on the mountain population of æquinoctial America; and no where, perhaps, is it held in greater esteem than Mexico, according to M. Humboldt, from whose "Essai politique sur la Royaume de la Nouvelle Espagne," I extract the following interesting particulars on this subject;

"Scarcely," says this distinguished Philosopher, "does there exist a tribe of savages in the world, who are not acquainted with the art of preparing some kind of vegetable drink. The wretched hordes which wander in the forests of Guiana, extract from the fruit of different palms, a beverage, which is as palatable as the European orgeat. The inhabitants of Easter Island, confined to a mass of barren springless rocks, mingle the expressed juice of the sugar cane with the briny water of the sea. Most civilized nations derive their drink from the same plants as afford them food, and whose roots and seeds contain the saccharine principle mingled with the farinaceous. In Southern and Eastern Asia this is rice; in Africa and Australia the roots of ferns, or of some arums; while in the north of Europe, the cerealia afford both bread and fermented liquors. Few are the instances of certain plants being cultivated solely with a view to extract beverages from them. Vineyards only exist west of the Indus; in the Old World, and in the golden age of Greece, the culture of the grape was confined to the countries lying between the Oxus and the Euphrates, in Asia Minor, and in Western Europe. In other parts of the world, nature certainly produces several species of wild vine; but no where has man attempted to collect them around them, and improve their quality by cultivation.

"The New Continent presents the instance of a people who derived their drinks not only from the farinaceous and sugary substance of maize, manioc, and bananas, or from the pulp of some species of mimosa, but who cultivated a plant of the pine apple family for the express purpose of converting its juice into spirituous liquor. In the vast plains in the interior of Mexico, there are large tracts of country where the eye discerns nothing but fields planted with the pitted or maguay (*Agave Americana*). This plant, with its leathery and thorny leaves, and which, with the cactus *opuntia*, has become naturalized ever since the sixteenth century, throughout Southern Europe, in the Canary Islands, and on the African coasts, imparts a most peculiar character to the Mexican landscape. What can be more strongly contrasted than a field of yellow wheat, a plantation of the glaucous agave, and a grove of bananas, whose lustrous leaves always preserve their own tender and delicate hue of green! Thus does man, in all latitudes, by introducing and multiplying the various vegetable productions, modify at his pleasure the aspect of the country around him!

"In the Spanish colonies there are several sorts of maguay deserving of careful cultivation; some indeed, which, by the length of the stamens, the mode of division of the corolla, and form of the stigma, may, perhaps, belong to separate genera. The maguay or metl, which is grown in Mexico

consists of several varieties of the American aloe (*Agave Americana*), so common in gardens, which has yellow, fascicled, and straight flowers, with stamens twice as long as the divisions of the corolla. This must not be confounded with the *A. cubensis* of Jacquin, (*A. mexicana*. Lamarck, *A. odorata*, Persoon,) which has been erroneously supposed to be the metl or maguay of Mexico, but which is extensively grown in the Caraccas, where it is called maguay de cocuy.

“These plantations extend wherever the Aztèque language is spoken; they cease to the north of Salamanca, and are seen in the greatest luxuriance in the valley of Toluca and the plains of Cholula. There the agave plants are set in rows, distant fifteen decimetres from one another. The juice or sap, commonly called the honey, from its abundant sweetness, is only afforded when the flowering stem is about to appear, so that it is of great importance to the cultivator to ascertain precisely at this period. Its approach is indicated by the direction of the root-leaves, which the Indian always watches and examines with great attention, and which, formerly recurved, suddenly take an upward direction, and approximate as if to enclose the incipient flower stalk. The bunch of central leaves (corazon, the heart), next assumes a livelier green, and lengthens considerably; indications which the natives assure me hardly ever fail, and to which may be added several other less striking appearances in the general aspect of the plant. Daily does the cultivator examine his agave plantations, to watch those individuals which promise to bloom, and if he himself entertains any doubt, he appeals to the vilage sages, the old Indians, whose long experience gives them an unerring precision both of touch and eye.

“At eight years old or thereabouts the Mexican agave generally shows signs of inflorescence, and then the collection of the juice for making pulque begins. The bunch of central leaves, or corozon, is cut through, the incision gradually enlarged and covered by the side leaves, which are raised up and tied together at their tips. In this cleft the sap of those parts which were destined to form and nourish the gigantic flower stem is deposited, and this vegetable spring flows for two or three months, and may be tapped three times a day. The quantity of sap is enormous; and the more surprising, as the agave plantations are always made by choice on the most sterile soil, frequently on mere shelves of rock, scantily covered with vegetable earth. Each plant is calculated to yield about one hundred and fifty bottles; and at Pachuca, the value of a maguay, near flowering, is from twenty to twenty five francs, or five piastres. Still, as with the Vine, which may bear a greater or less quantity of grapes, the produce is apt to vary, and cannot be precisely calculated. Instances have, however, been known, of a parent bequeathing a plantation of maguay worth from seventy to eighty thousand piastres,

“The cultivation of the agave is attended with many real advantages above that of maize, wheat, or potatoes, as this sturdy harsh, and fleshy-leaved plant is uninjured by the occasional drought, frost, and excessive cold, which prevail in winter on the lofty Cordilleras of Mexico. It dies after having flowered, or when the central bunch of leaves is cut away, and then a number of suckers spring from the parent root, which increase the plant with extraordinary rapidity. One acre of ground will contain from twelve to thirteen hundred plants of maguay, of which it may be calculated that one in every thirteen or fourteen is always affording honey. Thus the proprietor who sets from thirty to forty thousand maguays is sure of leaving his family rich; though a man must possess patience and resolution to devote himself to cultivating what only becomes productive after an interval of fifteen years. In good soil, the agave blossoms at the end of five years; while in poor ground nothing can be expected under eighteen years; and any artificial means by which the flowering state is unnaturally accelerated, only destroy the plant prematurely, or materially lessen the amount of sap.

"The honey, or juice, is of an agreeably bitter sweet flavour, and ferments readily from the sugar and mucilage with which it abounds, this process being hastened by the addition of some old and acid pulque. This vinous liquor resembles cider, but diffuses a disgusting smell of decayed meat, which Europeans have some difficulty in overcoming. Those, however who have accustomed themselves to the beverage, consider it as strengthening, stomachic, and particularly nutritive, recommending it, peculiarly, to persons of a meagre habit; and I have seen many whites, who, totally discontinuing water, beer, and wine, drink only the pulque, like so many Mexicans. The cause of the fetid smell of this liquor is variously attributed to the mode of preparation, the manure used for the soil, and the different materials in which the fermentation is carried on; and I only regret, that I was unable, for want of proper apparatus, to ascertain this curious point in vegetable chemistry. By distillation a most intoxicating liquor is obtained from pulque, which is called Mexical, or aguardiente (fire water) of Maguay. The plant which is preferred for this purpose, appeared to me smaller, and its foliage more glaucous than the common kind; but not having seen it in blossom, I cannot pronounce it to be specifically distinct.

"But not only is the Agave the Mexican vine, but it holds the place of Asiatic hemp and the Egyptian paper-reed (*Cyperus Papyrus*). The antient manuscripts of this country consisted in hieroglyphics, often inscribed on a paper made of numerous layers of the Agave leaf, macerated in water, and glued together in the same manner as the pith of papyrus and the bark of the paper mulberry of the Pacific Isles. I brought away many antient specimens of this fabric, some as thick as pasteboard, others as thin as fine India paper, which are the more interesting, as all the Mexican records hitherto discovered and still preserved at Rome and in Spain, are inscribed on the skins of the Mexican Deer. No thread is so much prized by physicians in Europe as that which is extracted from agave leaves, which are sometimes ten feet long, fifteen inches wide and eight thick, because it is not liable to twist; though the fibre of the New Zealand flax (*Phormium tenax*) excels it in tenacity. Twine, thread and rope are made of it; the latter is employed in the mines, and on the western coast, for rigging the ships. The common juice of the plant, or that which it yields when not about to blossom, is highly caustic, and useful for cleansing wounds; while the thorny points of the leaves, like those of the cactus, used to serve the Indians for nails and needles. The Mexican priests were accustomed to inflict wounds in that manner on their breasts and arms by way of expiation, as do the Buddhists in Hindoostan."

"Rarely as the American aloe blossoms in this part of Europe, a friend of mine, who lately visited the shores of the Mediterranean in the north of Spain, tells me that the brown withered flowering stems often stand there as tall, strong and thick as the masts of small vessels in a harbour, and are sometimes used for thatching. The height of this stalk varies from twenty to forty feet, and expands like a rich candelabrum, its arms clustered with golden yellow flowers. An extract from the foliage, when made into balls, will lather water like soap; and finally, the centre of the flower-stalk cut longitudinally is by no means a bad substitute for the European razor-strop owing to the minute particles of silice forming one of its constituents, in the same way as the Dutch rushes, or stems of the horsetail (*Equisetum*) are employed to polish ivory and brass. My friend William Christy, Esq. when writing from Guernsey last autumn (1837) says, "in this delightful climate, an agave Americana is just coming into flower, in the street of St. Pierre Port. It is twenty five years old, and already thirty feet high; and has always stood in the open air, summer and winter, without any protection."

[Bot Mag.]

REVIEW.

The Fruit, Flower, and Kitchen Garden, &c. By P. NEILL, L. L. D., &c., &c.—We made insertion of this publication in our number for May, and promised further to notice it. The work contains many more remarks upon Fruits and Vegetables, than upon Flowers. The most interesting, connected with the latter, we present to our readers the following extract, on the Flower Garden.

THE cultivation of flowers, if not the most useful, is at least one of the most pleasing occupations of the horticulturist, and has generally shared largely in his attention. It is probable, that at first, flowers, as objects of curiosity, were confined to a few patches or borders in the garden, as is still the case in many old places; but in the progress of the art, and the diffusion of taste, separate departments were allotted to them under the name of Flower Gardens. After some general remarks on style and situation, we shall treat of the component parts of flower gardens, their various decorations, and of floriculture.

The designing of flower gardens unquestionably belongs to the fine arts, involving in it, the exercise of invention, taste, and foresight. Its principals are more vague and evanescent than those of any of the sister arts. The hand of the designer is not here guided by the imitation of Nature, for his work is wholly artificial in its arrangements and appliances; neither does utility come in, as in architecture, to supply a form and frame-work, which it is the artist's part to adorn. "As flower gardens," says Mr. Loudon, the best authority on this topic, "are objects of pleasure, the principal which must serve as a guide in laying them out, must be taste. Now, in flower gardens, as in other objects, there are different kinds of tastes; these embodied are called styles or characters; and the great art of the designer is, having fixed on a style, to follow it out unmixed with other styles, or with any deviation which would interfere with the kind of taste or impression which that style is calculated to produce. Style, therefore, is the leading principle in laying out flower gardens, as utility is in laying out the culinary garden. As objects of fancy and taste the styles of flower gardens are various. The modern style is a collection of irregular groups and masses, placed about the house as a medium, uniting it with the open lawn. The ancient geometric style, in place of irregular groups, employed symmetrical forms: in France, adding statues and fountains; in Holland, cut trees and grassy slopes; and in Italy, stone walls, walled terraces, and flights of steps. In some situations these characteristics of parterres may, with propriety, be added to, or used instead of the modern sort, especially in flat situations; such as are inclosed by high walls; in towns, or where the principal building or object is in a style of architecture which will not render these appendages incongruous. There are other characters of gardens, such as the Chinese, which are not widely different from the modern; the Indian, which consists chiefly of walks under shade, in squares of grass; the Turkish, which abounds in shady retreats, boudoirs of roses and aromatic herbs; and the Spanish, which is distinguished by trellis-work and fountains; but these gardens are not generally adapted to this climate, though, from contemplating and selecting what is beautiful or suitable in each, a style of decoration for the immediate vicinity of mansions, might be composed preferable to any thing now in use." It may, however, be remarked, that the

flower garden properly so called, has generally been too much governed by the laws of landscape gardening, and these often ill-understood, and misapplied. In the days of "clipped hedges and pleached alleys," the parterres and flower-beds were of a description the most grotesque and intricate imaginable. At a subsequent period, when the natural and the picturesque became the objects of imitation in the park, there appeared the most extravagant attempts at wildness in the garden. The result has been equally unfortunate. It is not meant that when there are merely a few patches of flowers by way of foreground to the lawn, they should not be subordinated to the principles which regulate the more distant and bolder scenery; but wherever there is a flower garden of considerable magnitude, and in a separate situation, we think it should be constructed on principles of its own. In such a spot, the great object must be to exhibit to advantage the graceful forms and glorious hues of flowering plants and shrubs; and it is but seldom that mere elegancies in the forms of compartments, and other trickeries of human invention, can bear any comparison with these natural beauties. To express the peculiar nature of garden scenery, as distinct from the picturesque in landscape, Mr. Loudon has invented the term *gardenerique*; and, whatever may be thought of the term itself, it is very desirable that the distinction should be preserved.

Two varieties of flower gardens have chiefly prevailed in Britain; one in which the ground is turf, and the pattern, so to speak, is composed of a variety of figures cut out of the turf, and planted with flowers and shrubs; and another, when the flower-beds are separated by gravel walks, without being dispersed with grass at all. The choice of one or other of these varieties ought greatly to depend upon the situation. When the flower garden is to be seen from the windows, or any other elevated point of view, from which the whole or the greater part of the design may be perceived at once, perhaps the former should be preferred. Where the surface is irregular, and the situation more remote, and especially where the beauty of flowers is the chief object of contemplation, the choice should probably fall on the latter. This variety, too, seems preferable, on the principle of contrast, where there are large lawns in the outer grounds, in order that kept (or smoothly mown) grass may not be found every where.

Respecting the situation of the flower garden, no very precise directions can be given, as it must be influenced by the size of the domain, the nature of the lawns, and the site of the mansion to which it is attached. Generally speaking, it should not be at any great distance from the house; and in places where there is no distant view of importance, it may be constructed under the windows. In retired scenes, it is delightful to step out of the drawing-room into compartments of flowers, in the vicinity of a greenhouse or conservatory. On the other hand, when the park is spacious, and the prospects extensive and picturesque, it is perhaps better that the flower garden should be at some distance, but not more than a quarter of a mile, out of sight of the house, and with an easy access in any sort of weather; an arrangement which would give an agreeable termination to a short walk, a desirable matter in most cases, for it has been often remarked that many parts of extensive grounds remain unvisited, because they afford no remarkable object to attract the attention.

The particular form of a flower garden is equally beyond the inculcation of specific rules. Indeed, it may be of any shape, and, except where the dimensions are extremely limited, the boundaries should not be continuously visible. The taste of the proprietor or designer, and the capabilities of the situation, must determine not only the external configuration, but also the arrangement of the interior parts. By judicious management, it may be made to pass through shrubbery, gradually assuming a more woodland character, and groups of trees, into the park on the one hand, and into the kitchen garden or orchard on the other.

(To be Continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. CATLEYA PUMILA.
- Dwarf.*
- [Bot. Mag, 3656.

ORCHIDÆ. GYNANDRIA, MONANDRIA,

This very pretty flowering species was received from John Allcard, Esq. from Esequibo, and it has bloomed in the collection of that gentleman last year. The plant is of a very dwarf habit, but the flowers are large in proportion, each being about three inches across. They are of a beautiful bluish purple colour.

2. DIANTHUS BISIGNANI.
- Prince Bisignano's Tree Pink.*
- Bot. Reg. 29.

SILENACEÆ. DECANDRIA, TRIGYNIA.

A native of the coasts of Calabria and Sicily. It is common on rocks about Palermo. In this country it flourishes best if kept in the greenhouse. The plant being shrubby, and blooming freely, renders it peculiarly interesting. Each bloom is simple, about an inch and an half across, of a beautiful rosy pink colour. The plant would make a fine show in the open border during summer, and might be taken up in Autumn, and be preserved in winter in the greenhouse.

3. EPACRIS MICROPHYLLA.
- Small leaved.*
- (Bot. Mag. 3658.

EPACRIDÆ. PENTANDRIA MONOGYNIA.

This very neat species is cultivated in the Edinburgh Botanical Garden, where it had been sent by Mr. Westland, Dorking, Surrey. The foliage is very minute, and resembles in habit *E. pulchella*. The plant is a profuse bloomer, and its numerous white flowers produce a pleasing effect,

4. FUNCKIA ALBO-MARGINATA.
- Variegated.*
- †

HEMEROCALLIDÆ. HEXANDRIA MONOGYNIA.

A native of Japan, probably brought from thence by Dr. Siebold. It has bloomed in the Glasgow Botanic Garden. The flowers are produced on a long raceme, twelve or fourteen upon each. Each flower is from three to four inches long, of a lilac purple colour, edged and streaked with white. *Eunckia*, so named in compliment to Mr. H. C. Funck, an apothecary of Gefreez in Germany.

5. GESNERA FACIALIS.
- Gaping flowered.*
- (Bot. Mag. 3659.

GESNERIACEÆ. DIDYNAMIA ANGIOSPERMIA.

A native of Brazil, which has bloomed in the stove at the Glasgow Botanic Garden. The flowers are produced numerously, each raceme having a dozen or more. The corolla is of a rich velvety scarlet outside. The lip white and thin and clouded with dark purple. It is a very handsome flowering species.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON RAISING THE *TROPEOLUM TRICOLORUM* FROM SEED, &c.—Having obtained a plant of the *Tropeolum Tricolorum* three years ago, I succeeded in blooming it to the admiration of all who saw it. The plant produced upwards of a dozen fine large seeds, very different from those I bought of the London seedsmen, which were small and withered, and which soon rotted in the soil, from which I never raised one plant, and as far as I can learn not one of my neighbours either; the seeds produced last season, alluded to, I sowed in fine sandy earth as soon as gathered, but to my great disappointment none of them have vegetated yet, but on examining the pot in which they were sown, I find the seeds very fresh. Now, Sir, if you or any of your numerous correspondents, would be so kind at the earliest opportunity, to let me know what mode of treatment these seeds want, as I am very anxious to increase my stock of so handsome a plant; you would do a service I have no doubt to the public generally, as it seems unknown to most of the propagators how to manage this most splendid of plants, and would also confer a very great favour on a young amateur.

Whitby, May, 24th, 1838.

ON PLANS OF FLOWER GARDENS, &c.—Having been a constant reader of your valuable little book from its commencement, and had some time ago seen some plans of Flower Gardens; I was led to hope that you would have continued to devote a page or so occasionally to the same purpose, I certainly think a plan, not of Flower Gardens only, but of small Pleasure Grounds, both public and private, would be very acceptable to a great portion of your subscribers.* (Query 2d on the striking Geraniums, &c.) I shall also esteem it a favour if you or any of your readers will inform me the best method of propagating the *Grythima Laurifolia*, also the best time to strike cuttings of Geraniums, so as to have them in bloom in the month of May, and not drawn up weak; I struck nine last July, but they are now very much drawn up and rather unsightly as the leaves are decaying, although I have given them as much air as the weather would permit of, and have not had fire more than I was obliged to have; shall also be glad to have your opinion on Dr. Arnot's Stove for Heating Greenhouses, &c.; by condescending to answer the above in your Floricultural Cabinet as early as possible will greatly oblige

AN OLD SUBSCRIBER.

April 9th, 1838.

*[Plans are in the hands of our Engraver, and some will appear in successive Numbers.—CONDUCTOR.]

ON THE FEATHERED HYACINTH.—Will you or any of the numerous readers of the Cabinet, inform me the reason of the flower spikes of the feathered hyacinths dwindling and dying away before they expand. I have a great many which we call feathered hyacinths, and I plant the bulbs in rich light soil, they grow very strong and have strong flower stalks, but always dwindle away before they bloom. I have not had any to bloom for these last two years. I shall be glad to be informed through the medium of the Cabinet how to get them to bloom next year

HYACINTHUS.

ON LOAMY SOIL, &c.—Can you or any of your readers give me the definition of the word "Loam," does it mean merely the natural soil, varying in different localities, or does it always imply something clayey or soapy in the soil. No one hitherto can tell me what "Loam" is?

ECCLES. NORF.

REMARKS.

ROYAL BERKS HORTICULTURAL SOCIETY;

Under the Illustrious Patronage of the Queen, the Queen Dowager, and the Duchess of Kent. At the annual general Meeting of this Society, held at the Town Hall, Wallingford, on Tuesday last: Edward Wells, Esq., Mayor, in the chair. The routine business of the day having been finished, the following distribution of prizes, &c. for the last year took place.

	£.	s.	d.
Prizes awarded to Members	73	8	6

COTTAGERS.

Prizes awarded for productions	14	6	6
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PREMIUMS FOR SUPERIOR GARDENS, VIZ:—

* The Duchess of Kent's Premium, to John Ford of St. Mary's, Wallington.	5	0	0
* W. S. Blackstone, Esq's Premium, to Robert Francis of St. Peter, Wallingford	2	2	0
* Extra Premium, by the Society, to Robert Francis of St. Leonard, Wallingford	2	2	0
* Miss Blackstone's Premium, to William Bartlett of St. Leonard, Wallingford	1	1	0
* John Marshall, Esq's. Premium, to John Hester of St. Peter's, Wallingford	1	1	0
E. H. Payne, Esq's. Premium, to George Durbridge of Dorchester	1	1	0
Minor Premiums by the Society amounting to	18	11	0
Premiums by Do., for superior management of Bees	2	0	0
Total	£120	13	0

Those marked thus (*) are renting allotments of W. S. Blackstone, Esq., M. P.

ON CLIANTHUS PUNICEUS.—“In the South of England this splendid Plant bears the winters with impunity, and in Devonshire and the Isle of Wight fully authorises the generic name given to it by the learned Solander, (Flower of Glory.) It was discovered by Sir Joseph Banks, in New Zealand, in the northern interior, in 1769, and again by the Missionaries in 1831. Mr. Curtis, who has raised numerous plants of it in his extensive nursery grounds at Cayen Wood, has been furnished with the following particulars respecting its introduction, &c., to this country, by Mr. Vaux, of Ryde, Isle of Wight, where the plant grows luxuriantly, and blossoms freely in the open air without the slightest protection. Mr. Richard Davis, Missionary Catechist, at New Zealand, sent the seed of *Clianthus puniceus* to the Rev. John Noble, Colman, Terrace, Ryde, who sowed it as soon as it was received, in the autumn of 1831. In the following spring Mr. Colman had several fine plants. In the autumn of 1832 some of the plants had indications of blossoms forming; and in the spring, or rather summer, of 1833, they flowered most beautifully, and produced seed vessels, one of which was forwarded to the London Horticultural Society, and engraved in the transactions of that valuable body. The propagation is extremely simple, cuttings strike readily under a hand glass in any soil, indeed when any bud of the growing plant touches the ground it will take root like a *Mimulus*, or like *Verbena Melindres*, the cuttings appear to succeed equally well, whether stripped off

or cut under a joint, and I have not found any difference as to ripened or green shoots. The native name of the plant, according to Mr. Cunningham, is Kowaingutu-Kaka, or Parrot's-bill, referring to the keel of the flower. *Curtis's Bot. Mag.*

ON *CLIANTHUS PUNICEUS*.—Having recently seen a splendid specimen of this plant in bloom in a greenhouse, planted against a trellis, attached to the back wall. I made some inquiries respecting its treatment in general. An intelligent gardener informed me that he formerly grew the plant in a pot, but requiring to be so often repotted, he resolved to plant it out into the border, the soil of which is a fresh turfy-loam, well enriched with old hot bed dung: he turned out the plant last August when three feet high, and now (June 1st) it is eleven, and the lateral shoots having been spread, cover a space six feet broad. The whole plant appeared to be a mass of beauty beyond conception. The plant has occasionally been matured with liquid manure.

I was told that it was an error to grow the plant in sandy peat soil, as has been strongly recommended and generally practised, it keeps the plant weakly, and in proportion fewer of flowers, but the more vigorous, the more bloom. I was also told that the plant ought to be grown in the open bed in preference to a pot. The roots extend so rapidly and numerously as to require a vast extent to range in, if the plant is to arrive at its native beauty and grandeur.

The plant thrives well when trained in the open air against a south-expected wall, but it will not endure the cold of winter without protection, but it is easy of culture, and will satisfactorily bear taking up each autumn, and preserved in a cool greenhouse, through winter, and in the spring planted out as before. Cuttings strike very rapidly if planted in sand, and be placed in a gentle heat for a few weeks. FLORA.

LIST OF PLANTS SUITABLE FOR A FLOWER GARDEN, NOT LIABLE TO BE EATEN BY HARES.—The following list of plants contains those which, when bedded out at Dropmore, are seldom gnawed or bitten by hares or rabbits, except those which are distinguished in the list by an asterisk, which are sometimes gnawed when newly planted. Newly planted things are more liable to injury than such as have been in the ground some time,

<i>Tropaeolum majus flore pleno</i>	<i>Nierembergia calcycina</i>
<i>Verbena Sabiniiana</i>	<i>Salvia chamedrifolia.</i>
.. <i>pulchella</i>	.. <i>fulgens</i>
.. * <i>venosa</i>	.. <i>Grahami</i>
.. * <i>chamedrifolia</i>	<i>Senecio elegans</i>
.. <i>Melindris</i>	<i>Kaulfusia amelloides</i>
<i>Bouvardia triphylla</i>	<i>Mahernia pinnata</i>
* <i>Heliotropium sp.</i>	<i>Petania nyctaginiflora</i>
<i>Calceolaria salvifolia</i>	.. <i>rosea</i>
.. <i>thyrsoiflora</i>	.. <i>praenitens</i>
.. <i>rugosa</i>	.. <i>Phoenicia</i>
.. <i>angustifolia</i>	.. <i>blanda</i>
<i>Oenothera macrocarpa</i>	<i>Mimulus roseus</i>
<i>Pelargonium optabile</i>	<i>Isotoma axilaris</i>
.. <i>Daveyanum.</i>	<i>Alonsoa linearis</i>
.. <i>pavonicum</i>	.. <i>acutifolia</i>
.. <i>Black Prince</i>	<i>Cinneraria amelloides</i>
.. <i>Fairy Queen</i>	<i>Fuchsia globosa.</i>
.. <i>Scarlets in var.</i>	

From LONDON'S GARDENER'S MAGAZINE,

ON *LANTONA SELLOII*.—This very neat and handsome flowering plant has bloomed most profusely when grown in the open flower beds, that I am induced to send a few observations on the mode of treatment I pursued.

I procured a plant in April 1836, and kept it in a warm part of the greenhouse, it bloomed profusely from June to September; I found that cuttings struck as readily as the *Verbena melindris*, I therefore took off during autumn fifty cuttings, which I potted off in November into small pots, and kept them in the greenhouse through winter. Early last May I planted them all out with balls entire, into a raised bed of rich loamy soil in my flower garden; not attending at first to tying up, the plants laid down on the ground, and in a few weeks I perceived the shoots had taken root similar to the roots of the *Verbena*. I allowed them to continue and spread, which they did in such a manner as to cover the soil entire, and the plants bloomed in July, August, and September delightfully, forming a fine contrast to the scarlet and white *Verbenas*. Its beautiful purple flowers making a showy appearance. The plant well deserves the attention of all who possess it. It may be procured very cheap. The plant is not capable to endure the open air in winter, so that a fresh supply of plants has to be raised, every summer or autumn in order to supply the following year.

CLERICUS.

ON SOME NEW PLANTS.

The Quarterly Review, No. 121, gives the following notices of plants which Mr. Moorcroft considered likely to prove valuable in this country if they could be introduced.—Travels in Kathmir, Bockhara, &c. By Messrs. Moorcroft, and Trebeck.

THE PRANGOS.—Prangos *Pabularia* of Lindley, Asiatic Journal, V. XIX. p. 798, *Silphium* of the ancients, Royle's Botany of the Himalay p. 230. "One of the most valuable sources of fodder in Ladakh, and perhaps in any country; it varies in size according to age, from a single leaf, not more than an inch in circumference, to a cluster of flowers and leaves spreading to a circumference of from twelve to eighteen feet. The head of the Prangos, including leaves, flowers, stems and seeds, is converted into hay for winter fodder for goats, sheep and cows. Considering the value of this plant as forage, its growing in a poor sterile soil, in every variety of site, except actual swamps, and in a bleak cold climate, and its flourishing wholly in independence, without the care and industry of man, it would seem probable that it might be introduced with national advantage into many parts of Britain, and would convert her heaths and downs, and highlands, into store-houses for the supply of innumerable flocks."

"THE LONG-MA or sand grass, furnishes almost the whole of the winter food of the unstabled brood mares and colts of the rajah of Ladakh, of the keary or wild horse, of the yak, and of all the cattle which are left unhoused at that season."

The PURIK, a small species of sheep, common in Ladakh, Mr. Moorcroft says, "It would be an invaluable appendage to the cottage of the British peasant, as it could be maintained at scarcely any cost. During the day in the summer months, it is pastured amongst the mountains, but at night and in the winter, it finds shelter in a walled yard, or under the roof of its master. In this state it seeks with incessant assiduity grass, straw, chaff, peelings of esculent vegetables, always attends the meals of the family, for morsels of flour cake, barley meal, &c. and will sometimes even nibble a bone."

Though a breed of these little animals might be attended with some expense and difficulty, could not the seeds of a Prangos and Long-ma be more easily procured by some of the numerous botanical collectors or speculators?

(The subject is well worth the attention of any of our readers who have correspondents in those countries. A small portion of seed of each would suffice to sow for the first season, so as to ascertain a satisfactory knowledge of its properties and suitability to this climate, &c. and to a more extended culture, if found worthy of it.—CONDUCTOR)

ON HYBRIDISING PLANTS.—The season for numerous plants blooming having arrived, I suggest to amateurs, nurserymen, and gardeners, the propriety of attending to artificial impregnation of all those kinds of flowers likely to become fertile. We are much indebted to the zeal and attention of a few persons whose efforts have been crowned with abundant success in furnishing our stoves, greenhouses, conservatories, and flower gardens with some of the most ornamental flowering plants; need I state the lilly, calceolarias, petunias, pansies, phloxs, salvias, fuchsias, verbenas, geraniums, rhododendrons, azaleas, &c. &c. A little attention in this process will undoubtedly be rewarded with more than ample compensation, and what is more interesting in plant culture than to have a number of seedling plants coming into bloom. The pleasing anxiety and gratification is extreme. A small pointed camel hair pencil is often needed in the operation, where the blossoms cannot be brought into contact.

May 26th

AN ARDENT ADMIRER AND CULTIVATOR.

REFERENCE TO PLATE.

EUPHORBIA FULGENS. Fulgens-flowered. This very strikingly singular and beautiful flowering species, is a native of Mexico, and requires to be grown in this country in the stove. The graceful habit and appearance of the plant even when not in bloom, in addition to its splendour, when loaded with its brilliant coloured flowers, render it a most charming plant, and it certainly merits a place in every collection of hothouse plants.

It grows very rapidly, so that a small plant obtained soon increases to an ornamental object. Cuttings inserted in sand, strike root very freely, and plants can be purchased at a very reasonable price. A compost of equal parts of sandy peat and rich loam, appear to suit the plant best. *E. splendens* is a very beautiful flowering species, but the present kind very far excels it in elegance and splendour.

PETUNIA MARGINATA PRASIMA. Mr. Luke's grass green-edged Petunia. The singularity and beauty of this very distinct variety is most striking. When the drawing was sent us, we was much struck with it, but far more so when we got plants of it in bloom. It was raised by Mr. Luke the very intelligent gardener to Earl Morely, who kindly presented it to us. The improvement that has been effected with the Petunia is certainly striking, we now possess twenty very distinct varieties, some of them very handsome. The fact that the plants are of very rapid growth, profuse in blooming, easy of increase, and their being so suitable to train over the surface of a bed at any desired height, or to train against a trellis, or to be kept as ornamental bushes, alike render them deserving a place in every flower garden or greenhouse. When once a variety is obtained, it is very easily kept by putting off a number of cuttings in a pot, during the end of summer, being thus kept through winter and potted off in spring. A bed of them can be most readily provided. A number of varieties grown together in a bed, produce a very pretty effect.

PETUNIA VITTATA. Striped flowered. Is another of the pretty varieties recently raised, and which we obtained.

FLORICULTURAL CALENDAR FOR JULY.

Take up the remaining tuberous root, such as Anemone and Ranunculus, finishing by the end of the first week; fill up their places and any vacancies that have occurred, with annuals from the reserve ground. Propagate herbaceous and other plants that have gone out of flower, by means of cuttings and slips; also roses and American shrubs, by laying, budding, or cuttings.

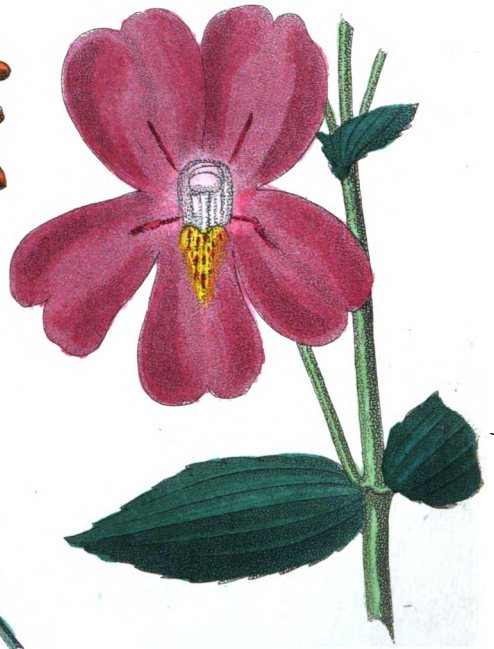
UNIV. OF
CALIFORNIA



Starkepea oculata.



Chorozema cordata.



Mimulus Harrisonii.

THE
FLORICULTURAL CABINET,

AUGUST, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON THE TREATMENT OF TROPEOLUM TRICOLORUM

BY FLORA.

THE very graceful beauty of the above plant is such as amply to repay for any attention that can be bestowed upon it. Whether its neat and interesting foliage, or the striking gaudy flowers produced in such profusion be noticed, each have peculiarly attractive charms.

Very great difficulty, however, occurs in growing the plant successfully, which induces me to send the following remarks on the treatment which I have pursued, and which I have found to answer extremely well.

All plants having bulbous roots require a season of rest, this is requisite with the Tricolorum, the question with me was, when is the most suitable term for it; I concluded, when they appeared to cease pushing new shoots early in October, I then gradually withheld watering, and in the following month, I ceased to give any water at all. I retained the bulb in the dried soil, and kept it on a shelf in the greenhouse. Early in January I examined the bulb by removing a portion of soil from the side, and I perceived it was vegetating. I then took it up carefully and repotted it into a twenty-four sized pot, using the following compost,

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one-third sandy peat, one-third well rotted leaf mould, and old hotbed dung, and the other part, a fresh yellow loam. I put two inches deep of drainage, viz. one of broken pots, and the other of moss.

I had the bulb placed high in the middle of the pot, and I replaced the plant in the greenhouse, and gave it water only when it was quite dry. This latter attention is very necessary, for the least excess of water rots the tender fibres, and consequently the foliage and stem dies. When, however, by any inattention, such a causality occurs, a friend of mine, who has long grown this plant, says, that the bulb should not have any more water, the surface stagnant soil to be removed, (not where the fibrous roots are), and a little dryish loam be substituted, the bulb ought then to be allowed to rest, just as if it was the usual season of its dormant state, at the end of the summer. Early in March, I put the pot in a gentle heat, in a hot bed frame for a fortnight, the bulb pushed a shoot, I then removed it to the greenhouse, where I carefully trained it to a circular wire frame, when the plant reached the height of six feet, and produced hundreds upon hundreds of its delightful blossoms. I am fully persuaded that the season of rest is by many persons prolonged too late in spring.

It is better to get the plant pushed by the end of March, and it can then be gradually encouraged by watering, &c. so as to become vigorous, and it should then be placed in a congenial situation in the greenhouse, where it is light and airy. When the bulb is kept dormant till April, as is generally done, a strong excitement is often had recourse to, by forcing the shoot up, and pushing it up afterwards very rapidly, in doing this, the roots are generally more tender, and the increased temperature renders an increase of water necessary; this often rots the fibres, and the plant either dies or becomes sickly. The greatest attention is required in the following particulars, viz. Have the bulb planted high, and excite the shoot up by placing the bulb a fortnight in gentle heat. Grow the plant in a light and airy greenhouse. Never water the soil till dry at surface, and dry it gradually for a season of rest; repot in the manner stated, and success is certain.

FLORA.

ARTICLE II.

ON THE CULTURE OF BOUWARDIA TRIPHYLLA.

BY MR. RICHARD DAY, ALVERTON GARDENS, BATH.

EARLY in April collect all the Bouvardias together from the place, where they have been kept through the dormant season, under the stage of the greenhouse. I turn them all out of their pots, and shake the soil completely from the roots; I thin off most of the large roots, yet retain as many of the fine fibrous ones as possible. Likewise at the same time, I cut down all the former year's shoots, retaining only two, three, or four eyes on each, according to the age and strength of the plants; I then plant them in pots, suitable to the size of the plants, taking great care never to overpot them, nor to cramp the roots by confinement. When potted, I water them to settle the earth about their roots, and place them in a cold frame, which is covered with mats at night, the lights being kept close during the night, and even in the day, unless the sun is very strong upon them, till they begin to grow; then give them portions of air, according to the day and their advance in growth. Subsequently I leave the lights off through the day, and lastly, do not put them on at night.

In about a week after they have been thus exposed, plant them finally out for the season, either in clumps by themselves, or distributed among other plants, when they are soon in fine bloom, and continue to flower till November, and are crowned with fine luxuriant clusters of splendid trumpet-like flowers.

As soon as frost is apprehended, I take up the plants with balls of earth attached to their roots, disturbing the fibres as little as possible, and place them carefully in pots that will admit of a little good mellow soil under the ball and around it.

When they are thus replaced in pots and watered so as to settle the mould, those which are in luxuriant bloom mix amongst the green house plants, where they make a splendid appearance till Christmas. When the plants begin to shed their leaves, and the flowers are nearly gone, I put them out of sight, under the stage as mentioned above, until April. This treatment I have continued with the same plants for many years; for the application of fresh soil, the trimming of the old roots, the great luxuriance gained by growing without confinement of their roots,

in congenial soil in summer, renovate the plants, which could not be done by any other means of culture.

Propagate the *Bouvardia*, by cuttings of the roots, which are managed as follows: fill some large pots with good fresh mellow loam, well blended with either thoroughly rotten dung or vegetable mould, and plant the roots all over the pot, beginning in a circle round the outside, opening the soil and planting them with the finger, continue to fill up one circle within another, till it is finished in the centre pot or pots, leaving no more of the roots visible above the surface than the top, when planted and watered, place them in a hothouse, where the temperature at night is kept at 70 degrees. As soon as the shoots get to between four and five inches high, I pot the plants singly into pots of a small size, and by degrees harden them after they have been established. When they have made some progress after this transplanting, I plant them out into a bed four feet wide, eight inches between the rows, and four inches in the row; where, if the soil be good, many of them will soon be in flower. They are then treated in the same manner, as directed for the older plants.

R. DAX.

ARTICLE III.

ON WATERING PLANTS.

BY CLERICUS.

THE present season of the year renders a good deal of watering necessary, and as the vigour and beauty of many plants is more or less the result of judicious or unjudicious watering. For several years I have used a good deal of liquid manure water with the greatest success, I am confident its advantages are not generally known, or it would be more generally used.

The mode of procedure I adopt is to water thrice with water in its natural state, and once with the manure water. This proportion is found to be congenial to the growth of all my greenhouse, stove, or half hardy plants, I have in pots; such as *Geraniums*, *Heaths*, *Salvias*, *Diosmas*, *Calceolarias*, *Cockscombs*, *Balsams*, *Justicias*, *Linums*, &c. &c. I find it most essential to

those kinds of plants which grow rapidly, and fill the pots full of roots; a supply of the manure water, renders it unnecessary for a long time to repot, and where a larger pot would be unsightly, I can keep a plant vigorous all the season without it.

To give manure water only, I find fills the soil with too much nutriment, and closing it up, renders it unsuitable to the health of the plants. I find that my using manure water, the surface soil of the pots requires to be stirred up a little oftener, but the vigour and beauty of the plants, more than compensate for this attention.

I have a tank made at the lowest part of my melon ground into which the drainings from the hot beds run.

CLERICUS.

June 6th, 1838.

ARTICLE IV.

ON THE CULTURE OF MANETTIA CORDATA AND M. GRANDIFLORA.

BY LOUISA HARRIETT.

THE above named pretty flowering plants well merit a place in every greenhouse or conservatory, and are very fine accompaniments to the *Tropæolum tricolorum*, *pentaphyllum*, *Brachyceras*, &c. Having most successfully grown them during the last two summers, I forward for insertion in the Cabinet, my mode of treatment.

The compost I use is a mixture of sandy peat, and well enriched loam, in equal proportions, having the pots well drained. I take care to have the plant raised high in the centre of the pot, so that no excess of water can be retained to damage it. This is essential to its flourishing.

A small plant of each was potted off early in March, I placed a circular wire trellis to each, and trained them to the height of five feet, and each plant produced a vast profusion of their handsome scarlet blossoms. Early in June I removed them {out of the twenty-four sized pots into twelves, in which they flourished the remainder of the year, continuing to bloom till November, and no plants in my collection equalled them in beauty.

Manettias are of easy culture striking most freely from cuttings

and grow rapidly. I purchased my plants at 2s. and 6d. each. I cut them down when I repotted them the second spring, being informed that plants so treated grew much more vigorous, than if all the tops were retained, as in that case the shoots are always weakly and produce few flowers.

L. HARRIETT.

ARTICLE V.

REMARKS ON THE HOLLY.

FRENCH naturalists have made the Holly the emblem of foresight, because, they say, that the foresight of Nature is admirably exemplified by this beautiful tree, which, when growing in its natural forest, protects itself by numerous leaves bristling with thorns, till it rises to about the height of ten feet, when the leaves cease to be thorny, and are perfectly smooth and even, because it has no longer any occasion to arm itself against any enemy who cannot reach higher; but we revere the Holly branch with its spiny and highly varnished foliage, which reflects its coral berries as an emblem that foretells the festival of Christmas, and the season when English hospitality shines in roast beef, turkeys, and the national pudding.

Tradition says that the first Christian church in Britain was built with boughs; and the disciples adopted the plan, as more likely to attract the notice of the people, because the heathen built their temples in that manner, probably to imitate the temples of Saturn, which were always under the oak.

The great feast of Saturn was held in December; and as the oaks in this country were then without leaves, the priests obliged the people to bring in boughs and sprigs of evergreens; and Christians on the 25th of the same month did the like; from whence originated the present custom of placing Holly and other evergreens in our churches and houses, to show the feast of Christmas is arrived.

This tree appears to have been formerly called Hulver, by which name it is still known in Norfolk, and Holme, in the southern counties; as appears by the name it has given to many places, where it grows naturally, as the Holmwood between Horsham and Dorking. Mr. Evelyn says, that the vale near his

house, in Surry, was anciently called Holmesdale. We presume, the name Holly is a corruption of the word holy, as Dr. Turner, our earliest writer on plants, calls it HOLY and HOLY-TREE; which appellation was given it, most probably, from its being used in holy places. It has a great variety of names in Germany, amongst which is *Christdorn*, in Danish it is also *Chirstorn*, and in Swedish *Christtorn*, amongst other appellations; from whence it appears, that it is considered a holy plant by certain classes in those countries.

The disciples of Zoroaster, believe, that the sun never shadows the Holly-tree. There are still some followers of this king of the magi to be found in the wilds of Persia, and some parts of India; who, when a child is born, throw in its face water which has been put in the bark of a Holly-tree.

Pliny tells us, that Tiburtus built the city of Tibur, near three Holly-trees, over which he had observed the flight of birds that the gods had fixed for its erection; and that the trees were standing in his own time, and must, therefore, have been upwards of one thousand two hundred years old. He also tells us, that there was a Holly-tree then growing near the Vatican, in Rome, on which was fixed a plate of brass, with an inscription engraven in Tuscan letters; that it was older than Rome itself, which must have been more than eight hundred years. This author notices a Holly-tree in Tusculum, the trunk of which measured thirty-five feet in circumference, and which sent out ten branches of such magnitude, that each might pass for a tree; he says, this single tree alone resembled a small wood.

The Holly grows to a considerable size, even as a timber tree, in this country, when permitted to stand. Cole tells us, in his "Paradise of Plants," that he knew a tree of this kind which grew in an orchard; and the owner, he says, "cut it down and caused it to be sawn into boards, and made himself a coffin thereof, and if I mistake not, left enough to make his wife one also. Both the parties were very corpulent; and, therefore, you may imagine the tree could not be small."

Bradley mentions that he has seen Holly-trees sixty feet high, at a place called Holly-walk, near Frensham, in Surry. Dr. Withering says, that on the north of the Wrekin, Shropshire, the Holly-trees, grow to a large size, and they are very common in the Chiltern division of Buckinghamshire. We have also ob-

served it growing abundantly in some parts of St. Leonard's forest in Sussex, particularly in the neighbourhood of Handcross. We presume that many noble trees of Holly would be seen in this country, but for the practice of cutting all the finest young plants to make coachmen's whips, thus leaving only the crooked branches or suckers to form shrubs.

The Holly, when it stands detached and is left to nature, forms one of the most beautiful evergreen trees that this or any other country produces; its pyramidal form, its immoveable foliage, its bright deep-green colour, and brilliant vermilion berries, contrast happily with almost every tree and shrub which the forest or the grove affords.

In the shrubbery these trees have a good effect, when judiciously placed; and although we prefer the common Holly in general, we recommend the variegated kinds as great enliveners to dark evergreens, as the yew, cypress, &c. They should have the box or some dwarf shrub in front, and a dark back-ground, whilst the common variety should be mixed with gayer neighbours; and the pale tints of the larch, which tower above its head, harmonize as well with this tree as does the waving birch or tremulous asp.

The variety with yellow berries was found wild near Walder Castle, as also at Wiston, near Buers, in Suffolk; it is a very ornamental tree in the shrubbery, as its berries at a distance carry the appearance of blossoms from the month of October to March.

Our nurserymen now offer us nearly fifty varieties of this plant, all of which may be propagated by grafting on a stock of the common sort. The most curious variety is that known by the name of the Hedgehog Holly, from its leaves being defended in all directions by thorns; this kind grows naturally in Canada; and Mr. Miller considered it a distinct species, and says it continues its natural character when raised from seeds. It was first planted in the Bishop of London's Garden, at Fullham, in the time of Compton, by Mr. George London, who is supposed to have introduced it from France. This ingenious nurseryman says, in his "Retired Gardener," 1706. "We have great variety of Hollies in England, and have brought them to more perfection than they are in any other part of the world."

(To be continued.)

ARTICLE VI.

ON THE CULTURE OF SCHIZANTHUS RETUSUS AND S. GRAHAMII.

BY FLORA.

IN the spring of last year I sowed seeds of the above Schizanthus in pots, and in May, I transplanted a number into my flower beds, they flourished and became very bushy, but did not at all throw up any flower stems. In October I took up the plants with all the soil adhering to each as I possibly could, and potted them into large pots, keeping each plant rather high in its pot. I did this, knowing they were likely to damp off, and being very bushy, I judged if the plant covered overclosely the top of the pot, the dampness from watering, would all be retained in the foliage, and certainly would cause it to rot. I placed the plants in a dry and airy part of the greenhouse during winter, and now, June 12th, they have pushed shoots a yard high, are still growing, and have hundreds of flowers upon each plant. One plant has eighteen erect principal stems, each furnished with laterals. Having been so successful, I have planted out some more from spring sown plants into the open border, for my next years' supply, where there is not the aid of a greenhouse, or even a pit frame to keep the plants in, during winter.

I am of opinion, if care be taken to pot high, and give none over the foliage in winter, they might be preserved in a dwelling room, having a tolerable aspected window for light. The beauty of the plant will amply repay for any unnecessary trouble.

Middlesex, June 13th, 1838.

FLORA.

ARTICLE VII.

REMARKS ON THE ROSE.

BY ROSA.

THE following very striking remarks on that lovely flower the Rose, I recently met with, and extract them for insertion in the Cabinet, the ardency with which the plant is now cultivated, and

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the season of blooming alike, will justify my requesting their immediate insertion.

The rose which is the emblem of beauty and the pride of Flora, reigns queen of the flowers in every part of the globe; and the bards of all nations have sung its praises. Yet what poet has been able, or language sufficient, to do justice to a plant that has been denominated the daughter of heaven, the glory of the spring, and the ornament of the earth.

As it is the most common of all that compose the garland of Flora, so it is the most delightful. Every country boasts of it, and every beholder admires it; poets have celebrated its charms without exhausting its eulogiums, for its allurements increase upon a familiarity, and every fresh view presents new beauties, and gives additional delight. Hence it renovates the imagination of the bard, and the very name of the flower gives harmony to his numbers, as its odours give sweetness to the air.

To paint this universal emblem of delicate splendor in its own hues, the pencil should be dipped in the tints of Aurora, when arising amidst her aerial glory. Human art can neither colour nor describe so fair a flower. Venus herself finds a rival in the rose, whose beauty is composed of all that is exquisite and graceful.

It has been made the symbol of sentiments as opposite as various. Piety seized it to decorate her temples, whilst Love expressed its tenderness by wreaths, and Jollity, revelled adorned with crowns of roses. Grief strews it on the tomb and luxury spreads it on the couch. It is mingled with our tears, and spread in our gayest walks; in epitaphs it expresses youthful modesty and chastity, whilst in the songs of the Bacchanalians their god is compared to this flower. The beauty of the morning is allegorically represented by this flower, and Aurora is depicted strewing roses before the chariot of Phœbus.

“ When morning paints the orient skies,
Her fingers burn with roseate dyes.”

It is thought to have given name to the Holy Land, where Solomon sung its praise, as Syria appears to be derived from Suri, a delicate species of rose, for which that beautiful country has always been famous; and hence called Suristan, the land of Roses.

Forster says, "the rose of Kashmire for its brilliancy and delicacy of odour has long been proverbial in the East."

"Who has not heard of the vale of Cashmere,
With its roses the brightest that earth ever gave."

MOORE.

The oriental poetry abounds in flowery allusions to this plant.

"You may place a hundred handfuls of fragrant herbs and flowers before the nightingale, yet he wishes not in his constant heart, for more than the sweet breath of his beloved rose."

"Oh! sooner shall the rose of May
Mistake her own sweet nightingale,
And to some meaner minstrel's lay
Open her bosom's glowing veil."

MOORE.

The Ghebers say, that when Abraham, their great prophet was thrown into the fire by the order of Nimrod, the flame turned instantly into "a bed of roses, where the child sweetly reposed."

According to the heathen mythology, Pagoda Siri one of the wives of Wistnou, was found in a rose.

The island of Rhodes owes its name to the prodigious quantity of roses with which it abounds.

Ludivico Verthema, who travelled into the east in the year 1503, observes, that Taessa was particularly celebrated for roses, and that he saw a great quantity of these flowers at Calicut, both red, white, and yellow; and Sir William Ousely tells us, in his work on Persia, that when he entered the flower garden belonging to the governor of a castle near Fassa, he was overwhelmed with roses. In Persia, wine and other liquors are brought to table with a rose in the bottle, instead of a stopple or cork.

Jackson says, that the roses of the Jinan Nile, or the garden of the Nile, attached to the emperor of Morocco's palace, are unequalled, and that matrasses are made of their petals for the men of rank to recline upon; and we read in Father Catrou's "Histoire de Mogol," that the celebrated princess Nourmahal caused an entire canal to be filled with rose water, upon which she took her pleasure with the Great Mogul.

The heat of the sun disengaging the water from the essential oil of the rose, this substance was remarked floating on the surface of the canal; and it was thus that the otto of roses was first discovered.



A perfumer in Paris who made otto of Roses for the court of Louis the Sixteenth, says, that it required four thousand pounds weight of rose leaves to produce seventeen ounces of the oil.

Of the birth of the rose, it is related in fable, that Flora having found the corpse of a favourite nymph, whose beauty of person was only surpassed by the purity of her heart and chastity of mind, resolved to raise a plant from the precious remains of this daughter of the dryads, for which purpose she begged the assistance of Venus and the Graces, as well as all the deities that preside over gardens, to assist in the transformation of the nymph into a flower, that was to be by them proclaimed queen of all the vegetable beauties. The ceremony was attended by the Zephyrs, who cleared the atmosphere, in order that Apollo might bless the new created progeny with his beams. Bacchus supplied rivers of nectar to nourish it, and Vertumnus poured his choicest perfumes over the plant. When the metamorphosis was complete, Pomona strewed her fruit over the young branches, which were then crowned by Flora with a diadem, that had been purposely prepared by the celestials to distinguish this queen of flowers.

Anacreon's birth of the rose stands thus translated by Moore:

“ Oh! whence could such a plant have sprung?
 Attend—for thus the tale is sung:
 When, humid from the silvery stream,
 Venus appear'd, in flushing hues,
 Mellow'd by Ocean's briny dews—
 When, in the starry courts above,
 The pregnant brain of mighty Jove
 Disclosed the nymph of azure glance—
 The nymph who shakes the martial lance.
 Then, then, in strange eventful hour,
 The earth produced an infant flower,
 Which sprung, with blushing tinctures drest,
 And wanton'd o'er its parent's breast.
 The gods beheld this brilliant birth,
 And hail'd the rose—the boon of earth!
 With nectar drops, a ruby tide,
 The sweetly orient buds they dyed,
 And bade them bloom, the flowers divine
 Of him who sheds the teeming vine:
 And bade them on the spangled thorn
 Expand their bosoms to the morn.”

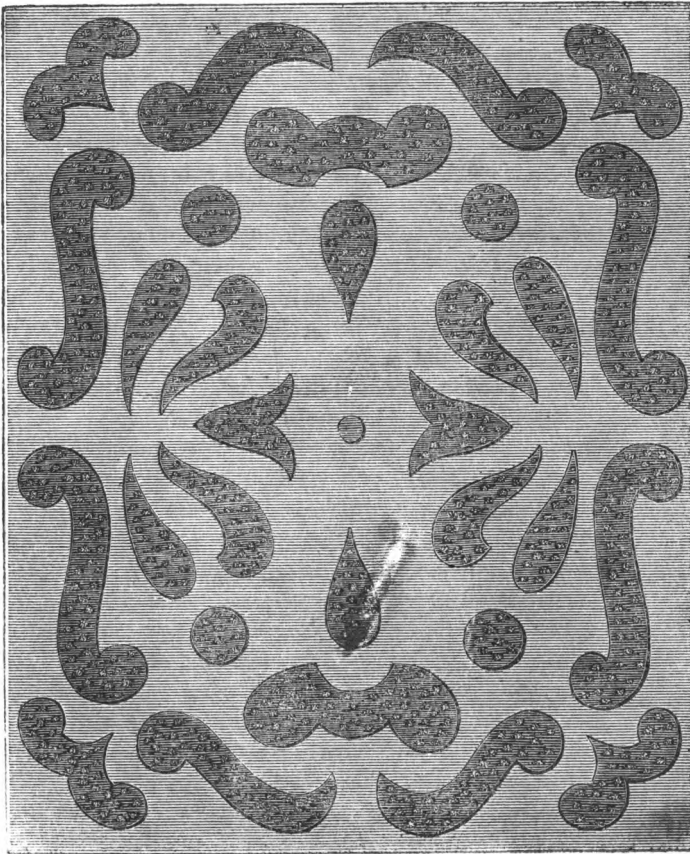
(To be continued.)

ARTICLE VIII.

PLANS OF A FLOWER GARDEN,

THE two following Plans of a Flower Garden, have been got up at a considerable expense, being of the very best description of wood-engraving, and executed by one of the first artists, their insertion, we hope, will be acceptable to our subscribers.

PLAN I.



UNIV. OF
CALIFORNIA

TO THE
REPUBLICAN LEAD

REVIEW.

(Continued from page 162.)

A north wall of moderate extent and moderate elevation, is often desirable, as affording space for ornamental climbers, and half acclimatized exotics, and as forming a *point d'appui* for the conservatory and other botanical structures. Such a wall may be surmounted with urns and other architectural ornaments, and screened at some little distance behind by trees. The other fences may be of wire-work, generally called *invisible*, or of wooden rails, or of holly hedges with rails.

Formerly the flower-beds were made either circular, straight, or in curves, and were turned into knots, scrolls, volutes, and other compartments; and this taste prevailed, perhaps, in some measure from a desire on the part of the contrivers, to compensate by their ingenuity for the paucity of the ornamental plants which they then cultivated. Now that the riches of Flora have poured into our gardens, a simpler taste has obtained. Of the figures in fashion at present in the lawn flower garden, perhaps the kidney shape and its varieties occur too frequently. It is needless as well as impossible to specify the numerous configurations of flower-pots, for they abound in kaleidoscopic variety. Good taste will suggest that those only should be associated, which harmonize well together; and it is better to incur the hazard of an apparent monotony, than to excite wonder by incongruous combination. When the figures are separated by turf, it is necessary that the little lawns or glades should have a considerable degree of breadth, as nothing has a worse effect than over-crowding. A multitude of little figures should also be avoided, as they produce what Mr. Gilpin calls *spotiness*, and which, as he has correctly pointed out, is a grievous deformity. In this sort of flower garden, it is desirable that a gravel walk should skirt along at least one side of the principal figures; in our humid climate, the grass would otherwise render them inaccessible with comfort during a great part of the year. In those gardens from which turf is excluded, the compartments should be of a larger and more massive character. Narrow borders bounded by parallel straight lines and concentric curves, should be avoided. The centres of the figures should be occupied with tall-growing shrubs, and even with an occasional low evergreen tree, such as a yew or a holly. The walks arranged in long concave curves, may communicate here and there with one another. A dial, a few seats and arbours, with an urn or two or a vase, may be introduced with good effect. It is to be regretted that so few good specimens of this species of flower-garden have hitherto been executed in Britain.

Amongst the accompaniments of the flower-garden may be mentioned the rock-work. This consists of variously grouped masses of large stones, generally such as are remarkable for being figured by water-wearing, or for containing petrifications or impressions; and into the cavities between the stones, filled with earth, alpine, or trailing plants are inserted. These are numerous and may be endlessly diversified. Several species of *Helianthemum*, *Gentiana*, *Pentstemon*, and *Primula*; *Campanula pumilla*, blue and white varieties, *carpatica*, and *nitida*; *Saponaria ocyroides*, and *Adonis vernalis*, may be recommended. In proper situations, a small piece of water may be introduced for the culture of aquatic plants. One of the walks is sometimes arched over with wire work, and covered with ornamental climbing shrubs, forming a delightful promenade in the glowing days of summer. A separate compartment, generally of some regular figure, is set apart for roses. A moist, or rather a shady border with bog earth, is devoted to that class of shrubs, commonly but not very accurately designated,

"American plants." In extensive places, a separate "American garden" is often formed in a locality which if not damp, has at least the command of water, occupying generally some warm corner of the park.

Some writers have advocated the formation of winter and spring gardens in separate localities; but we are not aware that their ideas have ever been embodied to any great extent. It is proposed that in the winter garden should be assembled all the hardy evergreen shrubs and plants, together with the few flowers that bloom during the winter months. The situation, it is recommended, should be well sheltered, and open only to the warm rays of the sun, which are peculiarly grateful in our cold brumal seasons. However attractive this scheme may be in theory, it seems doubtful whether it would be very successful in execution. Masses of evergreens have a sombre and monotonous effect, even in winter, unless occasionally broken and varied by deciduous trees. The contrast of their leafless neighbours relieves the intenseness of their gloom, and sets off their brilliancy. Though a winter garden, the very name of which is chilling, is perhaps not very desirable by itself, the object to be attained in it should be kept in view in the formation of the park or flower garden. We can easily suppose a particular section of the latter to contain a predominance of evergreens, and to possess the principal characters of a winter garden, without the formality of its name and purpose. In the endless variety of situations, it is not difficult to imagine a sloping bank, for instance, facing the sun, with a long walk skirting its base, the lower side of which might be adorned with a border or narrow paterre planted with arbutus and periwinkle, whilst the slope is covered with the higher evergreens, and the summit of the acclivity is crowned with groups of deciduous trees, interrupted by a few straggling firs, through which the wind, unfelt below, might sigh its melancholy music. Again, the spring garden, which need not be of very great extent, may take refuge in the vicinity of the green-house or conservatory, with which it is naturally allied.

Soil.

A variety of soils is required in the flower-garden, to suit the very different kinds of plants that fall to be cultivated. To florists' flowers particular compounds are assigned, and these shall be mentioned when treating of the flowers themselves. American plants require a peaty earth, varying from boggy peat to almost pure sand. Alluvial peat, that is boggy earth which has been washed away and incorporated with white sand, it is to be preferred; peat, cut from its natural bed and only partially decomposed, is of no value at all, or it is positively prejudicial to plants. In collecting soil from the surface of the muir, it is proper to take no more than the upper turf or sod, with the peat adhering to it, and only from the driest parts of the muir, where, besides the common heath, fescue-grasses occur. Where this cannot be procured, a good substitute is found in vegetable mould, that is, decayed leaves swept from lawns or woods, and allowed to lie in heaps for a few years. For the general purposes of the flower-garden a light loamy soil is advantageous; and were the natural covering is thin, or requires making up, recourse should be had to the surface-earth of old pastures, which, especially when incumbent on trap rocks, is found to be excellent. It is expedient to have a large mass of this material in the compost yard. The turf, and the surface soil adhering to it, should be laid up in a rough state, in which way it is continually ameliorating, by the decomposition of the vegetable matters, and the action of the air.

(To be Continued.)

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. ANIGOZANTHUS FLAVIDA. *Yellow haired.* [Bot. Reg. 87.

HEMENDORACE. HEXANDRIA MONOGYNIA.

This plant was long ago introduced into this country from New Holland, but it is to be found only in a few collections. Recently it has been sent from the Swan River colony to R. Mangles, Esq. Sunning Hill, Berks. If cultivated in the open border during summer; it grows very vigorously and blooms freely, a rich loamy soil mixed with about one-fourth of sandy peat suit it best. When grown in a pot in the frame-house, it requires plenty of room, to be placed near the glass, and have a free supply of water. The flowers are green in their early stage, changing to a yellowish green, when advanced. The outside of the flower is very hairy.

2. CENTAUREA DEPRESSA. *Prostrate.* [Bot. Mag. 8662.

COMPOSITÆ. SYNGENESIA FRUSTANEA.

The flowers of this species are very like the blue corn bottle of our own fields, but are of a much brighter colour. The plant is of a more humble growth, growing about nine inches high. When in bloom, the size of the flowers, the splendid colour and profusion of them upon a plant so small, has a very pretty effect, and highly ornamental to the flower garden. The present species is annual, a native of Persia, but succeeds well in the open border in this country.

3. EPIDENDRUM VIRIDI-PURPUREUM. *Purplish green flowered.*
(Bot. Mag. 8666.

Imported from Jamaica by Mr. Horsfall of Liverpool, and has bloomed in the Glasgow Botanic Garden. The flower stem rises to about half a yard high, and produces a drooping dense raceme of flowers, each about three quarters of an inch across. The sepals are of a pale green tinged with brown. The column green tinged with purple.

4. IPOMEA BONARIENSIS. *Buenos Ayres Ipomea.* [Bot. Reg. 3665.

CONVOLVULACEÆ. PENTANDRIA MONOGYNIA.

Mr. Tweedie observes that this species grows plentifully on ditch banks about Buenos Ayres, and seeds of it were sent by him to this country. The plant has a large tuberous root. It requires to be grown in the stove, where it produces flowers freely, very much resembling those of *I. insignis*; they are very handsome, of a pretty lilac colour, having the inside of the tubular portion of a dark purple. The plant merits a place in every stove as a twiner, growing to a great extent if required, and blooming profusely. Each flower is about two inches across.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE CULTURE OF PELARGONIUMS.—A few remarks on Pelargoniums are requested in the August number not later.

July 16th.

A YOUNG GENTLEMAN.

The query came after our original communications were printed off, we however give the practice of the most eminent growers around London. As soon as the old plants have done blooming, say, by the end of June at latest; cuttings are taken off, cutting each clean, horizontally, close under a joint, dressing off any leaves as far up as the cutting is to be inserted in a mixture of sand and loam, equal parts. These are struck on a slight hot-bed, from hot sun; in a month they strike root, and are then potted into 60's, in a compost of sandy loam and peat, or vegetable mould, then shading for a few days in a frame till struck afresh, when they are exposed to the open air. By the middle or end of August, they are repotted and the top of each plant is cut off, to cause a production of laterals which get pushed a few inches before winter, to furnish blooms next year. This latter attention is essential to have them bloom fine. By the early part of October the plants are all housed, and kept in rather a dry state through winter. In February following or early in March, the plants are repotted into a very rich loamy soil using a good degree of drainage, a free supply of water is given through the following season. When the young shoots have pushed, if too many, they are stemmed out in April, and a few left to bloom vigorously. Such plants are cut down in September, re-potted, &c., as stated is done to the above. We will however give an article more in detail in another number.—CONDUCTOR.

ON BENTHAMIA TRAGIFERA, (OR CORNUS CAPITATA).—An Old Subscriber to Harrison's Floricultural Cabinet, requests to be informed of the best mode to bring the *Benthamia Tragifera* plant to flower and fruit. The writer of this has three good sized plants of four or five years growth, and in a good healthy state, but have never flowered. For the last two winters they were kept in large pots and housed.

Bath, June 4th, 1838.

We hope our respected correspondent, who sent us the fruit in the first instance from Cornwall, will favor us with the mode of treatment which had been produced so as to have a plant fourteen or more feet high, and proportionably bushy. We had a plant at Downham, Norfolk, planted in the open ground last July, which remained out in a very exposed situation during the last winter; the branches and upper part of the stem were destroyed by the frost, but the lower part of the stem survived and is now pushing forth shoots. If the precaution of protecting the plant by matting, or even the stem wrapped up with straw bandage, &c., we are of opinion that only the lateral branches would have suffered.

If the plant was trained against a good aspected wall, it would unquestionably flourish there and bear fruit. It might then be readily protected in winter. From the statement made by a person who saw the original plant in Cornwall: scarcely any plant is more interesting, when it is seen loaded with fruit.—CONDUCTOR.

ON PLANTS SUITED TO A GRAVEL SOIL, AND WHAT KIND OF PLANTS ARE BEST ADAPTED FOR FLOURISHING UNDER THE SHADE OF LARGE TREES.—Your usual kind attention to Young Amateurs emboldens me to put a question to you, and I shall be very much obliged indeed if you will assist me by an answer.

What plants whether annual, biennial, or perennial will be best for me to plant in a very dry gravelly soil, which composes my garden. It does not seem to contain anything unfriendly to vegetation, as trees extend their roots and flourish in it. I particularly wish to make it ornamental by a variety of flowers during several months in the year, especially to train creepers up the front of my house. As I am asking questions you will perhaps allow me farther to enquire, what is the best method of filling up and ornamenting a garden under a growth of tall trees, and what are the plants, shrubs, or flowers, or foliage, native, or exotic, hardy, or half hardy, which may most be relied on for growth in such situations, whether damp or dry, and especially in a gravelly soil.

A CONSTANT SUBSCRIBER AND AMATEUR.

July, 4th, 1838.

REMARKS.

ON THE CULTURE OF *CHORIZEMA OVATA*.—That our collections may no longer want the exquisite richness of the blossoms of this plant, under good management, we shall proceed to lay down our method of cultivation, as practised at Chatsworth. Like many other New Holland plants, we find it a matter of difficulty to grow this species to a good natural size, and at the same time handsome.

The majority of the plants, from some cause, not clear to us, either draw up very weakly, or what is worse, scarcely progress at all. The following are the probable causes which work against its successful cultivation. First, being placed at too great a distance from the glass, which always tends to draw them up weakly, the atmosphere being too close and damp is the sure consequence of the want of a free circulation of air or want of light. Secondly, improper soil, careless potting, or incautious watering. By keeping these matters in view, and carefully refusing to practise either, we have succeeded in growing plants of this description to a degree of excellency far surpassing our expectations.

The soil in general recommended is an equal mixture of very sandy peat and loam; this composition, for plants like those we are now speaking of, does not fully accord with our experience; the soil used here will, therefore be found to differ. We select a quantity of peat, carefully avoiding such as does not contain a good deal of fibre, or that has not a considerable portion of white sand equally mixed with it, rejecting as entirely worthless all such as inclines to be stiff, or very sandy; to this is added not more than one-fourth of mellow sandy loam; the whole is then examined, and if the grains of sand are found not to touch, or nearly so, throughout the whole, so as to give it a greyish cast, what more sand is thought sufficient is thrown in and properly mixed up.

The soil is never sifted, this practise is discarded as taking out the most essential part, namely, the fibre; but after being well broken up with the back and edge of the spade, what lumps remains too large are reduced with

the hands. Any soil naturally retentive, or that inclines to become close, is always objectionable for these, and, in short, all hair-rooted plants. Plants on their first removal after striking are put into 60 sized pots in the above soil, being very particular in putting no less than two inches of good drainage (pots herds) at the bottom of each; they are afterwards removed to the propagating house, being first gently watered with a fine rose; here the atmosphere is congenial to them in this state, and will consequently cause the roots to push, and prepare them for a removal into an atmosphere more suited to their constitution, which should take place in about a week, as the young shoots will have taken hold of the new soil.

The next situation sought for them is a pit or frame (any aspect, where they can be placed near the glass, and be shaded from the hot sun: during fine weather air should be admitted freely, and the plants carefully though sufficiently watered every evening. They are finally placed in the greenhouse as near the glass as possible; but if avoidable never place them opposite the ventilator when the air is admitted, this will prove injurious to them as the house will require to be freely ventilated; if the air is admitted from the roof, they cannot sustain any injury. The house should be shut up in the evening. As these plants suffer from over-potting, it is necessary here to caution against so dangerous a practice.

Potting is in general looked upon as of minor importance, but the truth is, a badly potted plant, however healthy when shifted, never thrives. It is instructive to turn out the balls of several recently potted plants, and observe where the soil is loose or in holes, how it affects their growth; where the soil is compact, and properly put about the roots, the plant will grow freely and root well; but, on the other hand, if the soil is put in loose, or left in holes, the plant never properly thrives, but languishes, and ultimately dies if allowed to remain in that state; it is therefore necessary to place the soil compactly and properly about the roots when potting, never forgetting to effectually drain every pot as before directed.

The propagation of these plants is a difficulty which every gardener acknowledges and experiences, but even this becomes comparatively easy when steadily and attentively followed up. The few following hints will be useful.

The cuttings should be taken off while the wood is young, and carefully prepared; take off the bottom leaves with a sharp knife, and make a clear cut just through the joint; the cutting pot should be drained and filled to within two inches of the top, with the soil before spoken of, on the top of this put a layer of clean white sand, into which plant the cuttings, making a little hole for their reception with a small prepared stick; when the pot is full, give them a steady watering with a fine rose; after which, place a clean glass over them. In this state they may be removed to the propagating house, where the temperature should not sink below sixty-five degrees, and plunged into a little saw-dust. They should be effectually shaded from the sun, which can easily be done by placing a sheet of coarse paper between it and the glass inside the houses not as usual on the roof outside. The glass should be wiped quite dry every morning, and the cuttings when necessary, carefully watered.

The object of filling the pot up to within two inches of the top with soil, is to enable the young roots, as soon as they are formed at the bottom of the cuttings, to take off at once into the soil, which greatly strengthens them, and prevents the check which would ensue when potted off, if allowed to form their roots wholly in the sand.

Seeds of many of the species ripen in abundance, and as they in general vegetate freely, plants may be readily increased from them. They may be sown in any light soil, carefully avoiding any among which dung is incorporated; placed in a gentle heat, securely shaded from the sun, and judiciously watered, they will come up well; and when four proper leaves are formed they may be potted off in the manner before directed for cuttings.

MAGAZINE OF BOTANY.

REFERENCE TO PLATE.

1. *STANHOPEA OCLATA*, Eyed Stanhopea. Gynandria, Monandria. Orchideæ.—This most extraordinary species of an eminently remarkably genera of plants was originally imported by Messrs. Loddiges from Brazil, but is also reported to be a native of Mexico, as specimens were previously gathered there by Count Karwinski, and are preserved in the Royal Herbarium of Munich. It is very readily cultivated by the same treatment afforded to other Orchideæ natives of tropical climes. Practical details upon which our readers will find in several previous numbers of the CABINET; the form and marking presented to the eye by the flowers of this tribe of plants, are at once peculiarly attractive and striking, such is in a high degree conspicuously so with our present species, and must naturally awaken in the mind of every beholder the combined elegance and exquisite skill displayed in this one amongst the innumerable delightful works of our ever benevolent Creator.

2. *CHORIZEMA CORDATA*, Heart shaped Chorizema. Decandria, Monogynia, Papilionaceæ.—For the introduction of this new and beautiful species of Chorizema we are indebted to Robert Mangles, Esq., of Sunning Hill, Berks, who received it from the Swan River colony. It grows freely and is readily propagated by cuttings; it possesses fine foliage, of which other species are generally deficient, and blooms abundantly. It merits a place in every greenhouse or conservatory.

3. *MIMULUS HARRISONIA*, Harrison's Monkey flower. Didynamia, Angiospermia, Scrophularinæ.—This variety was raised, we are informed, by Mr. Low, of the Clapton Nursery. It is hybrid between *M. Cardinalis*, and *M. Roseus*; it is by far the most beautiful of the tribe, and besides the beauty of the flowers, it has the fine musk scent of *M. Moschatus*. With us it grows near four feet high, making quite a vigorous branching plant, and blooms profusely. The plant does well either in the open border, or in a pot.

FLORICULTURAL CALENDAR FOR AUGUST.

PELARGONIUMS.—Those plants that have done blooming should now be cut down, this will induce them to push fresh shoots immediately; when the shoots have pushed two inches long, the old plants should be repotted, shaking off the old soil and replacing with new. This attention to have a supply of strong young shoots before winter, furnishes the vigorous blooming wood for the ensuing spring, and the plants are kept dwarf and bushy. When the young shoots push after being headed down, there are generally many more than necessary to be retained.

They should be thinned out when an inch long: the tops now cut off may be inserted in sandy loam, and struck if required.

GREENHOUSE.—All exotic trees and shrubs belonging to this department, that are in want of larger pots, or refreshment of new soil, should (if not performed last month) immediately be done. This is the proper time to propagate Aloes, Sedums, and all others of a succulent nature, by means of suckers or bottom offsets; when detached from the parent, they should be potted singly into small pots, using light dry compost, watering sparingly till they have taken root. In the first, or second week at farthest, inoculation may be performed on any kinds of the Citrus genus.

DAHLIAS.—Thin out the branches of those kinds which are introduced for shows, and if it is desired to increase the stock of any new one, cuttings may be selected which will readily strike and form good sized pot-roots; water should be given copiously every evening, during dry weather; a strata of manure should be laid for three feet around the stem of each plant, which

will greatly assist in promoting a vigorous growth, and in the production of fine blooms during the ensuing month.

Earwigs and other insects begin now to infest the plants, and especial care should be taken to destroy them as much as possible before the plants get into bloom, which may be done by placing an inverted small garden pot, in which is placed a little moss; upon each stake, to which the earwigs will resort, and may be taken every morning.

AURICULAS.—Seedlings raised during spring should now be transplanted into pots for blooming.

CARNATIONS.—The blooms are now beginning to fade, and the operation of laying should be performed without delay; in doing this, take your seat astride a common form, get the pot before you, and steady the layers with your left hand, resting the back of your right hand upon the edge of the pot and holding the knife upwards between your two fore fingers and thumb; then, with a steady hand and correct eye, cut upwards quite through the middle of the second or third joint from the top; the cut may be extended a full quarter of an inch beyond the joints; if the joints are wide apart always take the second; remove the leaves that ensheath the joints, and shorten the nib just below them; be careful not to break off the layers in pegging them down, and cover the joints three quarters of an inch deep; remove them into the shade, water them with a fine rosed pot, and repeat it afterwards as often as necessary.

RANUNCULUSES.—roots should now be taken up and gradually and well dried in an airy room.

ROSES.—Budding should be finished as soon as possible.

CAMELLIAS.—any kinds required to bloom early, should now be removed into the greenhouse.

Mignonette to bloom during winter, should now be sown in pots.

FLOWER GARDEN.—Due care must be taken respecting watering any kinds of annual, biennial, or perennial plants that may be in pots. Propagate by means of slips, and parting the roots of any double-flowered and other desirable fibrous-rooted perennial plants done flowering. Likewise increase by offsets the different kinds of Saxifrage. Auriculas should be cleared of all dead leaves, and shifted into fresh pots; prick out of the seed bed, where it was omitted last month, Seedling Auriculas and Polyantheses, in a shady situation: seeds may also be sown of both kinds in boxes or pans. Carnations may still be layered, also Sweet-williams if desired, the earlier in the month the better. Those which were layered four or five weeks ago, will now be sufficiently rooted to be taken away, or planted in beds or pots. Also plant out pink pipings, which were put in in June. Sow seeds of all kinds of bulbous rooted plants in pans or boxes, such as Spring Cyclamen, Anemonies, Ranunculuses, &c., &c. Those kind of bulbs wanted to increase should be taken up if the leaves be decayed, and the offsets taken off. Crocus's, Narcissus's Crown Imperial, and Lilies, should only be taken up every other year. In dry weather gather those flower seeds that are ripe of any desired kinds. Plant out such kinds of autumn flowering bulbs as yet remain unplanted. Heartsease towards the end of the month, should be propagated by slips, put into a shady border, and kept quite moist till they have taken root; these will form fine strong plants for blooming the spring following. Chrysanthemums should not have their shoots stopped to make them branch, and keep them bushy, later than the middle of this month, as, if done later, the lateral produce would be weak and the blossoms small.

Where the plant has numerous shoots, they should be thinned out to a few, to have the plants large and showy.

UNIV. OF
CALIFORNIA



N. 1.



N. 2.



N. 3.

TO THE
MUSEUM
OF
NATURAL HISTORY

THE
FLORICULTURAL CABINET,

SEPTEMBER, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON LOBELIAS FOR FORMING A BED IN THE FLOWER GARDEN.

BY CLERICUS.

THE *Lobelia Cardinalis* and *L. fulgens* have already been noticed in the Cabinet, and as they most deservedly merited, were strongly recommended as highly ornamental plants for the flower garden; the fine brilliant scarlet colour of the former, and the bright crimson of the latter, not being exceeded by any other flower. I am much pleased with the meritorious results of hybridising some of the species of *Lobelias*, and to find among the produce some peculiarly striking varieties. I procured all I could, (a list I annex below) early this spring, and have planted them in a bed in my flower garden, and they now form one of the most interesting and handsome ornaments the flower garden can boast of.

I planted the tallest kind, *L. cardinalis*, now three feet high, in the centre of a circular bed, a row of *L. fulgens* next, and then six rows of the mixtures in colour, consisting of one hundred and twenty-five plants, to complete the bed, with the exception of the outer row, which consists of *L. arguta* and *L. gracilis* alternately planted, these latter being prostrate kinds and of a pretty blue and white, make a delightful edging.

The soil I have planted them in is a good fresh loam, well en-

riched with one year's old rotten dung from the cow yard, and a portion of sandy peat intermixed. In this compost, with a free supply of water, which is indispensable to their growing vigorously, I find them thrive amazingly. They now form a cone of brilliancy and beauty unrivalled, and which will continue to the end of the summer. I cannot too strongly recommend the culture of this lovely tribe to every reader of the Cabinet.

CLERICUS.

List of kinds which my bed contains, viz.

- Lobelia densa, close flowered.
- purpurea, purple.
- atropurpurea, dark purple.
- purpurea splendens, very bright purple.
- serotina, glittering blue.
- atosanguinea, deep blood-coloured.
- rosea, rosy crimson.
- atro rosea, deep rosy crimson.
- grandis, dark.
- longifolia, long-leaved lilac purple.
- violacea, violet coloured.
- dentata, purple crimson.
- coccinea, scarlet.
- cælestis, sky blue.
- milerii, (not yet in bloom)
- propingua, splendid scarlet.
- azurea, deep blue.
- speciosissima, showy.
- siphilitica alba, white.
- siphilitica azurea, deep blue, shaded.
- altoatouriensis, shaded crimson.
- heterophylla, various leaved, rich blue.
- cardinalis, scarlet.
- fulgens, crimson.
- speciosa, pale purple.

(We join our correspondent in commendation of this lovely tribe of plants. Their peculiarly graceful mode of blooming, elegance of form in so many successive spikes of brilliant flowers, their long duration of flowering, easy mode of culture, and the

facility with which the kinds may be increased and kept, all combining to give them claims to be admitted into every flower garden, or as highly ornamental to the greenhouse or conservatory, in summer, when grown in pots. The kinds may be forwarded at a cheap rate, and when once obtained, an abundance may be kept in future. Each of the kinds are prolific in offsets, and such being taken off the old plants in autumn, and potted into small pots in a sandy soil, and be kept in a cool frame, cool room or greenhouse through winter, or taking up the old plants at the end of the blooming season entire, putting each into a large pot, and preserving as above stated, throughout winter, the offsets will be numerous, and strong, and may be potted and separated, &c. in March, and by being forwarded a little, will be the better for turning out the end of April or early in May. We prefer leaving the offsets to the mother plant till spring, for when taken off late in autumn, not having an opportunity of striking root before winter, often perish. In either case, the plants require very little water during the winter season.—CONDUCTOR.)

ARTICLE II.

ON LAYING CARNATIONS, &c.

BY FLORA.

I LIKE Mr. Slater's article on the Tulip, very well, the hints of Practical Florists are always valuable. Your correspondent Pomona has laid down minutely the operation of laying Carnations, but there is one part of his system which is decidedly bad, I mean the old, (and I had hoped the exploded) method of cutting through the joint and one half or three quarters of an inch above it; the reason he gives for this is, like the celebrated question of King Charles to the Royal Society, founded upon a position that does not exist. It assumes if the slit was not made, the shoot would grow as nothing of the kind had happened. Now this from seven years experience I know to be false; the layers root equally well without the slit, and the plants are much more hardy, being in fact the same as a piping. The incision should reach up to the joint, but not into it, and be cut off close to it, as should the other side when taken from the mother plant. I never saw the difference more fully exemplified than in the late unfavourable winter and spring. Of my own plants layered in the above manner I lost not above one in fifty, whilst of those I received from different

places which were layered in the slit manner, nearly one-fourth have been destroyed. Perhaps Pomona will say he has Mr. Hogg's authority for his method, if so, I acknowledge it to be true, and I consider Mr. Hogg the first authority in the kingdom, but I am convinced that if he was to try the other method, (so far is he from being the slave of a system) that he would have no hesitation in adopting it. I do not expect that old practitioners will generally adopt the plan, but I would have all young florists abhor the slit system as much as they abhor a wire worm or earwig.—From my Hole in the Wall.

HUMBLE BEE.

ARTICLE III.

ROSES PROPAGATED BY CUTTINGS OF THE ROOTS

BY CLERICUS.

HAVING been advised to try the experiment of raising Rose trees by taking cuttings off the roots, I did so, and found it to succeed admirably. The mode I adopted was as follows. The first week in March I took some of the long, thick, and fleshy looking roots of my English and French Roses, and cut them into pieces about three inches long. I then smoothened the surface of a border in front of a peach wall, upon this I laid the roots flat, at about six inches apart; when the roots were placed, I covered them with fine sifted soil half an inch deep, gently beating it to the cuttings; I then laid four inches more of loamy soil well enriched with rotten cow dung, a year old, giving the whole a good watering, and when dry, smoothened the surface over with the back of the spade. By the middle of May every cutting had sent one, and some two strong shoots, and on examination, I found the soil I had covered the cuttings with, to be filled with a mass of fine roots; at this time, July 5th, the shoots are more than a foot high.

I have anxiously watered the bed, being in a sunny situation I found it got dry, more especially so, having the bed raised upon the old surface of the border, it would have been better to have sunk it so as finally to have it even with the surrounding soil.

FLORA.

(We have practised the above mode of raising Moss Roses, and

similar border kinds, which have been found difficult to increase from cuttings of the wood or young shoots, and have never known it fail. The following February is the best time to take up the young plants, and remove them to beds for flowering, which they will do very freely if taken up with as many fibrous roots as possible. Well rotted cow dung is the best manure for the rose, being cooler than horse dung, &c. a portion of it laid over the roots of the plants early in March, and either just pointed in or covered over with a little fresh loam, which improves the vigour of the plants and increase of bloom.—CONDUCTOR.)

ARTICLE IV.

ON MESEMBRYANTHEMUMS GROWN IN THE OPEN BED OR ON ROCK WORK.

BY LAURA.

THIS very extensive family of plants, furnishes a considerable quantity of very great beauty. The neatness in form, splendour of colour, and the profusion of blossoms, alike contributing to give them interest. In no situation do they appear to greater advantage than on a rock work, which has an open aspect to the sun from nine o'clock in the morning to four in the afternoon. Plants turned out of pots towards the end of May in various situations, so as to intermix the colours to the greatest contrast, and where they will give most effect, selecting trailing species where such are required, to hang down the face of a piece of rock, and upright growing kinds to rise out of hollows. Selections suitable are readily obtained at a cheap rate of nurserymen, who will give the best kinds both with regard to habit and colour for the purpose for which they are required.

The soil which I have found them to flourish best in, is loam, well enriched with old dung, with near one-sixth of sand; this allows water to pass readily away from the roots, and is essential to their success, for when the soil is close, and becomes soddened around the roots, the plants always become sickly. A free supply of water is also necessary, when they are growing and blooming; plants turned out in spring will continue to bloom till frost sets in. An open aspect to the sun is indispensable to their blooming and the flowers expanding.

In addition to furnishing a rock work, I had a bed made in front

of a greenhouse, close to the building, I had the old soil dug out a foot deep, at the bottom, I laid four inches of broken potsherds in large pieces, and filled up the space with a compost as above stated; in this I planted out sixty plants, the latter kinds at the back, sloping to the walk, running parallel with the front of the bed, and they bloomed prodigiously from the first week in June till November, when I had them taken up and repotted. I also repotted those on the rock work, kept them in the greenhouse, and turned them out again in the spring. During the mild winters of 1835 and 1836, I tried to keep those on the rock work alive, but was unsuccessful.

Bristol, July 7th 1838.

LAURA.

ARTICLE V.

REMARKS ON THE HOLLY.

(Continued from page 176.)

“AMONGST the kinds of holly which we noticed in the *Jardin des Plantes* at Paris, we were most pleased with a variety, with a very small pointed leaf, named *Aquifolium serratum*, and a second with a very broad leaf, quite free from spines, which was called *Ilex balearica*.

Columella seems to have recommended the Holly to the Romans as a proper fence for gardens. In his tenth book he says,

“And let such grounds with walls or prickly hedge,
Thick set, surrounded be, and well secured;
Not pervious to the cattle, nor the thief.”

Evelyn tells us that his garden at Say's Court was surrounded with an impregnable hedge of about four hundred feet in length, nine feet high, and five in diameter; “It mocks,” says this worthy author, “the rudest assaults of the weather, beasts, or hedge-breakers;” and it was almost the only thing belonging to his garden, that was not destroyed by the Czar of Muscovy. Mr. Evelyn lent his house to Peter the Great, in order that he might be near the dock-yard at Deptford, during his stay in England; and we are told that this imperial shipwright was so fond of being driven in a wheelbarrow over the box edgings and parterres of the author of the *Sylva*, that they were entirely destroyed; “which,” says he,

I can show in my now ruined garden at Say's Court, thanks to the Czar.

Mr. Evelyn was evidently a good Christian, but he appears to have overlooked the passage in Scripture, which says,

“Put not your faith in princes.”

for it does not appear that the emperor of Russia made him the least recompence for the devastation he had committed, both in the garden and the mansion; and he was certainly an unrewarded slave to Charles the second.

Mr. Evelyn informs us that Lord Dacres had a park in Sussex, environed with a holly hedge, so as to keep in any game; and he adds, “I have seen hedges, or if you will, stout walls of holly twenty feet in height, kept upright, and the gilded sort budded low, and in two or three places one above another, shorn and fashioned into columns and pilasters, architectonally shaped, and at a due distance; than which, nothing can possibly be more pleasant, the berry adorning the intercolumniations with scarlet festoons and encarpa.”

At the time this author flourished, landscape gardening did not exist, and all the gardens in Europe were laid out on geometrical principles, therefore, these shorn hedges were well adapted to the formal and gloomy dignity of the gardens of that age of avenues, right angles and octagons; yet we are of opinion with Mr. Loudon, that this style is not altogether to be condemned, it is well adapted to the palace at Versailles and of the Thuilleries, and all edifices which unite formality with splendour.

Few trees are better adapted for the lawn than the holly, as the colour either of the darkest or the most silvered, contrast equally well with the turf, and when

————— “The cherish'd fields
Put on their winter robe of purest white.”

It shines still more conspicuous; for the snows slip off the slippery leaves, as if dissolved by the fiery colour of its fruit, around which the feathered tribe crowd to claim the boon which nature has provided for them when other food is buried deep beneath the fleecy waters.

The holly which forms a verdant pavilion for the chirping tribe, protecting them from the inclemency of the stormy season, forms also a snare for their destruction; for the fowler obtains a viscid substance from the bark of this tree, which he prepares into bird-lime, and thus entangles his prey.

This tree which loves a cold loamy soil and a sheltered situation will thrive also where the south-west sea-blasts cut most other trees as if they were mown with a scythe, nor does it refuse to grow on gravel, chalk, or rocky land; and we have often seen it thrive upon brick earth, as well as upon dry hot sand and sterile heathy commons; thus accommodating itself to almost every soil and situation in the kingdom, particularly in very barren soils. The holly is valuable as well as ornamental. The timber is the whitest of all the hard woods; and therefore preferred by the turner and engraver to most others, as well as by the cabinet maker, when fashion permits the inlaying of coloured woods. It is often dyed black to imitate ebony; and it has long been in great demand at Tunbridge, in Kent, where it is manufactured into numerous fancy articles.

Deer feed upon the leaves in winter, and sheep browse upon it to their advantage.

Like the hawthorn, the holly sends forth its white blossoms in May, and its berries, like the thaws of the thorn, hang on the branches all the winter, and remain in the earth two years before they germinate, unless when they have passed through the stomach of fowls, when they vegetate the first year. We have, therefore, only to give them a similar fermentation by art, which nature gives them in the body of birds, to enable us to raise, young plants in one year instead of two. For this purpose we are recommended to take a bushel of bran, and to mix it with the seeds in a tub or earthen vessel, and wet it with soft water, and let it remain undisturbed for ten days when it will again ferment. It must be sprinkled occasionally with warm water to keep it moist, and in about thirty or forty days the heat of the moistened bran will put the berries into a state of vegetation fit for sowing in about a week after the fermentation has commenced.

March is the best season for sowing this seed, which may also be treated according to the direction given for raising hawthorns. September is the proper time for transplanting young hollies; but in cold and moist soils, they may be planted safely in the spring.

Mr. Evelyn says, he has raised hedges four feet high in four

years, from seedlings taken out of the woods. This should induce us to make more frequent trials of raising fences of this prickly plant ; and particularly on hilly situations, where it affords shelter to the shepherd and his flock, against either excessive heat or piercing storms.

Old medical writers tell us, that the ripe berries are relaxing, and astringent when dried ; but it is not our intention to recommend the robbing of the feathered tribe, and hurting our constitutions at the same time ; nor would we willingly be deemed credulous in noticing the old customs of our forefathers, who trusted to a branch of holly for their defence against witchcraft ; but this precaution has become unnecessary, since old ladies have lost their charming powers, and the spells of the youthful fair are too agreeable to be driven from us by a rod of holly.

The *Ilex Vomitaria*, commonly called the South Sea Tea, or Evergreen Cassine, is a native of West Florida, Carolina, and some of the warmer parts of Virginia, and principally found on the sea coast. This species of holly was cultivated as long back as 1700, but the severe winter of 1739 destroyed most of the plants ; but it has since been raised from seeds, and is found to resist the cold of our winters without protection, except that of neighbouring shrubs. It rises to the height of ten or twelve feet, the flowers are produced in close whorls at the joints of the branches, near the footstalks of the leaves ; they are of a white colour, and the fruit is a red berry, similar to the common holly. The tea made by an infusion of these leaves, is almost the only physic used by the natives of some parts of the new world.

At a certain time of the year these people come in droves from a distance of some hundred miles, to the coast for the leaves of this tree ; when they make a fire on the ground, over which they place a vessel of water, and throw into it a large quantity of the leaves. They then seat themselves round the fire and take large draughts of the infusion until it operates as an emetic. In this manner they continue to physic themselves for two or three days, and when their stomachs are sufficiently cleansed, every one takes a bundle of the branches with him to his habitation.

ARTICLE VI.

REMARKS ON TROPOELEM TUBEROSUM.

BY J. W. D.

A FIGURE of this interesting and pretty flowering plant, being recently given in the Cabinet, induces me to send the following remarks upon the plant which I cultivated during the last year.

In April 1837, I had a present of four tubers, which, as instructed, I planted in small pots, pushed them up in a hot bed frame, and then removed them into a warm greenhouse. The first week in June I turned them out of the pots entire, and planted them in a warm situation in a border in my flower garden, I had a very rich soil to grow them in. Around the plants were a number of rods, similar to what I use for sweet peas, these supported the plants from being broken by the wind, and kept them in good form as they extended, an addition of supports were given if required. I found the plant required a good supply of water. The last week in October I took up four plants, and to my astonishment, I collected half a peck of tubers in a very healthy state. I had been informed that the roots were fit to eat, and therefore had a portion boiled, and I found them to be of a soft pulpy nature, having the flavour of sea kale or asparagus, but slightly acrid, yet still very agreeable. The plant well deserves culture, both for its beauty as an ornamental flower, and for the tubers to eat.

Hackney, 1838.

J. W. D.

ARTICLE VII.

ON THE PANSEY.

BY ROSA.

As it has become a generally approved practice to have groups of flowers in varieties, as well as a bed of one colour, for the former I know of none equal to the Pansey, no other can furnish so many shades of colour as that beautiful plant. The flowers extend in colour beyond any other that I am acquainted with, and no other plant can equal it for duration of blooming. It continues from April to November. Its prolific flowering and humble growth too, very highly recommends it for beds, edging for a bed or border, or for a mixture amongst a general collection of flowers. The low price compared with some other ornamental plants, at which the various kinds are offered, affords fa-

cilities to obtain an extensive collection for a small amount of money; any other special recommendation of the pansy arises from its delightful fragrance.

During the past winter, the severity of the cold has made extensive ravages amongst the plants, and has instructed the growers with the fact, that some kinds are far more tender than others. It is very evident that plants raised from cuttings or slips, the previous summer, and are close and bushy, endure the severity of the winter the best. Plants that had been raised very early in spring, grown freely, and pushed long shoots during summer, or older plants with long shoots, have generally been cut off. To obviate this injury, it is advisable to raise a quantity of young plants each summer, or where old established plants are to remain, to have the long shoots cut in early in September, this induces a production of young and vigorous shoots, which I find will stand the severity of the winter uninjured. During winter I have observed that the frost, and worms in many cases, so operate upon the soil as to render it open and loose, it is advisable in such cases, to press close to the roots and stems, and to give an addition of surface soil.

ARTICLE VIII.

LIST OF PLANTS FOR FURNISHING BEDS IN A FLOWER GARDEN.

BY MR. THOMPSON. AUTHOR OF A PRACTICAL TREATISE ON THE CONSTRUCTION AND HEATING OF HORTICULTURAL ERECTIONS.

HAVING observed in the Floricultural Cabinet an application to any of your numerous subscribers for a list of plants best adapted for the ornamenting of flower gardens on plans similar to the engravings inserted in the Cabinet last month. Although these engravings are of a very superior description, yet in my opinion, there has been a great omission either in the artist or designer in not numbering the beds, so that any person being inclined to forward you a list of plants, suitable for that purpose, might do it more correctly, and more to the satisfaction of the reader, the numbers being a guide to the plants in each bed.

I, with much pleasure, forward you the following list of plants, which if you think worthy of a place in the Cabinet, is at your service. Great attention is necessary in the embellishment of a flower garden, to the contrasting of the tall and dwarf habited

plants in their proper situations, so^oas to vary as much as possible the colours of the flowers. Moreover I should advise that each of the principal beds should have standard perpetual roses introduced, and also that a few showy herbaceous plants, such as *Phlox paniculata*, *Phlox alba*, *Phlox reflexa*, *Phlox Wheelerii*, *Phlox Browni*, *Phlox tardiflora*, &c.

List I. consists of two kinds of plants grown in each bed.

Anagallis Monelli and *Lotus Jacobeus*.

Anagallis grandiflora and *Verbena Sabina*.

Scarlet Geraniums and *Delphinium grandiflora*.

Verbena melindris and double white *Antirrhinum*

Verbena Drummondii and *Antirrhinum major*.

Calceolaria vicosissima, and double white Lillies.

Fuchsia Thomsonia, and *Delphinium Barlowii*.

Lantana Sellowi and *Verbena aubletia*.

Verbena Tweediana and *Lobelia, lutea*.

Lobelia erinus and *antirrhinum carryophylloides*.

Crassula coccinea and *Heliotropium peruvianum*.

Verbena Lambertia and *Mesembryanthemum spectabile*.

Mesembryanthemum blandum and *petunia intermedia*.

Oenothera macrocarpa and *Campanula garganica*.

Double scarlet *Lychnis* and new white *Petunias*,

Fuchsia globosa and *Delphinium crinensis*.

Oenothera Drummondii, and *Flora cordata*.

Petunia phyllicaulis, and *Aster amelloides*.

Petunia phænicea, and *Hydrangeas*.

Variegated leaved scarlet leaved Geraniums and *Delphinium grandiflora*.

Oenothera missourensis and *Mesembryanthemum floribundum*.

Phlox Drummondii and *Petunia gracilis*.

Oenothera Drummondii and *Campanula latifolia*.

Calceolaria majori and *calceolaria integrifolia*.

Heliotropium peruvianum and *Crassula coccinea*.

Verbena melindris and *Istoma axilaris*.

Oenothera dispotosa and *Beauverdia triphylla*.

Fushsia conica and *Oenothera speciosa*

Brighton scarlet geranium and *Hydrangeas*.

Bouverdia triphylla and *Petunia macrocarpa*.

Verbena incisa and *Verbena Lambertia*.

List II. has only one species of plants grown in each bed.

Anagalis monelli	Lantana Sellowi
Anagalis grandiflora	Verbena arranana
Scarlet geraniums	Crassula coccinea
Delphinium grandiflora	Enothera macrapa
Verbena Drummondii	Enothera Drumondii
Double white Antirrhinium	Enothera missouriensis
Verbena melindris	Calceolaria majori
Calceolaria viscosissima	Esholtzia crocea
Fuchsia Thomsonia	Heliotropium peruvianum
Verbena Tweediana	Petunia intermedia
Double scarlet Lychnis	Delphinium crinensis
Lobelia lutea	Phlox cordata
Fuchsia globosa	Aster amelloides
Petunia phyllacaulis	Hydrangeas
Antirrhinium major	Enothera speciosa
Petunia phœnicea	Calceolaria integrifolia.

ARTICLE IX.

REMARKS ON THE ROSE.

Continued from page 180.

Fabulous authors also account for the delicious perfume of the rose, by telling us that Love, in a feast of Olympus, in the midst of the gaiety of a light and lively dance, overthrew, with a stroke of his wing, a cup of nectar, which precious liquor falling on the rose, embalmed it with that heavenly fragrance which it still retains.

Mythological writers also relate that Rhodante, queen of Corinth, to avoid the pursuit of her lovers, fled to the temple of Diana to conceal herself; but being besieged by lovers, and obliged to appear, she called on the people for assistance, who, on beholding her beauty, threw down the statue of Diana, and declared her to be the goddess of the temple; upon which Apollo changed her into a rose.

The first rose ever seen was said to have been given by the god of love to Harpocrates, the god of silence, to engage him not to divulge the amours of his mother Venus; and from hence the ancients made it a symbol of silence, and it became a custom to place a rose above their heads in their banquetting rooms, in order to banish restraint, as nothing there said would be repeated

elsewhere ; and from this practice originated the saying, " under the rose," when any thing was to be kept secret.

The Turks are great admirers of this beautiful flower, and Musulmen in general believe, that it first sprang from the perspiration of Mahomet, on which account they will not suffer a rose leaf to lie on the ground, or permit any one to tread upon this sacred flower.

In the luxurious days of the ancients, even the warriors crowned themselves with garlands of roses, during their principal repast ; and Pliny tells us, their delicate meats were either covered with the petals of these fragrant flowers, or sprinkled with its odorous oils. At a feast which Cleopatra gave to Anthony, the royal apartments were covered with rose leaves to a considerable depth.

The triumvir, when dying, begged of the captivating queen that she would scatter perfumes on his tomb, and cover it with roses.

In Turkey, a rose is sculptured on the monument of all ladies that die unmarried ; and in Poland they cover the coffins of children with roses, and when the funeral passes the streets, a number of these roses are thrown from the windows. Camden tells us, " There is a classical custom observed, time out of mind, at Oakley, in Surry, of planting a rose tree on the graves, especially of the young men and maidens who have lost their lovers ; so that this church-yard is full of them." It is the more remarkable, since it was used anciently both amongst the Greeks and Romans ; who were so very religious in it, that we find it often annexed as a codicil to their wills (as appears by an old inscription at Ravenna, and another at Milan), by which they ordered roses to be strewed and planted over their graves.

This ancient custom of decorating graves with flowers, the symbols of fleeting mortality, has almost passed from recollection in this country, and is rapidly disappearing in most parts of Wales ; but we read in the " Beauties of England," that Thomas Stevens, a poor and aged man, who lies buried in the church-yard of the village of Stokenchurch, in Oxfordshire, left a request that his oldest son would annually dress his grave with flowers on the recurrence of the wake of St. Peter's.

The Mexicans, says the Abbé Clavigero, have from time immemorial studied the cultivation of flowers and odorous plants which they employ in the worship of their gods ; and in the tem-

ple of the true God, the high priest was formerly crowned with roses. The Catholic church has still preserved the use of these flowers in its most sacred ceremonies, as it is always the rose that they strew before the holy sacrament in solemn processions.

There is now to be seen at Rome in the church of Saint Susan, an old Mosaic, which represents Charlemagne kneeling, receiving of St. Peter, a standard covered with roses. The custom of blessing the rose is still preserved at Rome, and the day is called *Dominica in rosa*. They make in that city artificial rose-trees of pure gold, which are blessed by the Pope on the first Sunday in Lent, while they sing *Lætera Jerusalemæ*, and which after mass, he carries in procession, and then sends it to sovereigns, or presents it to princes who visit his capital: and it was the custom until about these last forty years, for the prince who received this rose tree, to give a sum equal to five hundred pounds to the person who brought him this present from the pope; but the rose-tree itself was worth twice that sum.

Pope Julius the Second sent a consecrated rose of gold, dipped in chrism, and perfumed with musk, to Archbishop Warham, to be presented to Henry the Eighth, at high mass, with the apostolical benediction. The king received the precious rose, and more precious benediction, with profound reverence and excessive joy. But every body knows how soon the remembrance of this rose faded with this capricious monarch.

Mary Stuart, queen of Scots sent a magnificent rose-tree to Rosnard, the French poet, of the sixteenth century which was valued at two thousand crowns, with this inscription: *Rosnard, l'Apollon de la Source des Muses*.

Bayle relates an accident which happened at the baptism of Rosnard. In those days it was customary to bring large vases full of rose water, and baskets of flowers to christenings; and as the nurse was going to church with the infant bard, she let her flowers fall, and in turning to recover them, she touched the attendant who carried the vase of rose water, and spilt it on the child; and this says Bayle, was since regarded as a happy presage of the good odour that would some day scatter his poetry.

Painters represent Saint Dorothy holding a nosegay of roses, because it is told in her life that an angel gave her a bunch of roses; and a prodigy is related of Saint Louis the Ninth of France. It is pretended that a rose was seen to come out of his mouth after his death.

In the Abbey of Saint Croix, at Poitiers, they show a pillar that was raised to commemorate a pretended miracle, and where they tell you a rose-tree in full blossom sprung out of the grave of a young man after the day of his interment. It is truly shocking that the teachers of Christianity should countenance such absurd superstitions. We could enumerate many others coupled with the rose; but we are more anxious to give space for an account of the agreeable use to which this flower was put by Saint Medard, who about the year 530 instituted the most affecting prize piety has ever offered to virtue. It was a crown of roses for that villager's daughter who was the most modest, most obedient to her parents, and the most discreet. The first rose tree was his own sister, whom he crowned in the church of Salency.

We cannot pass over unnoticed the well-known story of the rose leaf, which shows how fond the eastern nations were of conveying their thoughts by hieroglyphics.

At Amadan there was a famous academy, the rules of which were, that the members of it should think much, write little, and speak as seldom as possible. Zeba, a learned doctor, celebrated all over the east for his great knowledge, hearing of a vacancy in this institution, hastened to the city in order to be elected. Unfortunately he arrived too late, for the place had already been filled by a candidate, who, like many in those times, owed his success more to his power than to his deserts. The president of the academy filled a vase so full of water that an additional drop would make it run over, by which the doctor was to understand that their society was too full to admit of another member.

The learned Zeb was retiring sorrowfully, when by chance he perceived a petal of a rose at his feet, which he seized with promptness, and placed so delicately on the top of the water, that it did not disturb it in the least. This ingenious allusion was received by the assembly with the greatest approbation, and the academicians testified by their unanimous applause, their consent to the reception of the illustrious Zeb as a member of their mute society.

(To be continued)

PART II.

LIST OF NEW AND RARE PLANTS.

Noticed since our last.

1. FUNCKIA SIEBOLDIANA.
- Dr. Siebold's.*
- Bot. Mag. 3668.

HEMEROCALLIDÆ. HEXANDRIA MONOGYNIA.

This species was discovered in Japan by Dr. Siebold. It has bloomed in the Glasgow Botanic Garden flowering in the Greenhouse in July. The flower scape rises more than a foot high, bearing a drooping raceme of lily like flowers, white tinged with purple and green.

2. GESNERA TUBEROSA.
- Tuberous-rooted.*
- [Bot. Mag. 3664.

GESNERIACEÆ. DIDYNAMIA GYMNASPERMIA.

This species was sent to this country from the Berlin gardens by the name of *G. rupestris*, by mistake. The leaves are eight inches long, by six and a half broad. It blooms freely during autumn in the hothouse. The flowers rise above the surface of the tuber from two to three inches high. Each tuber producing twenty and upwards. The flower is rather more than an inch long, tubular, curved slightly. The limb of the corolla is of a deep scarlet, the inside of the tubular portion yellow, and of a yellowish red.

- NEMESIA FLORIBUNDA.
- Many flowered.*
- (Bot. Reg. 39.

SCROPHULARIACEÆ. DIDYNAMIA ANGIOSPERMIA. Synonym *N. AFFINIS*,

3. A pretty little annual, whose blossoms strongly resemble some of the *Linarias*, the plant grows about a foot high, branching, producing numerous flowers, each about half an inch across. White, with a tinge of yellow on the upper lip. It blooms in the open border from June to September.

- PHALGÉNOPSIS AMABILIS.
- The Indian Butterfly Plant.*
- (Bot. Reg. 34.

ORCHIDÆ. Synonym. EPIDENDRUM AMABILE.

4. It appears this singular species was first met with on the woody coast of Nusa Kambangan, by Dr. Blume. Rumph in noticing it says, "in Amboyna it grows on thick short trees, covered with moss, and it proceeds up such, coiling like a rope, and hangs down at the termination in entangled tufts.

It has recently bloomed in the fine collection of Messrs. Rollinson's, Tooting, for the first time it is supposed in this country. The form of the flower is very curious; the petals are of a pure white, broad, and of a leathery appearance. Labellum, white, streaked and lined with yellow and red. Each flower is near three inches across. The flower stem produces a panicle of many flowers. The plant grows freely, being fixed to a piece of wood, along with a little moss or turf attached, the whole being suspended in the orchidæ house. Whenever this mode of affixing orchidæ is adopted, the wood should be covered with rough bark, or be in a decaying state to enable the roots to fix themselves to it.

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Y

RHODODENDRON NUDIFLORUM; var. SCINTILANS. *Sparkling Rhododendron*.
(Bot. Mag. 367.)

ERICÆÆ. DECANDRIA MONOGYNIA.

5. This variety was raised at East of Carnaroons, High Clere. It is cultivated extensively, with others by Mr. Curtis, at Flazenwood. The flower is red, with the exception of the upper petal, which is of a fine orange. It is a beautiful variety.

SALVIA CANENSCANS. *Horny Sage*. (Bot. Reg. 36.)

LABIATÆÆ. DIANDRIA MONOGYNIA.

6. It is a native of the rocks of Caucasus. It is a hardy herbaceous plant, having the leaves covered with whitish wool, but the stems with longish hairs. The flowers are of a fine deep white purple, produced numerously on branching spikes, which rise to about two feet high. It is a pretty plant either for rock work or the flower border. It has bloomed in the garden of the London Horticultural Society.

TRITONIA FACCATÆÆ. *Painted Tritonia* (Bot. Reg. 35.)

IRIDACEÆÆ. TRIANDRIA MONOGYNIA.

7. Cultivated in the collection of the Hon. and Rev. W. Herbert, Spafforth Mr. Wetherby, who received bulbs of it from the Cape of Good Hope, twenty-five years ago, but it did not bloom till last year, and that appears to have been the result of dung having been laid over the patches of bulbs in the open border. The flowers are produced upon a spike (twelve or more upon each) which is decurved from the part where the first flowers arise, from which circumstance, the flowers standing erect, show themselves advantageously, and produce an interesting appearance. The upper part of the labia is of a deep blood red, the lower part, of five recurved divisions, yellow streaked with brownish red.

CATILEYA MOSSIÆÆ. *Mrs. Moss's Superb Cattleya*. (Bot. Mag. 3669.)

GYNANDRIA MONANDRIA. ORCHIDÆÆÆ.

8. The flowers of this species are certainly the most magnificent of any orchideous plants yet bloomed in this country. The flower is eight inches across, and each petal, being four inches long and two broad, and the entire flower more than twenty inches in circumference. The colour and marking of the flower is very striking. The petals are of a beautiful rosy lilac. The inside of the tubular part of the labellum is yellow, the other portion of it rosy lilac, splendidly streaked and blotched with crimson scarlet, the lip spreading near three inches across. The flower is also peculiarly fragrant. The plant is a native of La Guayra, and was sent from thence in 1836 to the fine collection of Mrs. Moss, Otterspool, near Liverpool, where it has recently bloomed under the skilful management of Mr. James, the gardener. It ought to be in every collection of orchideæ, and no reasonable price ought to be objected to, in order to obtain it.

SAIANUM CAMPANULATUM. *Bell Flowered*. (Bot. Mag. 3672)

SOLANÆÆÆ. PENTANDRIA MONOGYNIA.

9. A native of New South Wales, and in this country has bloomed in the greenhouse of the Edinburgh Botanic garden. The stem is herbaceous. The flowers are produced in terminal racemes, the Corolla of a fine purplish blue, bell-shaped, an inch and a half across.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE RETARDING THE BLOOMING OF FLOWERS.—All gardeners are busy in making early flowers; is it possible to retard flowers, as to have those kinds which usually bloom in spring or early summer, to bloom in autumn? as for instance, the Pœony, Gladiolus, &c. Suppose the bulbs of the latter were taken up and not replanted till the middle of the spring, what would be the effect? If any reader of the Cabinet should have tried the experiment, I should be obliged for information as to the result, and if successful, mode of treatment pursued?

I wish that you would give me a list of those Geraniums (Pelargoniums) which may be said to blossom perpetually all the season (as the red does,) with the prices and where they may be got. Also, where is the most likely place to get these kinds that are good, but are become a little old and out of fashion. I think several of the best florists, or at least the most eminent do not consider it worth while to keep them, and it is therefore difficult to find them,

Will Geraniums, Pelargoniums, or Erodiums, produce hybrid flowers among themselves?

I wish you would give a list of those shrubs which has been introduced within the last few years, which are so hardy as to be useful in gardens and grounds. I love the open garden and its variety, and happy to inform you that the Araucaria is quite hardy, having stood through the last winter unprotected, although it was removed in the autumn.

HARDY.

(We have tried experiments of this kind with many flowers, and although we succeeded to bloom Ranunculuses, Anemonies Pœonies, Gladioluses, and Ixiases, of the tribe of early flowers, as late as August and September; they uniformly bloomed much weaker than at their proper season. Early blooming annuals can of course be made to bloom late by sowing seed accordingly. We tried several successive years to hybridize the Pelargoniums with the blue flowered Garden Geranium, but could not succeed. A white flowered Pelargonium was impregnated with *G. striata*, the pretty striped flower of the borders, and it was judged to have effected the purpose; a striped flowering Pelargonium was raised. But as sufficient care was not taken to prevent impregnation from some other Pelargoniums, it could not be positively determined as to the real fact. Perhaps some of our numerous readers may be able to give us additional information. If our correspondent requested a list of the sorts desired, with prices of any of the celebrated Pelargonium growers in his own neighbourhood (London) such would be cheerfully furnished; and such a person is most likely to know the habits of nearly every kind that has been celebrated for the last ten years, and would either furnish them, if desired, or give information where it was probable that they may be obtained. By raising plants at various seasons, or heading down in such a manner, repotting, &c. the flowering season may be prolonged, so as to have early and late, but the late blooming plants never can be caused to bloom as fine, as at their usual season in spring or early summer.—CONDUCTOR.)

ON NELUMBIUMS.—A few hints on the culture of these beautiful plants will be thankfully perused by your constant reader.

Canterbury July 13th, 1838.

J. P. K.

ON AMARYLLIS.—I would be glad to know from some of your readers, who cultivate the different species of Amaryllises, of the best mode of treatment. I have just had a collection of seventy-two kinds presented me, but not being properly acquainted with their culture, I feel very anxious to learn.

Should the bulbs be taken up and dried annually?

A YOUNG AMATEUR.

ON PACKING PLANTS.—A. M. D. would be considerably obliged by being furnished through the medium of the Cabinet with any practical information upon the best mode of packing and managing plants during a voyage. Mr. M. D. has many opportunities of receiving plants from his friends residing abroad, which he certainly should do, when he is acquainted with the best practical method of transmitting them. An early answer will greatly oblige.

Liverpool, June 28th, 1838.

ON CACTI.—I should feel much obliged if any of your correspondents would inform me through the medium of the Cabinet, respecting what I call a phenomena of nature. The cause, why a piece of one of the tribe of Cacti, which I observed a short time since in a garden, after being cut from the plant, and laying a fortnight on a shelf in the greenhouse, to produce as perfect a flower as when growing on the plant, the bud not being nearly matured when taken from the stem. Not having observed a thing similar before, and feeling an interest in botanical knowledge, induced me to send this, and should feel extremely obliged, by its insertion in the Cabinet.

ORBILOGIST.

REMARKS.

New and Rare Plants.

RUELLIA ELEGANS.—This new and dwarf species has bloomed beautifully at Mr. Young's of Epsom, and Mr. Lowe's of Clapton in the stove. The flowers are of a pretty blue, producing a very lively appearance which has continued for several months successively

SIPHOCAMPYLUS BICOLOR.—This plant is in fine bloom at Mr. Henderson's, Pine Apple Place, Edgeware Road; its scarlet and yellow flowers, singular in form, are produced for many successive months. It is very ornamental for the greenhouse, or conservatory.

PESTEMON COBCEA, is also in fine bloom at Mr. Henderson's, it is a most magnificent species, well deserving a place in every flower garden. The corolla is more than an inch across at its mouth, and such flowers are numerous produced.

HIPPEASTRUM AMBIGUUM LONGIFLORUM.—This new variety is in bloom at the Epsom nursery. The flowers are very large, of a pretty cream colour streaked with crimson. It deserves a place in every greenhouse.

FUSCHIA FULGENS is now in bloom in several nursery and flower establishments, and in its vigorous state is a most magnificent object as a Fuchsia. Whether the fine foliage or large and brilliant flowers be noticed, each render it deserving of a place in every greenhouse.

COMESPERMA GRACILIS, is in bloom in the greenhouse at the Epsom nursery, the plant is shrubby, a twiner of graceful habit, the leaves are narrow, about an inch long. The flowers are produced in profusion on the slender stems, in racemes of ten or twelve on each, of a lively violet colour very

much resembling the little British *Polygala*. It is a very neat and pretty species.

ON *TROPEZOLUM TRICOLORUM*.—If the bulb be planted so near the surface of the soil in the pot as to leave the upper part half bare, it will swell, and the size will be very greatly increased. This mode of treatment only benefits the bulb, the season it is done, for though it contributes to enlarge the bulb, the shoots are rendered so weakly by it, as to bloom very sparingly. The bulb, however, being so much increased in size, is capable of producing shoots and flowers the following season proportionately larger as well as more of the latter, when planted and treated in the following manner the succeeding season. See soil described in pages 148 and 170.

The delicate roots of the *Tricolorum* are not numerous, and consequently do not require a large pot, but when the roots extend to the side of the pot, the operation of dry heat upon it, injures the roots, and causes the foliage to become yellow and sickly. To obviate this, recourse has been had to plant the bulb in a large pot, as the roots do not extend far from the bulb, they would not then be liable to the injury as in small pots; but in this mode the water necessary to give the plant saturates the soil, so as to sour it, and render it injurious to the plant, in which case the foliage turns yellow and sickly, and sometimes the habit is destroyed. It has been found, however, that the injury is obviated, by planting the bulb in a smallish pot when the stem has pushed a foot, the pot is then placed inside a larger one, and the space is filled up with river or other sand. This is kept moist by often watering, and thus keep the roots, which extend to the side of the pot in which the bulb is planted, cool and moist, and renders it less necessary to water the soil. Plants thus treated flourish amazingly, and amply repay the attention paid to them.

FLORA.

ON THE *CATTELEYA GUTTATA*.—There is perhaps no genus of orchideous epiphytes yet in our gardens such a general favourite as *Cattleya*, a circumstance which is to be ascribed in part to the great beauty of such species as *C. labiata*, *Loddigesii*, and *crispa*; and doubtless also in part to the readiness with which they adapt themselves to the artificial state of life under which they are necessarily preserved in our hothouses.

There is, however, a great difference in the degree of success with which these plants are managed, even by excellent cultivators; for if we see *C. labiata* and *crispa*, with two or three flowers in a cluster, so as also we do see them with a larger number; *C. crispa* in particular, has been grown with seven flowers, by Mr. Paxton, gardener to his Grace the Duke of Devonshire, thus forming a spectacle of almost unrivalled beauty, and pleasing to look upon. The most striking instance of remarkable success in this matter that has come to my knowledge, is in the case of a plant of *C. guttata*, flowered in the hothouse of Richard Harrison, Esq. of Aighburgh, near Liverpool, and by him exhibited at the meeting of this society, on the 6th of December last, when the silver Knightian medal was awarded it.

C. guttata is a native of the woods about Rio Janeiro. It was originally sent to the Horticultural Society of London by the Right Hon. Sir Robert Gordon, and has recently been met with by Mr. Gardener in abundance on trees and plants in the same country.

It generally produces two or three yellowish green flowers, richly spotted with crimson, which is its condition in a wild state; occasionally five or six are seen, and possibly more. The specimen to which I allude had no fewer than twenty-four flowers on one raceme, and was altogether, with the exception of an *Aerides cornutum*, in the possession of Messrs. Loddiges, which is the most noble specimen of this natural order of plants that I have had the good fortune to observe. The lovers of Flora will be glad to learn the method which Mr. W. Perrin, gardener to Mr. Harrison adopts to cultivate this beautiful plant. It is as follows.

“The soil in which I grow *Cattleyas* is a compost of peat earth, and bro-

ken potsherds in equal quantities. I always pot at the time the young shoots begin to grow, do not use very large pots, but endeavour to proportion the pot to the plant. In potting I always keep the plant a little higher than the top of the pots, as these plants suffer from being disturbed in their roots too often. I do not pot them oftener than can possibly be avoided. The *Cattleya guttata*, the flower of which was sent to the Horticultural Society, has not been repotted for the last three years. I keep the plants in rather a low heat during the winter months, the thermometer generally ranging from 50 to 60 degrees. As the spring approaches, I increase the heat, keeping the hothouse more moist. In the latter end of the spring and summer months, the temperature is maintained between 70 and 100 degrees, and the moisture is increased as much as possible, with a little shade in very bright weather over the glass. When the plants have done flowering, and the young shoots cease to grow, I begin to lessen the quantity of water, till the approach of winter, when it is entirely withheld for that season. As soon in the spring as they begin to make their young shoots, they are potted, if I judge they want; if not, they are top dressed, and I begin to water, as I left off, by degrees, till the summer, when I water very freely."

Mr. Perris is equally successful in his propagation of *Cattleyas*, and gives the following account of his plan:

My first trial was on a large plant of the *Cattleya crispa*, which had eight old shoots and two young shoots, gone over the side of the pot. I took a sharp penknife and cut the plant through carefully in three places, taking care not to disturb the plant, or to cut away any of the roots. To my great surprise, in a short time I had two fine shoots at the side of each old one where I had cut. I have now eight young shoots, and I believe, had I cut it through at the side of all the old shoots, I should have had sixteen new shoots. I intend to cut the remainder of the shoots through next season. I should say in this place, that the two young shoots that were on the plant before I cut it through, did not suffer by the wound. I think they grew equally as strong and faster than before, which makes me think that the old part of the plant is of no use to the new shoots after they have made their roots. I have been informed that this method of increasing orchideous epiphytes will not succeed, excepting on large established plants; but I have tried it on very small plants, and have found it to answer as well as on larger ones,

A LIST OF SUCCESSION PLANTS FOR A FLOWER GARDEN.

The following is a list of plants which are well calculated to insure a succession of flowers in the garden, and such a list being requested at page 183, I send it for insertion in the Cabinet.

In the Snowdrop bed, plant Lily of the Valley; turn out from pots in course of time into the Crocus bed, *Clarkia pulchella*; double blue Hepatica bed, *Calceolarias*; double Pink ditto, *Schizanthus*; *Scilla bifolia*, *Collinsia bicolor*; *Leptosiphon densiflorus*, *Pelargonium*s; *Hyacinth*, *Cacalia*; *Anemone*, *Clarkia pulchella alba*; *Polyanthus* and *Narcissus*, *Eutoca viscida*; *Ranunculus*, *White Petunia*; *Heartsease*, *Goodetia rubicunda*; *Lupine*, *Mimulus cardinalis*; *Larkspur*, *Lobelia cardinalis*; *White Rocket*, *German Asters*; *Sweet-william*, *Marvel of Peru*; *Clabanthus arabicus*, *Marygold*s; *Pinks*, *Balsams*; *White Saxifrage*, *Clintonia pulchella*; *Roses*, *Coreopsis*; *Nemophilla insignis*, *Fuchsias*; *Bartonia aurea*, *Double Jacobæa*; *Scarlet Zinnias*, in the same bed as *Verbena melindrea*.

The great secret in the management of a flower garden, is to have an abundance of things ready in pots, to turn out in the beds when the early flowers are beginning to fade. I shall feel obliged if some correspondent will inform me what annuals will be best to plant out in the shade, and under trees.

PATRICK.

TEALEY'S QUEEN VICTORIA PINK.—This new kind has been exhibited at some of the shows in London, and is highly spoken of by some of the Florists. It is said to be a first rate flower, colour, light purple laced.

ON GREENHOUSE AZALEAS.—Many of the most handsome flowering plants are found to die in winter, the fibrous roots being so fine and delicate, that the least excess of moisture causes them to perish; to prevent this, a mode of treatment has been found effectual, by grafting or inarching the delicate kinds upon stalks of the *Azalea indica phœnicea*, that kind being more robust and of vigorous growth, it not only endures well through winter, but those kinds worked upon it, grow much more vigorous and bloom far more profusely.

(Grafting or inarching is easily effected, in the same manner that is done with the *Camellia*, the method deserves the attention of all persons who are cultivators of this charming tribe of greenhouse plants. We were astonished with the vigour and beauty of many superb specimens of the delicate sorts, that by this mode had been rendered very luxuriant; which we saw in several of the London nurseries this spring and summer; stocks are easily procured at a cheap rate, or raised by cuttings in sand.)

CONDUCTOR.

***NORTH DEVON HORTICULTURAL SOCIETY,** took place at the public rooms, Barnstaple; the show of fruit in consequence of the extreme backwardness of the season, was not large, yet contained many fine specimens of various sorts; but of plants and flowers, the display excelled that of any former occasion; the vegetables also were very fine and in great abundance.

T. Downes, Esq., Marwood, provided a very fine specimen of the *Cactus Speciosissimus*, with a variety of Tender annuals and Ranunculuses. This gentleman had also some very rare plants, which we noticed on a table set apart for them, and a description of which may not prove uninteresting. In the first place, our attention was taken with the Manito or Hand tree, (from its resemblance in form to the human hand;) only three specimens are said to be in existence—two in the small botanical gardens of the palace of Mexico, and one at the town of Tocola; the tree at its full growth, is forty feet high, with a smooth trunk, without branches to the top, but the boughs then stretch over a considerable space, with large leaves and numerous flowers, hanging downwards from amongst the foliage, it bears a stronger resemblance to the plane or the tulip tree, than any other we are acquainted with in Britian. The next was a Lichen from Mexico, a very curious plant, (from the vicinity of Tepic,) which, when immersed in water, resumes the appearance of vegetation, and recovers its green colour, retaining this quality during any number of successive trials. The third is a very singular production, called the Flor de Madera, or Wooden Flower, ascribed by some to the effect of a parasitic creeper, but by others to the injury of a young shoot they grow in a variety of odd forms; but the diseased excrescences of plants are usually shapeless, and covered with bark. Besides these, there are twenty-four varieties of the Cacti, from Real del Monto.

REFERENCE TO PLATE.

1. *CHRYSANTHEMUM INDICUM*, var. *MINERVA*.—This very fine variety was raised by Mr. Freestone, Watlington Hall, near Downham. Mr. Freestone has been by far the most successful raiser of fine hybrid *Chrysanthemums* in this country.

2. This unique and pretty variety was also raised by Mr. Freestone.

3. Purple edged rose leaved Seedling Pink, raised by Mr. Neville, Walworth, (who also raised the "Hope Dahlia";) it is admitted by all florists who have seen it, to surpass by far all others of its class. The specimen sent us was the most perfect we ever saw.

FLORICULTURAL CALENDAR FOR SEPTEMBER.

Annual flower seeds, as Clarkia, Collinsia, Schizanthuses, Ten-week Stocks, &c., now sown in pots and kept in a cool frame or greenhouse during winter, will be suitable for planting out in open borders next April. Such plants bloom early and fine, and their flowering season is generally closing when Spring sown plants are coming into bloom,

Carnation layers, if struck root, should immediately be potted off.

China Rose cuttings now strike very freely; buds may still be put in successfully.

Mignonette may now be sown in pots, to bloom in winter.

Pelargoniums, cuttings of, may now be put off; plants from such, will bloom in May.

Pinks, pipings of, if struck, may be taken off and planted in the situations intended for blooming in next season.

Plants of Herbaceous Calceolarias should now be divided, taking off offsets and planting them in small pots.

Verbena Melindres (*chamædrifolia*.) Runners of this plant should now be taken off, planting them in small pots, and placing them in a shady situation. It should be attended to as early in the month as convenient.

Plants of Chinese Chrysanthemums should be repotted if necessary; for if done later, the blossoms will be small. Use the richest soil.

When Petunias, Heliotropium, Salvias, Pelargoniums, (Geraniums,) &c., have been grown in open borders, and it is desirable to have bushy plants for the same purpose the next year, it is now the proper time to take off slips, and insert a number in a pot; afterwards place them in a hot-bed frame, or other situation having the command of heat. When struck root, they may be placed in a greenhouse or cool frame to preserve them from frost during winter. When divided, and planted out the ensuing May in open borders of rich soil, the plants will be stocky and bloom profusely.

Tigridia pavonia roots may generally be taken up about the end of the month.

Greenhouse plants will generally require to be taken in by the end of the month, if allowed to remain out much longer, the foliage will often turn brown from the effects of cold air.

Plants of Pentstemons should be divided by taking off offsets, or increased by striking slips. They should be struck in heat.

PANZIES.—The tops and slips of Panzies should now be cut off, and be inserted under a hand-glass, or where they can be shaded a little. They will root very freely, and be good plants for next season.

Evergreen hardy shrubs may be planted, puddle and water freely till the autumn rains set in.

UNIV. OF
CALIFORNIA



Lilium speciosum

TO THE
LIBRARY OF
THE UNIVERSITY OF
TORONTO



Pentstemon heterophyllus



Lophospermum scandens

1881

THE
FLORICULTURAL CABINET,

OCTOBER, 1st, 1838.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE PLANNING AND FORMATION OF ORNAMENTAL
FLOWER BEDS.

BY MR. G. E. TURNER, MONKTON FARLBIGH, NEAR BATH.

I NEVER enter a flower garden without pleasure, or leave it without satisfaction. Each little plant has beauties and attractions, which never fail to captivate and delight. In the excellent pencilling, and the delicate hues of a flower, I can trace the eternal wisdom and unbounded benevolence of its Creator, and read and read

“ And read again, and still find something new,
“ Something to amuse, something to instruct.”

And it is because I have myself derived such refined gratification from floricultural amusements, that I would humbly contribute my mite, to the valuable treasury of useful and practical information, whose benefits are distributed to the public, through the widely circulating medium of the Floricultural Cabinet.

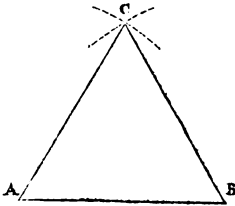
Now, although in every garden each individual flower is the immediate and proper object of our admiration, yet it must be
Vol. VI. No. 68. z

allowed that a just arrangement of height, and combination of the colour, will add much to general beauty of the whole picture; and this is easily and usually effected in proportion to the taste of fancy which every (even the most uneducated) gardener possesses in a greater or less degree.

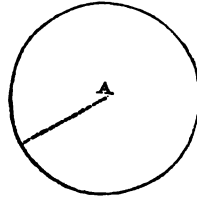
These beauties, I observe, are displayed because they depend much upon taste and little upon skill: not so however with the formation of beds. Though a point of paramount importance in forming an ornamental flower garden, yet there are but few ordinary gardeners who are capable of planning or cutting out a number of beds with taste or precision. They may, perhaps, form in their minds many a beautiful and elegant design, and yet be quite unable to reduce it to practice, and the reason is this, it cannot be done but upon mathematical principles, which have never yet been placed within their reach, and it is to communicate these principles in a simple and appropriate form, that I beg to offer the following plan to your notice, in which I trust, the most learned of your readers will find nothing to despise, and I am sure that many of your more humble subscribers, will acknowledge much to be acceptable, interesting, and useful.

The following figures may be drawn for practice on the boarded floor of a room with chalk.

No. 1.



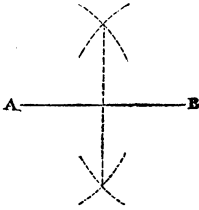
No. 2.



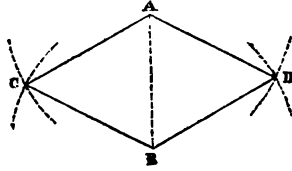
No. 1.—Draw A B, and with its length, from each end describe arcs cutting each other in C: join A B.

No. 2.—Fix a stiff stick in the centre A, slip the loop end of your twine on the stick, and draw the circle at any distance from A.

No. 3.



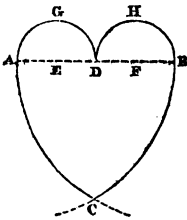
No. 4.



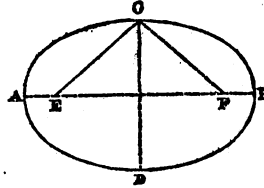
No. 3.—To divide a line into two equal parts, describe corresponding arcs at any distance on each side of A B, and from one point where they cut to the other, strain your line, and it will equally divide A B.

No. 4.—Upon each side of A B, describe the triangle A C B and A D B as in No. 1.

No. 5.



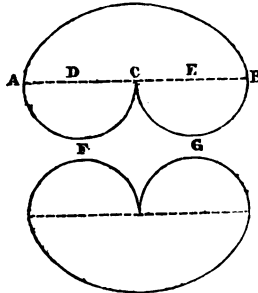
No. 6.



No. 5.—From A and B, describe the arcs A C and B C divide A B in D; and again divide A D and B D in E and F, and from E and F describe the half circles A G D and B H D.

No. 6.—Draw A B, divide it and draw C D equal to two-thirds of A B. From C draw C E, C F, each equal to the half A B; and in the points E and F fix a stiff stick, on which slip the ends of a piece of twine by loops, equal to A B, then carry a pointed stick round by the twine, and the oval will be thus correctly drawn.

No. 7.



No. 7.—Upon A B describe half an oval as in No. 6. Divide A B in C, and again divide A C and C B in D and E, and from these centres describe the half circles A F C and C G B.

ARTICLE II.

ON SAVING SEED FROM CHRYSANTHEMUMS*.

BY MR. R. FREESTONE, WATLINGTON, NEAR DOWNHAM, NORFOLK.

WHEN the flowers are fully expanded, take a fine camel hair pencil, and fill it well with pollen from any of the semi-double flowers, apply this to the stigma of the two outside rows of petals. When the flowers begin to decay, cut them off as close as you can without injuring the seed-vessels. Place the plants in the warmest and driest situation, a dry stove is the best; watch them daily to see that no mouldiness contracts upon the flower-stems or seed vessels, if any appear, let it be wiped off.

The seed will be ripe in about six weeks from the time of impregnation; when so, cut and hang it in the driest room you have.

Early in February let the seed be cleaned from the husk, and sown in light soil, covering it a quarter of an inch with finely sifted compost; place the pot in a cucumber or pine-pit worked with dung, and in about a month from the time of sowing, the plants may be expected up; as soon as they are strong enough, pot them off into small sixties, re-pot them as the pots become full of roots, until you get them into pots of nine inches in depth

* In this country it is necessary to force them into bloom as early as possible.

and diameter; keep them in heat as long as possible without drawing the plants, and many of them will bloom the first year.

R. FREESTONE.

ARTICLE III.

ON THE HARDIHOOD OF THE MYRTLE.

J. G.

ABOUT seventeen years ago I planted a myrtle about a foot high against a kitchen wall, and sheltered it with matting, every winter; it grew the height of the wall (about eighteen feet) two or three times, and flowered profusely. The winter before last, having removed, I sent for this tree, it was by some neglect left on the lawn, after having been dug up two nights with four or five degrees of frost; it was planted in a southern aspect, without shelter, all the winter. It dropped in consequence some of its leaves, and did not flower, no doubt on account of its removal, otherwise in the autumn it was as luxuriant as ever.

This last winter it was unsheltered through all the severest weather, and appears to have suffered much the same as the Bays and Lauristinus. Unfortunately it was cut down with the latter, or I have very little doubt it would have shot out in its upper branches. It has now innumerable shoots a foot from the ground. Its roots when dug up, contrary to what my gardener expected, extended only about six or eight inches from the trunks, of which latter, there were three or four, three inches in diameter.

The purport of sending this is the inducement it may hold out to some of your readers to grow it in sheltered situations as a hardy tree, few trees would look handsomer as a standard, and I have but little doubt that with shelter the first and second winters it would thrive in most English counties, I should say this was grown in Essex five or six miles from London, and the thermometer one night last winter was below Zero.

J. G.

July 13, 1838.

P. S. A *Magnolia grandiflora* has survived the winter without shelter on the lawn in the same garden.

ARTICLE IV.

ON THE CULTURE OF THE HYACINTH.

BY H. L.

As the time for planting bulbous roots is approaching, I send these lines on the culture of the Hyacinth, deeming it probable you may consider them worthy a place in the Floricultural Cabinet. It is much to be regretted that so beautiful a flower should not be more generally cultivated, especially as it blooms so early in the spring, at a time when flowers are a desideratum.

Hyacinths may either be planted in pots, or beds, or be placed in bulb glasses; which latter method is the favourite one, especially with the ladies.

I shall therefore first offer a few remarks on the blooming of them in water.

The bulbs should be put into the glasses sometime in the month of October or November, but to speak more exactly, when the incipient fibres or roots make their appearance, and the scapus or flower stalk be just discerned making its way to the top, the water should cover the whole of that part whence the fibres proceed. It must be soft or rain water, and requires changing as often as it becomes offensive, which generally occurs in about ten days after the putting in, and afterwards varies from a fortnight to three weeks.

They should be placed in a situation where the light is not very strong, and unless for forcing, where there is no artificial heat. The mantle-piece of a room in which there is a fire, must be avoided, for nothing tends more to cause a deterioration in the bells, and to produce an unmanageable tall stem.

Time will not permit me to add more now, as I wish to transmit this in time for insertion in the next number of your Work, and my concluding observations on the culture of Hyacinths in beds or pots, shall, if it meet your concurrence, appear in the November Number.

H. L.

Islington, 14th Sept, 1858.

[We feel much obliged by the kindness of our correspondent, and shall feel additionally so, to receive the other remarks as soon as convenient.]

ARTICLE V.

ON A LIST OF PLANTS FOR FURNISHING A FLOWER GARDEN, SO AS TO BLOOM SUCCESSIVELY.

BY J. M.

HAVING a few moments to spare from my daily avocations, I have drawn up a list of plants, such as I think most suitable for the plans which are inserted in the July cabinet, and I hope it will be of service to many of your readers; for I am sorry to say, there are but few flower gardens attended to as I should like to see them, viz. in flower most of the season.

I should recommend (which is not in my list) a few of the best annuals to be sown in pots or beds in the autumn, so as to be fit for transplanting into the beds that will be done flowering about the end of March, as there will not be many which will be in my list fit for planting out before the middle of May.

Some of your readers may think that I should have inserted many plants into my list that I have not, if there are any such, my advice to those individuals is, to introduce into their gardens whatever may tend to give their flower beds the best effect.

But I must say, that after four years studying and making lists of such plants as I thought most suitable, for prolonging the interesting scenery of a flower garden, that the following list will meet the object in view, viz. a display of plants which are in bloom most part of the season.

All the bulbs, except the Tulips, should remain in the ground and only be replanted every three or four years.

If my public assistance can be of any service to you at any time it is at your command, for I rejoice to see you adopting the system of giving plans, which is a new era in the Cabinet, and will, no doubt, be gratifying to many of your readers, and my worst wish for you is, go on and prosper.

J. M.

A List of Bulbs for flowering in the Spring.

Scilla siberica
Scilla carnea
Scilla bifolia
Scilla bifolia alba

A List of Plants for flowering in the Summer.

Verbena melindris latifolia
Verbena multifida
Verbena multifida alba
Nierembergia calycina.

A List of Bulbs for flowering in
the Spring.

Galanthus Nivalis plena
Narcissus minor
Erythronium Dens canis
Erythronium album
Crocus luteus
Crocus lagencefforus
Crocus Sabini
Crocus obvatus
Crocus albidus
Crocus elegans
Crocus leucorhyncus
Crocus spectabilis
Muscaria plena
Leucojum verra plena
 Double yellow Tulip
 Double red Tulip
 Oculas solis Tulip
 Early single Tulip
Narcissus jonquilla
Narcissus angustifolia
Scilla non scripta alba
Scilla non scripta carnea
Anemone apennine
Anemone nemorosa plena
Anemone double scarlet
Anemone double crimson

A List of Plants for flowering in
the Summer.

Lobelia unidentata
Verbena radicans
Lobelia erinus
Tournefortia heliotropioides
Lotus jacobœus
Lobelia axilaris
Nirembergia gracilis
Verbena Tweediana
Verbena incisa.
Verbena Arranania
Anagallis grandiflora
Anagallis Philipsii
Oenothera missourensis
Oenothera taraxifolia
 Pink nosegay *Geraniums*
 Scarlet nosegay *Geraniums*
 Frogmore scarlet do.
 Prince of Orange and Princess
 Charlotte do. to be mixed
Heliotropium peruvianum
Petunias of varieties
Calceolarias of varieties
Senecia elegans
Phlox Drummondii
Verbena venosa
Salvia chamædryoides
Alonsoa linarifolia

ARTICLE VI.

A LIST OF THE MOST SUPERB ROSES IN THE VARIED CLASSES.

SELECTED BY MR. CHARLES WOOD, MARESFIELD NURSERY, UCKFIELD,
 SUSSEX.

CONSIDERING the difficulty which often occur to Amateurs in looking over an extensive catalogue of roses in order to select a few of the best in the different divisions, I have taken the liberty to annex an abridged list, of the best and most esteemed varieties which have proved to be the most distinct and remarkable in the different classes from which they are selected, sincerely hoping that it may be a guide, and prove acceptable to some of your numerous readers. I intend, with your per-

mission to forward you in spring the most approved varieties of China, Odorata, and Laurencia Roses which are considered the most worthy of cultivation.

An abridged List of Select Roses.

PORTLAND OR PERPETUAL.

Antinous, very fine cupped, dark crimson, partially spotted.
 Bernard, most magnificent rose colour.
 Claire de Chatelet, reddish purple, very fine.
 Couronne de Beranger, fine bright rose colour.
 De Trianon, fine light pink.
 D'Esquermes, large rose colour.
 Flon, compact bright rose-colour.
 Louis Philippe, dark purplish crimson, very large.
 Stanwell Perpetual, pale flesh colour.

HYBRID PERPETUALS.

Gloire de Guerrin, most splendid bright dazzling scarlet.
 James Watt.
 Pysche, bright fiery vermillion, very fine.

FOUR SEASONS.

Blush, fine cupped scmi-double blush.
 Pink, bright pink.
 Scarlet, scarlet.
 White, expanded white.

ISLE DE BOURBON.

Armosa, splendid pink, cupped.
 Aristides, rose-colour, small.
 Augustine Lelieur, large pink, very fine.
 Du Bourg, large splendid pale blush.
 Gloire des Rosamènes, bright dazzling carmine.
 Julie de Loynnes, beautiful white, flowering in corymbs.
 La Tendresse, cupped, delicate pale rose.
 Marshall Villars, fine purplish deep rose.
 Madame Désprés, splendid large lilac rose.
 Thérésita, bright rose colour,

NOISETTES.

Aimée Vibert, splendid pure white in immense clusters.

A' Buerre Frais, yellow, fading white.
 Boulogne, cupped, dark violet purple.
 Bicolor, blush and rose.
 Belle d'Esquermes, bright rose colour.
 Camellia rouge, fine red.
 Grandiflora or Lee's Noisette, fine large blush.
 Jaune Désprés, beautiful bronzy reddish nankin yellow, very
 changeable.
 Lamarque, pale sulphury straw colour.
 La Biche, very large blush.
 Rothanger.

MUSK ROSES.

Double New, very fine double yellowish white.
 Nepalensis Alba, double white.
 La Princesse de Nassau, splendid yellowish white.

MICROPHYLLA.

Alba Odorata, large whitish cream.
 Coccinea, bright scarlet rose colour.
 Hybrid Pourpre de Luxembourg.
 Nouveau Rouge.
 Rose Violacée.
 Violet Cramoisie.

BRACTEATA.

Maria Leonida, very double white tinged.
 New Macartney, single cream colour.

CLIMBING ROSES.

Sempervirens, Adelaide D'Orleans, splendid large cream
 colour.
 La Princesse Louise, beautiful blush.
 Banksian, Yellow, pure yellow, in immense clusters.
 White, splendid small pure white in immense
 clusters.
 Multiflora, Italian, semidouble bright pink.
 Laure Davoust, deep pink, changeable, very splen-
 did indeed.
 Russelliana.
 Ayrshire, Blush, fine large blush.
 Countess of Lieven, tinged white.

- Ayrshire, Dundee Rambler, white edged with rose.
 Myrrh scented, pinkish cream colour.
 Rose Angle.
 Variegated, shaded pink.
 Boursoult, Blush, immense large blush, deeper coloured.
 Crimson or Amadis, splendid bright, velvety pur-
 plish crimson.
 New Hybrid Gracilis, bright purplish rose with
 curious foliage.
 Hybrid climbing, Félicité Perpetué.
 Well's White.
 Indica Major.
 The Garland.

SWEET BRIARS.

- Carnation.
 Double Pink, very splendid double compact pink.
 Double Yellow, pale straw colour.
 Rose Angle, pink

PROVINS ROSES OR GALLICAS.

- Aspasié, globular, fine blush.
 Adzît Le Couvreur, fine light purplish rose, spotted with
 white.
 Berlise, dark purplish crimson, with red spots.
 Belle de Fontenay, bright red, with pale edge.
 Bizarre, Marbré, marbled and mottled flesh-colour.
 Camaieu, lilac rose colour, delicately striped with white.
 Compte de Murinais, spotted slate colour.
 Cleliée, rosy deep blush, very large and very splendid.
 Despienne, very double, partially edged with rosy purple,
 compact, curled, curious pink blush.
 Duc d'Orleans Ponctué, bright rose colour, elegantly spotted.
 Fanny Parrisot, pale lilac blush.
 Fanny Essler, purple spotted with rose.
 Gloire de France, pencilled bright rose.
 Gonzalve, dark red.
 Hortense Beauharnais, light blush, rather spotted.
 Hersilie, very deep spotted rose colour.
 La Petite Duchesse, a very pretty small bright scarlet, flow-
 ering in clusters.

- Lycoris, deep pink, spotted.
 La Muskowa, one of the very darkest, most splendid velvety purple.
 Madam Campan, bright rose colour, splendidly spotted with pure white.
 Philippe Quatre.
 Renonculle Ponctué, deep red ground, small double reconcellus shaped, and spotted with white.
 Robert le Diable, compact bright rose colour.
 Séphora, bright red rosy lilac.
 Triomphe de Rennes, purplish crimson red.
 Uniflore Marbrée, marbled rose, very fine.
 Village Maid, splendid light purple ground, striped with lilac.

PROVENCE ROSES.

- Adèle de Senânge.
 Antoine d'Ormois.
 Celestine, blush.
 Double yellow, very fine large sulphur and yellow.
 Des Pientres.
 Duchesne, blush, very fine.
 Fringed or crested Moss, large bright rose colour, with beautiful crested buds.
 Indiana, large blush.
 Unique Panaché pure white with rosy stripes, does not always come striped.

MOSS ROSES.

- Crimson or Damask, fine crimson.
 De la Fleche or Scarlet, purplish crimson.
 Mouseuses Zoé, rose coloured leaves, and covered with moss.
 Rouge de Luxembonrg, very deep rich crimson red, nearly purple.
 White Bath, very pure white.

ROSA ALBA.

- Belle Grise.
 Blanche Fleur, very fine double blush white.
 Deshouilliers, fine white globe.

- Félicité Parmentier, most beautiful, very double curled, splendid light pink blush.
 L'Ingenue, pure white, splendidly tinged with yellow.
 Reines des Belges, a superb pure, very double white.

DAMASK ROSES.

- La Ville de Bruxelles.
 Madame Hardy, immense large pure white globe, very splendid indeed.
 Philodamie.
 Painted Damask or Leda, splendid creamy white, beautifully margined with purple.
 Madame Feburier, fine large bright pink, occasionally flowering in the autumn.

HYBRID CHINA ROSES.

- Anjou.
 Adolphe Cachet, purplish red.
 Ancelin, large lilac rose, very splendid.
 Astarade, deep shaded violet purple
 Athalin, bright showy pink, sometimes spotted with white.
 Brenus, bright dazzling fiery red, carmine, immensely large, very splendid indeed.
 Blanc, splendid pure white in immense clusters.
 Becquet, very splendid dark rich purple.
 Belle Marie, fine lilac, rosy blush.
 Boila or La Nubienne, large globular light purple.
 Bouquet Charmant, splendid pinkish blush.
 Coupe d'Amour, small cupped, beautifully bright, pinkish rose colour.
 Coutard, splendid bright rose colour.
 Duke of Devonshire, rose colour, with lilac stripes, very large, does not always come striped.
 Delaâge, rich purple.
 Elizabeth Fry.
 Fulgens or Malton, bright fiery dazzling vivid show scarlet.
 La Tourterelle or Parni, dove colour, very beautiful.
 Las Casas, very large most magnificent rose colour.
 Las Casas D'Angérs, rose.
 Louis Phillipe 2d.
 Moyenna, very pretty cherry colour violet.

Reine de Belgique, large rosy lilac, very fine.

Riego.

Saudeur panaché or king of Roses, most splendid rosy lilac, elegantly striped with white.

Triomphe de Guerrin, splendid pale rose colour.

Thurette, deep small double dark violet, reflexed and velvety, large rosy lilac.

ARTICLE VII.

REMARKS ON THE ROSE.

Continued from page 208.

Oriana when confined a prisoner in a lofty tower, threw a wet rose to her lover to express her grief and love; and in the floral language of the East, presenting a rose-bud with thorns and leaves, is understood to express both fear and hope; and when returned reversed, it signifies, that you must neither entertain fear or hope. If the thorns be taken off before it is returned, then it expresses you have every thing to hope; but if the leaves be striped off, it gives the receiver to understand that he has every thing to fear. The pronoun *I* is understood by inclining the flower to the right, and the pronoun *thou*, by inclining it to the left.

The poet Bonnefons sent to the object of his love a nosegay consisting of a white and a red rose, the one to indicate the paleness of his complexion, caused by anxiety, and the other by its carnation tint, was to express the flames of his heart.

The flower which Philostratus dedicated to Cupid is made to speak the language of love. We are told that some persons pass through life without feeling the arrows of the young god; and we read of others who could not endure the sight and smell of roses. Mary de Medicis, it is said, detested roses even in paintings, and the knight of Guise fainted at the sight of a rose. These strange aversions are unnatural, and the objects deserve our pity.

Man alone seems born sensible to the delights of perfumes, and employs them to give energy to his passions, for animals and insects in general shun them. The beetle is said to have such

an antipathy to roses, that the odour of this flower will cause its death; from which the ancients devised the allegory, to describe a man enervated by luxury, by representing him under the image of a beetle expiring surrounded by roses.

Madame de Genlis tells us that formerly the rose was so precious in France that in several parts of that country the inhabitants, were not allowed to cultivate it, as if all but the powerful were unworthy of such a gift; and at other times we find it mentioned among the ancient rights of manors, to levy a tax or tribute of so many bushels of roses, for the provision of rose-water for their lord, whose table was also covered with rose leaves instead of napkins. The French parliament had formerly a great day of ceremony, called "Baillée de Roses," because great quantities of roses were then distributed.

We presume that it was formerly more customary to use rose water, in this country than at present, as we find amongst the charges in the account of a dinner of Lord Leiyster, chancellor, of the university of Oxford, Sept. 5th, 1570: "For iij oz. of rose-watere, for boylde meats, and leaches, gelleys, and drie leaches, and marche payne, and to wash afore dinnere iij s. ix d."

Rose water is still in such demand in Damascus, for the purposes of cookery, that many hogsheads of it are sold daily in the markets of that city.

As we now possess upwards of eight hundred different kinds of Roses, it would be in vain to attempt the description of all the varieties and sub-varieties, which nothing short of the most minute inspection can discover, and the nicest pencil pourtray. To such of our readers as wish to see the roses pictured, we recommend them to inspect the works which have lately been published in this country, and "Les Roses, par Redouté," published at Paris in three folio volumes.

Of the roses which are natives of these islands, the British Botanist of 1820, notice twenty belonging to England, four to Scotland, one to Ireland, and one to the Scilly Islands. These are made to form seven distinct species in the Hortus Kewensis, the most delightful of which is the sweet-brier, or eglantine, *Rosa, Rubiginosa* or *Eglanteria*

"By sweet-brier hedges, bath'd in dew,

————— Let me my wholesome path pursue." WHARTON.

“ Come gentle air! and while the thickest bloom,
 Convey the jasmin's breath divine,
 Convey the woodbine's rich perfume,
 Nor spare the sweet-leaved eglantine.” SHENSTONE.

It is noticed by Chaucer, as long back as the middle of the fourteenth century :

———— “ The greene herber,
 With sycamore was set and eglaterre.

This species of rose is found in chalky or gravelly soils, on heaths or hedges in most parts of Europe ; but the size and fragrance of the leaf is greatly improved by cultivation, that has produced six varieties of this fragrant leaved brier, the most beautiful of which are the double-flowered and the double moss brier. It is hardly possible to scatter this shrub too thickly in the plantation, and when we pass hedges of this odorous thorny plant, after a spring shower, we feel not only delighted but refreshed by the fragrance.

The name of Eglantine, by which the sweet-leaved brier is known, is taken from the French *eglantier*. That we so often find French names given to our native plants is not singular, as after the conquest, French became the written language of this country for many centuries. The Greeks called all the wild roses or briars *Kunorodon*, because the root was thought to cure the bite of a mad dog, and the Latins for the same reason, named them *canina*, and from them we call one of our hedge briars, the Dog-rose.

It is the Dog-rose, *rosa Canina*, that decorates our hedge-rows with its tall arching branches and lively odorous flowers in the months of June and July. From the petals of this blush-coloured wild rose, a perfumed water may be distilled, which is thought to be more fragrant than that from garden roses. The leaves of this brier, when dried and infused in boiling water, are often used as a substitute for tea, and have a grateful smell and subastringent taste.

The fruit of this brier also forms one of the greatest beauties amongst the autumnal tints, being of a bright scarlet, perfectly smooth and glossy, and of an elegant oblong shape. This brier is often called the hip tree, from the name of the fruit.

(To be continued.)

R E V I E W .

The Rose Fanciers Manual.—By Mrs. Gore. 12mo, pp.434.
London, 1838.

In the preface, Mrs. Gore informs us that she has undertaken this work “for the use of the inexperienced English amateur; and, in order to make it practically available, scientific terms have been, as far as possible, laid aside, and the simplest form of language adopted.” (p. vi.) In the remainder of the preface, we are informed that, though roses are easier of propagation in France they attain their highest perfection in England; in proof of which, reference is made to the nurseries of the principal English rose growers. The rose attains a larger size in England, from the comparative moderation and humidity in the climate; and the blossom of any individual kind of rose remains a longer time expanded in our cloudy atmosphere, than under the intense heat and light of a Continental sun, unobscured by clouds or mists.

“The real source of the eminence of the French in the culture of roses, is the fact that it absorbs the almost exclusive attention of their horticulturists. The high price of fuel places the cultivation of the tender exotics (by which English amateurs are chiefly engrossed) almost out of the question; and, as the French adhere to the wise custom of repairing to their country seats in May, and quitting them in December, their attention and money are appropriated to the improvement of such plants as adorn the flower-garden during the summer season. They care little for any that cannot be brought to perfection in the open air; and precisely the same motive which promotes the cultivation of the dahlia in England, has brought the rose to greater perfection in France.

“The first impulse was given to the culture of the rose in France at the commencement of the present century, under the auspices of the Empress Josephine, who caused her own name to be traced in the parterres at Malmaison with a plantation of the rarest roses, at a considerable expense, by Dupont, the gardener and founder of the celebrated collection attached to the Luxemburg palace.

“At the death of Dupont, Monsieur Hardy succeeded to his office; who for twenty-five years has been making annual sowings of seeds obtained from all quarters of the globe, with a view to the creation of varieties; and is probably the most scientific rose grower in Europe. The Chamber of Peers, however, and its grand referendary, by whom his services are remunerated, have lately rendered the rose school of the Luxemburg Nursery secondary to the school of vines; a matter of important national interest to the land-cultivators of France.

“The original roses of the Luxemburg, as well as those of the royal nursery at Trianon, are not purchaseable; but are given away to respectable applicants or exchanged for other plants with eminent nurserymen, by whom they are propagated and dispersed. In this way the *Rosa Hardii berberi folia*, obtained this year by the accidental impregnation of that remarkabl

plant, the *Rosa simplicifolia*, or *R. monophylla* [*Lowea berberifolia* Lindl.] *R. microphylla* growing near it, has fallen into the hands of Cels, by whom it will be shortly placed in circulation.

"This especial dedication of the Luxembourg gardens to the cultivation of roses has done much towards their multiplication in France; while the Jardin des Plantes, under the able care of Neumann, as well as several provincial botanic gardens, have taken part in the cause. At Nantes, for instance, was produced a few years ago, from the accidental impregnation of a Macartney rose by a *Rosa indica odorata*, the beautiful *R. Maria Leonida*, now in general favour, which flowers in great perfection till the commencement of winter; while among the Paris nurserymen remarkable as rose-growers, Noisette has given his name to a most beautiful and prolific variety, obtained in the first instance from Charleston, in the United States, by his brother, Philip Noisette. Having amassed a considerable fortune, the Noisettes no longer continue to raise roses from seed; and this branch of cultivation is engrossed at Paris by Laffay, a most enthusiastic and intelligent gardener, and Vibert, who has written some valuable treatises on the culture of roses. Cels and Sisley-Vandael export largely to England; the latter excelling in the production of the Rose Thé, or scented China rose. Calvert and Prevost of Rouen also dispatched large collections to England; and Sedy and Plenty, at Lyons, have obtained many curious varieties. Boursault's celebrated collection has fallen to decay; while that of one of the first growers who attained much distinction, Descemet of St. Denis, was cut up by the English troops in 1814; when the horticulturist, unable to obtain indemnification from government, proceeded to Russia, and re-established himself with honour and success. [He has the management of the government garden at Nikitka in the Crimea.]

"In the royal rosary at Versailles, standards may be seen which have attained 18ft. in height, grafted with twenty different varieties of rose. The same branch of rose culture is practised with great success at Brussels and Diisseldorf. In the imperial gardens at Monza, near Milan, thirty-nine varieties of China roses have been obtained by the late celebrated Villaresi; and Genoa, Marseilles, and Avignon have added to the number. At Lyons, much attention has been devoted to the culture of roses; and among other rarities now flourishing in their gardens, they have that beautiful miniature, the Lawrencean rose (which in England attains a height of between 2 and 6 inches).

"The numerous varieties of our native Scotch rose are in high estimation on the Continent, as well as many others obtained in England; such as the *R. Smithii*, a double yellow rose, obtained by the gardener of Lady Liverpool; the *George IV.*, obtained by Rivers, jun.; the *Stanwell perpetual*, an accidental hybrid, found in Mr. Lee's garden, at Stanwell; and many varieties of moss roses, the greater number of which beautiful family were obtained in England. The China or Bengal rose, sent to the Botanic garden at Kew about the year 1800. The *Rosa Banksiæ*, and that singular rose, *R. microphylla*, both natives of China, also reached the Continent by means of the botanists of England.

"There is not a more perplexing or more amusing branch of horticulture, than that of sowing with a view to the production of new varieties. Every season affords valuable acquisitions; and at the annual epoch of flowering, the excitement of the enthusiastic rose-grower is at its height. Laffay, for instance, has this season obtained a vigorous and very thorny variety of *Rosa Banksiæ*; which, should it fulfil his expectations, by producing, next summer, flowers of a vivid pink, will afford a highly valuable addition to the Banksian tribe.

"In addition to the interest excited by his seedlings, the attention of the rose-grower is eagerly directed to the accidental varieties produced by what is called 'a sport,' or branch losing the habit of the plant on which it grows, and assuming new specific characters. In this way the Bath moss rose, or

mossy unique, was originated at Clifton; and the beautiful *Rosa cristata* in Switzerland. The Rose unique was discovered at the commencement of the present century, in a cottager's garden, among a plantation of roses of the hundred leaved or cabbage, kind, which is peculiarly subject to sport, either from the excessive vigour or imperfect vegetation of the subject. The mossy rose de Meux, or pompon mosseux was discovered five and twenty years ago, in the garden of an old lady in the west of England, of whom it was purchased by a nurseryman for five guineas; certainly a sport, as the rose de Meux is known never to bear seed in England. The Ayrshire roses were chiefly obtained from seed at Dundee, in Scotland. Brown's superb blush was raised at Slough, near Windsor; a seedling of the *Rosa indica odorata*, and the yellow sweet briar, at Pitmaston, by Mr. Williams. To enter into the origin of even the finer modern varieties would, however, be an endless task." (p. xiii.)

(TO BE CONTINUED.)

A Practical Treatise on Constructing and Heating Horticultural Buildings—By J. W. THOMPSON. Published by Groombridge, Panyer Alley, London.

This valuable Treatise being the production of a celebrated gardener of long experience, and of well known scientific and practical attainments as an horticulturist and landscape gardener, we think it a duty we owe to all horticulturists, whether amateur or gardener, to direct their attention to this little publication; no gentleman having a hothouse to manage or build, or to heat with hot water, or by any other mode of raising temperature, should be without this truly instructive work.

Thompson's observations are the result of long experience, and in our opinion the conclusions he has arrived at for the management of hothouses, &c., must accord with the views of every practical gardener. His observations relative to non-practical garden architects being consulted on horticultural erections, and his strenuously advocating the cause of every practical gardener interested in these subjects, should inspire in their breasts a feeling of gratitude, and induce them in return, to render him every assistance in their power by introducing his plan of boiler for heating with hot water.

We observe that the opinions of 'The Civil Engineer,' and 'The Mechanic's Magazine,' who have written on his plan of boiler, is in accordance with our own, and they fairly admit it to be the best and most economical system yet known for heating with hot-water.

We consider his conclusions at the end of the work, for the management of hothouses, &c., to be founded on sound philosophical, and practical reasoning.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON THE FLOWERS OF THE LUPINUS POLYPHYLLUS ALBUS DROPPING OFF, &c.—I have been struck with the falling off of the florets of the Lupinus Polyphyllus albus, (sometimes before they are fully expanded), and I have never had the satisfaction of growing it in the same perfection as the blue. I have had the opportunity of trying it in various situations in my garden, and in different kinds of soil, and the same thing occurs throughout this neighbourhood. I have remarked the circumstance for the last three years. Perhaps you, or some of your subscribers could explain it, and point out a remedy, by your attention to which, you will oblige

Your Obedient Servant, B.

Alburgh, near Liverpool, July, 1838.

ON A LIST OF RHODODENDRONS, &c.—A Constant Subscriber would be much obliged by an article on the Rhododendron, including a list of the best sorts for general purposes, particulars of the growth, cultivation, and method of increasing.

Can Magnolias be best increased by budding, grafting, or layering? if by either of the former, what kind of stocks is most suitable? and at what period of the year is the operation to be performed? I have a fine variety of *M. laurifolia*, which I am desirous of increasing as soon as possible.

(The other queries sent by A Constant Subscriber, will be inserted next month—COND.)

REMARKS.

BIRMINGHAM DAHLIA SHOW.

Held on September, 12th, and 13th.

Great as was the public expectation, from what had been the current report of the beautiful display that might be expected from this annual exhibition, the result proved that the anticipations which had been raised, were fully realized. The company was very numerous and highly respectable.

THE PRIZES WERE AWARDED TO THE SUCCESSFUL COMPETITORS:
AS FOLLOWS.

Premier Prize, twenty-four blooms. Mr. Widnall, Grantchester, near Cambridge—Widnall's Ne plus Ultra, Duke of Devonshire, Rienzi, Cambridge Hero, Horatio, Conductor, Royal Standard, Suffolk Hero, Dodd's Mary Queen of Scots, Variabilis, Unique, Rhoda, Topaz, Lady Kinnaird, Glory of the West, St. Leonard's Rival, Ruby, Springfield Rival, Conqueror of Europe, Ovid, Eva, and Brown's Sarah.

Amateurs, twenty-four blooms. First prize.—Mr. Searle, Cambridge—Countess of Mansfield, Kingscote Rival, Rienzi, Widnall's Perfection,

Squibb's Purple Perfection, Conqueror of Europe, Knight's Victory, Sir H. Fletcher, Topaz, Ruby, Springfield Major, Rosa Elegans, Blandina, Etonia, Jeffrie's Triumphant, Suffolk Hero, Middlesex Rival, Sarah, Countess of Torrington, Beauty of Lullingstone, Dodd's Mary, Royal Standard, and Conductor.

Second Prize.—Mr. Hellier, Oxford—Middlesex Rival, Dodd's Mary, Sir H. Fletcher, Suffolk Hero, Stone's Yellow, Louthianam, Oxford Rival, Diadem of Flora, Knight's Victory, Beauty of Bedford, Topaz, Juliet, Springfield Rival, Glory of the West, Grand Duke, Day's Mary Anne, Blandina, Napoleon, Lady Kinnaird, Bontesholl, Ruby, Flower of Eden, Bronze, Pandora.

Third Prize.—Mr. Sadler, at Sir Charles Throgmorton's, Coughton Court—Rival Sussex, Smith's Lord Byron, Elphinstone's Purple Perfection, Sir Isaac Newton, Royal Standard, Clio Perfecta, Marquis of Lothian, Dodd's Mary, Hopwood's Lady Anne, Rosea Superba, Foster's Eva, Jeffrie's Triumphant, Ansell's Unique, Beauty of Lullingstone, Diadem of Flora, Marchioness of Tavistock, Knight's Victory, York and Lancaster, Doctor Halley, Girling's Horace, Rosetta, Middlesex Rival, Hermoine, and Melberry Rival.

Fourth Prize.—Mr. Mitchell, Lord Vernon's, Sudbury Hill, Derbyshire—Sir H. Fletcher, Dodd's Mary, Lady of the Lake, Lady Cowper, Hopwood's Lady Ann, Countess of Sheffield, Springfield Rival, Mount Pleasant Rival, Giraff, Jeffrie's Triumphant, Goliath, Lord Liverpool, Topaz, Sir Walter Scot, Cassina, Hermoine, Rival Sussex, Rhoda, Burgundy, Beauty of Berkshire, Brown's Sarah, Vandyke, and Wilmer's Superba.

Fifth Prize.—Mr. James Burberry, Stoneleigh—Kelnor's Etonia, Girling's Topaz, Kingstone's Nimrod, Sir Edward Sudgea, Brown's Beauty, Grant Thornburn, Suffolk Hero, Maria Edgworth, Dodd's Mary, Sir H. Fletcher, Cambridge Hero, Brown's Sarah, Day's Oxford Rival, Lord Stanley, Sussex Rival, Ansell's Unique, Barrat's Stuart Wortley, Springfield Major, Clarke's Julia, Conqueror of Europe, Blandina, Calliope, Addison, Bowman's Premier.

Amateurs, twelve blooms. First Prize.—Mr. Searle—Knight's Victory, Squibb's Purple Perfection, Rhoda, Hope, Etonia, Royal Standard, Ruby, Jeffrie's Triumphant, Topaz, Suffolk Hero, Conductor, and Countess of Torrington.

Second Prize.—Mr. Foreman, Chellaston—Topaz, Marquis of Lothian, Summum Bonum, Knight's Victory, Dodd's Mary, Pandora, Brown's Beauty, Bontisholl, Jubilee, Simmond's Alpha, Lord Lyndhurst and Royal Standard.

Third Prize.—Mr. J. Burbury, Stoneleigh—Sussex Rival, Marquis of Lothian, Whale's Royal Standard, Dodd's Mary, Foster's Eva, Cambridge Hero, Conqueror of Europe, Widnall's Duke of Devonshire, Girling's Topaz, Widnall's Conductor, Maria Edgworth, and Clark's Julia.

Fourth Prize.—Mr. J. Mussell, Mr. C. Retheram's gardener—Purple Perfection, Corrinne, Springfield, Duke of Devonshire, Dodd's Mary, Suffolk Hero, Squibb's Purple Perfection, Brown's Beauty, Sir H. Fletcher, Conqueror of Europe, Marquis of Lothian, and Dodd's Mary Queen of Scots.

Fifth Prize.—Mr. Thomas Taylor, Hinckley—Sir H. Fletcher, Dodd's Mary, Unknown, Rival Suffolk, Addison, Blandina, Perfection, Springfield Rival, Suffolk Hero, Perfection, Glory of the West, and Ruby.

Sixth Prize.—Mr. Hellier—Ruby, Napoleon, Springfield Rival, Mrs. Broadwood, Sir H. Fletcher, Dodd's Mary, Oxford Rival, Sam Weller, Allman's Grand Duke, Bath Rival, Day's Mary Anne, and Suffolk Hero.

Amateurs, six blooms. First Prize.—Mr. Searle—Suffolk Hero, Blandina, Knight's Victory, Topaz, Royal Standard, and Dodd's Mary,

Second Prize.—Mr. Hellier—Clio Perfecta, Suffolk Hero, Dodd's Mary, Sir H. Fletcher, Oxford Rival, and Beauty of the Grove.

Third Prize.—Rev. Mr. Cresswell, Radford, near Nottingham—Pandora, Bontisholl, Glory of the West, Beaumont's Premier, Royal Standard, and Suffolk Hero.

Fourth Prize.—Mr. Henney, Wolverhampton—Marquis of Lothian Suffolk Hero, Sir H. Fletcher, Independent, Middlesex Rival, and Brown's Beauty.

Fifth Prize.—Rev. Frederick Smith, Elmshurst—Dodd's Mary, Napoleon, Fisherton Rival, Springfield Rival, Topaz, and Conqueror of Europe.

Sixth Prize.—Mr. Mussell—Dodd's Mary, Topaz, Marquis of Lothian, Suffolk Hero, Foster's Hero, and Etonian.

Nurserymen, twenty four blooms. First Prize.—Premier Cup, Mr. Widnall, as above.

Second Prize.—Mr. Brown, Slough—Royal Standard, Suffolk Hero, Topaz, Squibb's Purple Perfection, Conqueror of Europe, Jeffrie's Triumphant, Beauty of Berks, Maria Edgworth, Hope, Mrs. Wilkinson; Hero of Navarino, Metropolitan Yellow, Unique, Conductor, Eva, Marquis of Lothian, Dodd's Mary, Boatisholl, Robert Burns, Lady Kinnaird, Rienzi, Premier, Springfield Rival, and Rival Sussex.

Third Prize.—Mr. Hodges, Cheltenham—Dodd's Mary, Widnall's Conductor, Widnall's Duke of Devonshire, Royal Standard, Wale's Beauty of West Riding, Hope, Stamford's Perfection, Clio Perfecta, Rival Granta, Topaz, Springfield Major, Lady Dartmouth, Warminster Rival, Suffolk Hero, Boadicia Cormack's, Widnall's Rienzi, Rival Sussex, Widnall's Perfection, Foster's Eva, Girling's Ruby, 'Springfield Rival, Girling's Exquisite, Knight's Victory, and Ansell's Unique.

Fourth Prize.—Mr. Bates—Knight's Victory, Dodd's Mary, Marquis of Lothian, Countess of Torrington, Springfield Major, Foster's Eva, Duke of Rutland, Clio Perfecta, Squibb's Purple Perfection, Oxford Rival, Elphinstone's Purple Perfection, Ansell's Unique, Macket's Hellenia, Suffolk Hero, Widnall's Livinia, Carmine Perfection, Jeffrie's Triumphant, Glory of the West, Ruby, Lady Vernon, Blandonia, Marquis of Northampton, Pandora, and Sir H. Fletcher.

Fifth Prize.—Messrs. Mountjoy and Son, Ealing, Middlesex—Sir F. Burdett, Springfield Major, Ne plus Ultra, Middlesex Rival, Ovid, Bontisholl, Clio Perfecta, Essex Rival, Sylvia, Jeffrie's Triumphant, Perfection, Squibb's Purple Perfection, Grant Thornburn, Springfield Rival, Dodd's Mary, Exquisite, Unique, Independant, Dodd's Queen of Scot's, Harwood's Defiance, St. Leonard's Rival, Ruby, Conductor, and Rival Sussex.

Nurserymen's, twelve blooms. First Prize.—Mr. Widnall—Widnall's Rienzi, Widnall's Conductor, Eva, Springfield Rival, Suffolk Hero, Topaz, Dodd's Mary, Ruby, Unique, Lady Kinnaird, Brown's Sarah, and Marquis of Lothian.

Second Prize.—Mr. Brown, Slough—Middlesex Rival, Conqueror of Europe, Rienzi, Beauty of Berks, Bontisholl, Unique, Oxford Rival, Lady Kinnaird, Bowling-green Rival, Eva, Topaz, and Sir H. Fletcher.

Third Prize.—Mr. Earl, Bristol road, Birmingham—Barratt's Hero of Wakefield, Barratt's Honourable Stewart Wortley, Beauty of Kingscote, Dodd's Mary, Widnall's Reliance, Widnall's Conductor, Springfield Rival, Brown's Corinna, Maria Edgworth, Widnall's Duke of Devonshire, Middlesex Rival, and Conqueror of Europe.

Fourth Prize,—Messrs. Mountjoy, and Son, Ealing,—Summum Bonum, Dodd's Mary, Middlesex Rival, Metropolitan Yellow, Jeffrie's Triumphant, Springfield Rival, Ansell's Unique, Bottisholl, Lord Byron, Addison and Ruby.

Fifth Prize—Mr. Wilmer, Sunbury, Middlesex,—Topaz, Heal's Glory, Dodd's Mary, Springfield Rival, Clio Perfecta, Widnall's Duke of Devonshire, Grant Thornburn, Holman's Scarlet Perfection, Bowman's Premier, Hope or Metropolitan Rose, Foster's Eva, and Riensi.

Seedlings. First Prize—Cup, Mr. Smith, Worcester.

Second Prize—Mr. Widnall.

Third Prize—Mr. Willmer.

Fourth Prize—Messrs. Brown, of Slough.

Fifth Prize—Mr. Widnall.

Sixth Prize—Mr. Willmer.

LIST OF NEW AND RARE PLANTS.

HYDROTHENA MELEAGRIS—From Mexico. It has the appearance of a *Tigridia* bearing the flower of a *Fritillary*; the flower stem rises half a yard high, and the spathe contains four or five flowers, which are exceedingly fugitive, and extremely delicate, so as to scarcely bear touching, but being immersed in spirits of wine become tough, and like fine parchment; it has bloomed in the collection of John Rogers, Esq Jun., Seven Oaks, Kent.

CYNOGLOSSUM GRANDIFLORUM—Seeds of which were sent from Bombay; it is an herbaceous plant, growing a yard high, producing upon the branching stems racemes of fine bright blue flowers edged with white, having a very pretty appearance.

MORRENIA ODORATA—From Buenos Ayres; in the greenhouse it blooms from July to September, it is a twining plant, the flowers having a resemblance to, and fragrance of *Pergularia odoratissima*; it has been introduced by the Hon. W. F. Strangeways.

CALYSTEGIA SEPIUM—From New Holland. Very much like the common large flowered Bindweed of this country, only the flowers are pink and somewhat larger; it has bloomed in the garden of the London Horticultural Society.

RÆPERIA AURANTIACA—From New Holland. The flowers are rather small, of an orange yellow colour; it has been in bloom in the open border (in the garden of the London Horticultural Society) since the commencement of July.

PSORALEA CINEREA—An annual from New Holland. The flowers are rather small, of a purplish colour, not very interesting.

PIMELEA CRINITA—From Swan River Colony. It has recently bloomed in the fine collection of Robert Mangles, Esq., Sunning Hill, Berks; the flowers are white, having something of the fragrance of the *Heliotropium*.

CAMPANULA CARPATICA ALBA. The well known showy blue flowered species, has now a rival in a white flowered hybrid, and when grown in contrast, would have a fine effect in the flower bed; every flower garden ought to have both kinds, and only growing from one to two feet high; it is recommended for any situation however exposed.

PENTSTEMON ANTWERPENSIS.—The whole plant in its foliage, spikes of flowers, &c., have much the resemblance of *P. barbatus*, (Synonym *Chelone barbata*) excepting the difference in colour of the blossoms, which in this new species are of a cream colour tinged with pale rose, and have a delicate appearance. There is also a variety with pure white blossoms of *P. barbatus* in flower at Mr. Young's, Epsom Nursery.

REFERENCE TO PLATE.

LILIUM SPECIOSUM. This very splendid flowering species was introduced into this country from Japan by Dr. Siebold. It is not only handsome on account of its clear deep rose coloured flowers which seem all rugged with rubies and garnets, and sparkling with crystal points, but has a very delightful fragrance. Kämpfer said, when speaking of its excellence, that "it is magnificent in beauty."

The plant will flourish well if kept from the severity of winter, either in a cold pit or greenhouse. During the present summer we have seen splendid specimens growing in the open border in good situations. The finest we saw was in the conservatory of Messrs. Loddiges's. The flower stem rises from three to five feet high. It likes a light and rich loamy soil.

PENSTEMON HETEROPHYLLUM, various leaved. The late Mr. Douglas sent this pretty species from California. It is perfectly hardy and blooms from May to October. It has a somewhat shrubby appearance, and blooming so profusely has a very pretty effect. It deserves a place in every flower garden.

LOPHOSPERMUM SCANDENS. This is the proper species of that name, and not the *L. erubescens* which has adorned our gardens, &c for the last seven years. The present species was introduced into this country in 1837. The plant is a profuse bloomer, and when grown in the open border, makes a pretty bush about half a yard high. It also blooms profusely when trained. The flowers are not of so bright a colour as the *L. erubescens*, but nevertheless showy.

 FLORICULTURAL CALENDAR FOR OCTOBER.

PLANT STOVE—Plants of Cactuses that have been kept in the open air or greenhouse, now put into the stove, will bloom immediately.

GREENHOUSE-PLANTS.—Those plants that were removed into the greenhouse last month, should have plenty of air given them every mild day; but the lights should be close shut up at night, also when cold, damp, wet, or other bad weather prevails, excepting a little at the doors about the middle of the day. The plants should not be watered in the broad-cast manner, as it is termed, but should be attended to singly, so that no plant may be watered, but what is actually dry. To water in the evening is detrimental to the plants and ought to be avoided. Camellias, if wanted to flower early, should now be placed in a stove.

FLOWER GARDEN, &c.—Auriculas must now be removed to their winter quarters and all dead leaves picked off. Carnation layers potted off should be placed for protection during winter. Offsets of the herbaceous kinds of *Calceolarias* in beds or borders, should now be potted off. Cuttings of all greenhouse plants that have been grown in the open border, in beds, &c. such as *Heliotropes*, *Geraniums*, shrubby *Calceolarias*, should be taken off as early as possible in the month, and be struck in heat, in order to have a supply of beds, &c. the next year. Hyacinths and other bulbs, should be potted early in the month for forcing. Seeds of *Schizanthus*, *Stocks*, *Salpiglossis*, and similar kinds of plants wanted to bloom early next season, should be sown the first week in the month in pots, and be kept from frost during winter. Perennial and biennial flowers may be divided, and planted off where intended to bloom next year. A cover of soil round the roots should be given to Dahlias, lest a sudden frost coming should injure the crown buds. Seeds of all kinds of flowers not yet gathered, should be collected early in the month or they will be liable to injury by frost.

Univ. of
CALIFORNIA



Iridodolus var Queen Victoria.



I. var picta blandas.



I. var Venus.



I. var Victor.

Alfred A. Knapp, sc.

THE
FLORICULTURAL CABINET,

NOVEMBER, 1st, 1838.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.
ON THE CULTURE OF THE DAHLIA.

BY A DAHLIA GROWER.

No flower is in so universal estimation as the Dahlia, and whether we view its pure masses of varied foliage, the majestic mien of the plant, the size and symmetry of its flowers, or the brilliant and infinite variety of its splendid colours, as exemplified in the multitudinous varieties of it in cultivation, we cannot but acknowledge that it is richly worthy the esteem it has so fairly won from the British Floriculturist. In the neat little garden of the peasant or the gay parterre of the rich it finds a hearty welcome. Even the stupid inattentive mortals that walk on mother earth unmindful of her beauties and unmoved by all her rich garniture, tell us the Dahlia is a beautiful flower. Never for any other plant have we heard of £100 being subscribed for distribution of prizes as at Birmingham this season, to reward the best cultivators of this star of the earth. Who that can look with complacency on the Sun-flower, the Marigold, or China-aster, the favourites of our ancestors, will not rise into raptures at the sight of the best varieties of the Dahlia

But the object of this lucubration is not merely to laud the flower I so much admire, or sing its praises however justly they

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cc

they may be due, but to notice some particulars necessary to be attended to in the cultivation of this national favourite. I have been stimulated to send you this communication by the reflection that any thing however trifling that would tend to improve the cultivation of the Dahlia, would find a ready acceptance both with you and your numerous readers.

I wish, then, to direct the attention of your subscribers to a particular disease incident to the Dahlia and other plants, at the same time allow me to say, that were gardeners to pay more attention to the pathology of plants, sending you accounts of the causes and cures of the various diseases happening to these objects of their care, there would be fewer disappointments and greater perfection attained. In heavy soils the Dahlia is occasionally subject to the disease generally called "curl," the infant leaves as they are unfolded, are perforated with numerous holes, the margins of which are brownish as if burnt, they then become rigid, curled, and succulent, and the whole plant unhealthy and dwarfish. The principal stem almost ceases to increase in height, and numerous suckers and lateral branches rise from below, forming a dense bush, the summits of these growths, in their turn, also become diseased. The flowers of such plants, as might be expected, are small, irregular, and unsymmetrical, and however excellent the variety may be, they yield nothing but disappointment to the anxiously expectant cultivator. Kings and queens, dukes and lords, and the numerous gentry that show off their splendors in the Dahlia ground, will put on a mean ragged and most plebeian aspect, conferring no honour either on the cultivator, or the personages they represent. I have, for several years, been puzzled as to the cause of this disease. Loudon has afforded me no hint in his Cyclopædia, Paxton's Treatise on the Dahlia I have not seen, and as the complaint has become very general in this neighbourhood during the present season, I have attended more particularly to the disease. I find it to be occasioned by an insect, the *Cymix chloroterus* or green bug of Linnæus; a transparent winged insect, about one-fourth of an inch in length, with a large proboscis generally folded under the thorax. It inhabits the extremities of the Dahlia, grows and feeds upon the under surface of the unexpanded and infantine leaves, thrusting down its long proboscis amongst those which are most tender; I find the same insect committing similar devastation on a variety of other plants the *Potentilla formosa*, *atrasanguinea*, and

Russeliana Althea rosea, even the herbs *Mentha viride*, and *Melissa officinalis* have not escaped its ravages. I have also caught it on terminal shoots of some species of *Prunus*. The same insect produces the curl in the potatoe, about the cause of which, so many volumes have been ignorantly and erroneously written. These insects are never numerous, two or three on one plant are amply sufficient to blast the hopes of the cultivator either of the Dahlia or any other of the numerous plants it infests. The best remedy, in my opinion for the above evil, is to look over the plants attentively every morning for a week and pick off the insects, if any are to be found. In doing which it is necessary to be careful, as the insect when disturbed by the approach of an enemy, instinctively throws itself down among the leaves and lower branches, and if again disturbed it precipitates itself to the ground. If it escapes the hands of the destroyer, it again climbs the stem or branch to its summit, and again commences its mischievous depredations: so that it is necessary for the gardener to exercise some tact, or he will fail in capturing his enemy. The insect in its pupa state, is without wings, and in both states it is exactly the colour of the foliage of the plant.

Several other insects inhabit the Dahlia in wet seasons, a small species of acarius infests the flowers. The *Cicoda spumaria* is not unfrequent on the Dahlia, in its pupa state it feeds upon the juices of the plant, and produces those frothy appearances vulgarly called cuckoo spit; the perfect insect is about the size of *Cymex*, from which, however, it may be easily distinguished by its brownish hue. A species of *aphis* is also common on the Dahlia covering the young shoots and sucking the juices of the plant through the pores of the epidermis; they may be distinguished from the *Cymex* by their being smaller, more numerous, and more sluggish in their habits.

The other insects that inhabit the Dahlia, I may perhaps notice in a future communication; but of all the insects that infest it, by far the most injurious is the *Cymex*, and I would advise your readers, who, doubtless are all Dahlia growers, and wish to grow it well, to be particularly on their guard against the attacks of this insidious and destructive enemy.

A CULTIVATOR OF THE DAHLIA.

Todmorden, Sept. 14th 1838.

ARTICLE II.

ON FACILITATING THE GERMINATION OF SEEDS.

BY AMICUS.

Iodine facilitates the germination of seeds much more than chlorine, if they be watered with a solution of it: even those which have apparently lost all vital power, may be frequently made to germinate by Iodine.—Sharon Turner's Sacred History of the World, Vol. I. p. 106, (might not this be useful with foreign seeds? Any chemist could give information as to the proper solution of Iodine for the purpose.)

The same work Vol. I. p. 108-9, mentions the following products, of foreign countries. Could any of them be naturalized in Great Britain? or if not there, in any of her colonies, so as to form articles of profitable commerce?

The *Myrica Pensylvanica* yields an annual supply of vegetable wax. M. Serret mentions it as a small arbuste, which may be easily cultivated in poor soils. From a surface of three hundred and fifty square feet he obtained every year from a pound and an half to two pounds of wax. Bull. Univ. 1829, p. 172. Humboldt also mentions a palm, the trunk of which was covered with a vegetable wax, which the natives employed for their tapers.

The Palo de Vaca in South America (gives a copious emission of actual milk. Humboldt found this tree in Venezuela. Lockhart met with many in Carraccas. One was an hundred feet high and seven in diameter. The milk was agreeable, and used by the inhabitants. Smith saw it on the river Demerary. It was there called *Hya Hya*. The milk was drinkable and rich; thicker than that of cows. It was not bitter, but a little viscuous, and mixed with coffee, it could not be distinguished with animal milk. Bull. Univ. 1830, p. 125, 295. Humboldt describes it as a handsome tree, resembling the broad leaved star-apple. Upon making incisions in the trunk, a glutinous milk issues abundantly of a pleasing and balmy smell, and it flows most copiously at sun-rise. It seemed peculiar to the Cordilleras of the coast.

Another tree in Guayaquil produces a fine wool. Ceibo wool is the product of a very high and tufted tree. The wool is contained in a pod near two inches long and an inch thick. It is a tuft like cotton, softer to the touch and of a reddish cast. Its filaments

are so fine that the natives think that it cannot be spun, and only use it to fill mattresses. Ulloa's Voyage to New Spain.

One in China secretes a tallow, like animal fat. This has lately been introduced into the Mauritius, and successfully cultivated. The tallow obtained from it is stated to be equal to that which is obtained from the fat of animals.

Mr. Ward exhibited to the Linnæan Society, a portion of the Lace-bark Tree of Jamaica (*Lagetta lintearia* of Jussieu). The tree grows on the high rocky hills of Jamaica, to the height of twenty feet: the bark is thick, and may be separated into twenty or thirty laminae, white and like gauze. Caps, ruffles, &c. have been made out of this. Lit. Gaz. No. 791, March 17th 1831.

The *Tillandsia* of Buenos Ayres, yields on incision, a copious quantity of pure water, so good, that the woodmen in the forests never take any with them. They perforate the plant near the root, and the water gushes out as clear as crystal. From the fullest plants, about two quarts may be obtained. Andrew's Journey. This last might, perhaps, be introduced with advantage in climates resembling its own, and situations where water is not abundant. It is regretted that the references to the books quoted by Mr. Turner are so much abbreviated, and that the transcribers cannot add to them, any bookseller on a large scale, or other persons conversant with scientific works, would at once recognize those named.

AMICUS.

October 24th 1838.

ARTICLE III.

ON THE CULTURE OF THE HYACINTH IN BEDS OR POTS.

BY H. L. ISLINGTON.

I HASTEN to fulfil my promise by rendering an account of the method observed by many amateurs and florists in cultivating Hyacinths in beds and pots, and which is adopted by me as being the most preferable. The observations I am about to offer thereon, should be as succinct as the subject admits, and be strictly confined to practical results, for mere theoretical statements in this, as in nearly all other matters, bewilder rather than instruct. Being an enthusiastic admirer of the flower, I have taken no ordi-

nary pains to produce a good bloom, and can, therefore, the more confidently suggest a few hints respecting the culture of it. It has always appeared to me, as well as to many with whom I have conversed upon the subject, to be a matter of regret that comparatively so little attention should be bestowed on this flower: the Tulip has numerous fanciers, and so have Carnations and Auriculas, whilst the Hyacinth, though not inferior in beauty seems as to blooming it in beds to be too generally neglected, and yet a more beautiful object amongst all those which attract the eye in a flower garden is rarely seen, the effect produced by a glance at an assemblage of so beautiful a flower, especially when well arranged, is dazzling, and a close inspection will be found to increase the gratification derived therefrom, added to which the fragrance emitted by them is peculiarly sweet, and is not surpassed by the Mignonette or the Tuberose.

The most eligible part of a garden for a bed is that with a southern aspect, and considerably distant from trees and large shrubs, as the droppings to which plants beneath are subjected, prove extremely prejudicial; the season for planting is during this and the following month, the precise time being indicated by the appearance of the root itself, which I noticed in my remarks that were inserted in the last Number, a repetition of it therefore is unnecessary. The portion appropriated should be excavated to the depth of about two feet, the earth at the bottom loosened and rendered fine to about six inches deeper, and then raked smooth, this process will take but little time, and may be attended with advantage, the hollow should then be filled with the following compost; one-third of good garden earth, one-third of sea or river sand, as coarse as can be obtained; one-fourth rotten dung, about three years old: and the remainder vegetable mould.

The earth used in the compost will require minute examination, in order that vermin may be exterminated, of which the most destructive, and the most likely to elude detection, is the yellow wire-worm.

When preparing the compost, let its several parts be well mixed, this should be performed, a few weeks before it is needed, and will require turning over several times. After the bed is filled up add more compost till it is raised three or four inches above the walk in front, and let the height of the back part be an additional six inches, so as to form a slope to the south, a layer of sea or river sand, one inch thick, should be spread over the sur-

face, and if a tasteful arrangement be desired, the place for each bulb should be marked thereon, the following order appears the most natural, and has decidedly the best effect. Let the rows be six in number, and eight inches apart, and allow the same distance between the bulbs, and four inches from the four outer rows to the limits of the bed. On the layer of sand in the places appropriated to them, let the bulbs stand in the following position throughout; red, blue, white, red, &c. commencing with a red in the first row, and in the second with a white, which place under a supposed point equi-distant from the red and blue above it; the next root will consequently be a red, and under the point between the blue and the white; in the third row begin with a red as in the first, and let it be directly under the red, in that row the blue following it, will be beneath the white and red of the second row; the fourth row will commence with a white as the second, and be directly under it; the red in the next place will be under the blue and white of the third row, &c. This mode allows the greatest possible diversity, and each bulb except the outer ones will be in the centre of a hexagon. In this arrangement yellow Hyacinths may be considered as white. Then cover them with a mixture of fresh earth and sand three or four inches deep, the latter depth is the proper one for the earlier roots, as it will retard their progress, so as to bloom with the later ones, an attention to this is requisite to ensure all blooming together. When covered the bed will be completed, and if boarded on the sides, will add much to the neatness of it, or if preferred, brick-work may be substituted, and hoops placed over the beds, will be useful, as mats can be thrown over the beds, during severe frosts or heavy rains, but for slight frosts, as the Hyacinth is hardy, no covering is necessary, and rain when not violent, is beneficial; the autumnal rains are, except in very dry seasons, sufficiently copious to obviate the necessity of artificial watering.

A few bulbs or reserves should be planted in pots at the proper time, and plunged in order to supply deficiencies that may occur; for some bulbs whose appearance indicate no symptoms of decay, are rotten at heart.

As all the directions to be observed in planting has been enumerated, it is unnecessary to add more now; I shall, however, in the next, or in the January Number, resume the subject, and a few words on blooming Hyacinths in pots, shall close this article.

If it be intended to have the pots in the drawing room, it need only be observed, that an attention to watering them as often as is necessary to retain the moisture, and their preservation from severe frosts, is all that is required; but if for growing out of doors, it will be proper to plunge them, and this may be done in the ordinary way, by placing the roots three or four inches asunder, then filling up the interval between, and afterwards covering them from six inches to a foot until the return of spring, but the greatest care must be previously taken to examine the earth otherwise though but a single wire worm, or other noxious vermin remains, the roots are in jeopardy. Or another and much safer method may be adopted, instead of earth, let cinder ashes be substituted in its stead, they can be purchased of the sweeps for 3d. per bushel: place the pots on layers of these six inches thick, fill up the space between, and cover them as mentioned above; by this means no insect can approach the pot, so that if the compost in which the bulbs are planted be free from them, no injury need be apprehended; they will now be safely lodged in their winter quarters, and I shall not omit to refer to them in my next communication.

In the above remarks I have endeavoured to be explicit, and I hope the prolixity of them will not be objectionable. As also in my paper of blooming Hyacinths in glasses in the last Number of the Floricultural Cabinet, no direction is given that has not been subjected to the test of practice, as no doubt yourself and many of your readers can avouch.

H. L.

ARTICLE IV.

A LIST OF TULIPS SUITED TO GROW FOR SHOWING AT FLORAL EXHIBITIONS.

BY MR. JOHN SLATER, BROUGHTON, NEAR MANCHESTER.

HAVING been applied to by several of your readers for a list of Tulips calculated for an exhibition, I send you a catalogue of those grown here for that purpose.

JOHN SLATER,

N. B. Those tied together by a brace is considered the same.

Roses.

Dolittle, or
Michael de Lise }
Blanca or }
Rose Blanca }
Claudianus
Compte de Vergennes
Hero of the Nile
La Vandikken
Lady Crewe
Ponceau Brilliant }
Moore's Rose, or }
Cerise Royal }
Pretiosa or }
Thunderbolt }
Queen Boadicea or }
Duchess of Newcastle }
Roi de Cerise
Rose Quarto
.... Unique
Vesta
Triomphe Royale or }
Heroine }
Thalestris
Turner's Lord Hill
Vulcan or }
Crassimi }
Wallworth

Bizarres

Albion
Black Prince
Captain White
San Joe or }
Abercromby. }
Catafalque (Old Dutch)
..... superieure
..... surpasse
Cato
Charbonnier Noix
Charles X.
Coggeshall Hero
Crown Prince
Duc de Savoy
Earl St. Vincent
Firebrand

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George IV. (Page's)

Gould Beurs
Gould Mont
Leopoldina
La Cantique
Lustre de Beauté
Liberty
Polyphemus
Platoff
Surpasse la Cantique
Sir Sidney Smith }
Magnum Bonum }
or Thebisonde }
Trafalgar

Byblomens.

Alexander Magnus
Ambassador van Holland
Archduke Charles
Archelaus
Atlas or
Bacchus No 1. }
Black Baquet
Bienfait
Buckley's Smiling Beauty
..... Lancashire Hero
..... Fair Flora
Cleopatra
David or
David Pourpre }
Duchess of Tuscany
Grotius,
Gadsby's Magnificent.
Imperatrix Florum
Imperatrice de Morocq
..... de Romaine
Incomparable, (Rowbottoms)
..... Premier Noble
..... Surpassant
Louis XVI.
Maitre Partout
Prince Wirtenberg
Princess Charlotte
Queen Charlotte
Reine de Sheba
Sable Rex
DD

Sang du Bœut
Triumph de Lisle
Violet Alexander
..... a son Noir
..... Extra
..... Wallers
Washington

Selfs.

Roi Min d'or
White Flag

Rose Breeders.

Duchess of Newcastle
Lady Crewe

Glaphys

Bizarre Breeders.

Old Dutch Catafalque
Cato
Charbonnier Noir
Polyphemus

Byblomen.

Lancashire Hero
Smiling Beauty
Violet Alexander
Amy Robsart

New varieties exhibited this year.—Sir Thomas, Bizarre, won four premier Prizes this year; Lady of the Lake, Byblomen, like Roi de Siam; Sancta Sophia, Byblomen, like violet Alexander; Hannibal, Flamed Bizarre; Euclid, Feathered Bizarre, &c. &c. &c.

ARTICLE V.

REMARKS ON THE ROSE.

(Continued from page 232.)

MANY persons eat this fruit with pleasure when mellowed by the frost. It was formerly much used as a conserve, the seeds being taken out, and the pulp beaten with sugar. Gerrard says, "The fruit when it is ripe, maketh most pleasant meates, and banquetting dishes, as tartes, and such-like."

The fruit of the rose is nothing more than fleshy urceolate calyx, from whence the stigma springs, and it afterwards becomes the repository of the true fruit or seed, after the manner of the fig, excepting that the seeds of the hip, are divided by silky bristles, or prickly fibres, which cause great irritation on the primæ viæ when eaten.

It is the strong shoots of this species of rose-tree that the largest kind of garden roses are now grafted on; and by this means

we see, instead of bushes, tall stems growing out a head, in imitation of the forest trees. Where it is desirable to raise them to a height above dwarf bushes, it has a good effect; as also when planted in flower gardens, as pinks and other flowers may cover the ground with blossoms, whilst the rose form a kind of parasol over them; but in general we prefer a rose bush to a tree of roses, and are better pleased to look into a rose than up to it. De-lille notices this modern practice with that of keeping apple trees in a dwarf state.

“Of old the rose on lowly bramble sprung,
While high in air the ruddy apple hung!
Now, strange reverse! the rose-tree fills the skies,
While scarce from earth our apple trees arise.”

The white field rose, *Rosa arvensis*, is commonly called the White Dog-rose. This is much less fragrant than the last mentioned. As the fruit of this kind ripens, it changes from an oblong into a globose shape. The style of the flower, as soon as they have passed through the neck of the calyx, are compacted into a cylinder, resembling a single style, terminated by a knob composed of the stigmas, which distinguish it from the other species. It is said to be the most common rose in the west of Yorkshire, and is generally mentioned as the rebel rose.

A young English lady appearing in company in Paris, with a sprig of orange flowers in her bosom, was thus complimented by a Frenchman for the clearness of her complexion, at the same time, that he gave her a delicate hint that her bosom was more exposed than modesty allowed.

“Lovely Tory, why the jest,
Of wearing orange in thy breast?
Since this breast so clearly shows
The whiteness of the rebel rose.”

That both the white and the red rose were formerly considered rebellious emblems, the blood of our ancestors has fully proved.

“And here I prophecy—This brawl to day
Grown to this faction, in the Temple garden,
Shall send, between the red rose and the white,
A thousand souls to death and deadly night.”

SHAKESPEARE.

The idea of taking a white or a red rose, as an ensign for the parties who caused such dreadful devastation in this country for many ages, seems to have originated in the Temple Gardens of London, if we may trust to poetical history, that says in King Henry the Sixth,

“ Within the Temple hall we were too loud ;
The garden here is more convenient

From the year 1454, until the families were united in 1485, civil war laid waste the fairest portion of our country, and the sons of one father often engaged in battle, and sometimes the father against the son, under the different banners of the red and white rose.

In times of terror, fear and superstition are generally seen hand in hand. During these ages of domestic wars, we are told they discovered a rose tree at Longleat, which bore white flowers on one side and red ones on the other side, prognosticating both the division and uniting of the two families.

It was pretended upon the marriage of Henry the Seventh, to Elizabeth, the daughter of Edward the Fourth, that the rose first appeared with mixed petals of red and white, which is still acknowledged throughout Europe as the emblem of that happy union, by the name of York, and Lancaster Rose.”

Gerrard tells us that the double white rose formerly grew wild in the hedges of Lancashire, in great abundance as briers. This we presume was the white dog rose which had become double by some accidental circumstance, and that the variety propagated itself by suckers and layers, in a soil that was suitable for that purpose.

“ The sweetest rose where all are roses.”

The most delightful rose of which the garden boasts is the Provence, or provins rose, *Rosa provincialis*, and which has been claimed by the inhabitants of the south of France as a native of Provence; whilst the Dutch, says Gerrard, consider themselves entitled to this flower, and say, as it first came out of Holland, it ought to have been named the Holland Rose, and not Provence rose; but it appears very evidently from Pliny, that neither of these countries can justly hold it as a native plant. He calls it a Greek rose, and thus describes it in the fourth chapter of his twenty-first book, The rose named *Græcula*, has its petals

or flower leaves folded or lapped over each other so closely, that they will not open of themselves, unless they be forced with the fingers, and therefore look as if they were always in the bud, but when they are expanded, they are the largest of all the roses," This account correctly corresponds with the nature of the Provence rose, which is often called the Cabbage rose, from the manner in which the petals cabbage or fold over each other. As this rose is so nearly allied to the damask rose, it is probable the Greeks first obtained it from the vicinity of Damascus, and that the trivial change is owing to soil and cultivation.

(To be continued.)

ON THE GERANIUM HOUSE.

BY AN AMATEUR.

HAVING perused the following article with great satisfaction and pleasure, I consider it well worthy the attention of those who delight in the culture of that most beautiful flower the Geranium, I have transcribed it and sent it to you, which if you think worthy of a place in your valuable Publication, it will be, no doubt, both instructive and entertaining to many of your readers.

"The late Mr. Colville was amongst the first who saw the propriety and adopted the practice of growing the *Geraniaceæ* in a house by themselves. Since that time many have followed the example, and, judging from the fine specimens brought to the public exhibitions within these last three years, we are led to think that in no department of plant culture has such a rapid improvement been made as in that of Pelargoniums. To grow these numerous and splendid plants to perfection, requires a separate house for themselves, and whoever have seen those of Catleugh, of Chelsea, and Gaines, of Battersea, as public cultivators, and those of Sir John Broughton, or R. Jenkinson, Esq., will admit, we think, that they richly deserve a house for themselves. The *Geraniaceæ* have the following attractions, namely, they are easily kept, propagated, and flowered; they continue nearly the whole season in bloom; present almost infinite variety of colour and form, and are much better adapted for standing in rooms uninjured than most other plants. New varieties are readily obtained by cross impregnation, and these are readily in-

creased by cuttings, the simplest of all modes of re-production. If the majority of Pelargoniums are deficient in fragrance, nature has made up for that apparent deficiency, by the splendour of the blossoms; and, as it were, to equalise her gifts, certain kinds whose flowers are less showy, nay, even of a dingy hue, have a delightful perfume; some during the evening and night, and others when rubbed against, or when the wind lashes the leaves and branches against each other.

Few genera of plants exhibit more fully the industry of the cultivator, or demonstrate more clearly the control he exercises in producing varieties, than in the case of the Geranium or Pelargonium. Hundreds of varieties, which are to be met with in the collections of florists, are the fruits of his ingenuity; for, however strange it may appear, it is a positive fact that not above a dozen true species are to be recognised amongst them. It is, therefore, now only in the strictly botanical collections that true species are to be seen, they having given place to sub-species originated by hybridizing. With the exception of three or four species, the whole of this splendid tribe, amounting to nearly three hundred recorded species, and above five hundred sub-varieties, have been either introduced or originated in this country within the last fifty or sixty years.

Structures calculated for the Growth of Geraniaceæ.

“An ordinary greenhouse, not too lofty, and capable of being completely ventilated, and situated in full exposure to the meridian sun, will answer very well for the culture of this tribe. As the plants of this family require all the light, air, and sun, that our climate affords, it is necessary that the Geranium house should front the south, and be perfectly free from the shade of trees or buildings.

A very complete Geranium house may be upon the same scale of size, and constructed as that recommended for a Heathery, and may be attached to it, thus forming a pretty range, which in consequence of the plants being for the most parts natives of the same country, will associate well together; or the Geranium house may be erected against the Camellia house, providing that the latter be detached from the dwelling house, and occupying the north aspect of a separate wall. One remark we shall here make respecting the erection of plant houses in which small plants are to be cultivated.

Heaths, Geraniums, and most fine flowering greenhouse plants, should never be allowed to become old or large, as such plants, for the most part, do not flower so fine or look so well, as young plants do. Houses of this description should be rather long and narrow, because in that case the plants are more within reach, and are much better seen than when they are placed too far from the eye, which they often are when the house is either too lofty or too wide.

This would be a very complete Geranium house, and would be an object both light and elegant in the flower garden if placed detached from other buildings, or it would be equally well placed if more desirable, when attached to the dwelling by one of its ends. The height of such a house should not exceed seven feet over the foot paths, which will be sufficient to admit of a free passage; for the lower such houses are, the better, so that there be plenty of head room. The length of all plant houses must be determined by local circumstances; but so far as heating is concerned, and we think it proper to mention that here, one fire, whether employed to heat a boiler of water or warm the smoke flues, will heat a house of this width and height, above one hundred feet in length. A span-roofed house we prefer for Geraniums, as the plants enjoy plenty of air, light, and solar influence, and are seen to great advantage. A span-roofed house similar to the above statement, if fifty feet in length, will contain nearly as many plants as one in the lean-to fashion of one hundred feet in length; and in regard to expense of erection will be much less.

In speaking of shading the most delicate heaths during the heat of summer, we would also recommend the same provision to be used for the Geranium house, while the plants are in bloom. The expense will be amply remunerated by the greater length of time the plants will remain in bloom, and the richness of the colours of the flowers, which, if exposed to the full solar influence, would be very much injured. The upright lights over the parapet walls should be made to take out, as during the great part of the season they will be better removed, in order that a free circulation of air be permitted to pass through the house; but they should be replaced in stormy, windy weather. This mode of ventilation will render the opening the roof seldom necessary, guarding also against sudden showers of rain, which would be very injurious to the finest flowers.

Propagation and treatment while young.

“Geraniums or, more properly, Pelargoniums, are very readily propagated by cuttings and seed, and the tuberous-rooted sorts by cuttings or pieces of the roots. To have a succession of flowering plants all the year, some attention should be paid to the period of flowering of different sorts, which a reference to London’s Hortus Britannicus, and also the period at which the cuttings are planted, will sufficiently indicate. The following routine we have been satisfied with following, viz., in August, at which period the earlier flowering kinds will have done flowering, the plants are cut down to within one or two eyes, if we may so speak; but which will be more intelligible if we say to within from an inch to half an inch of where the shoot sprung from. The shoots so taken off, are made into cuttings about six inches long, and cut close off below a joint, but the leaves should remain on, and not reduced in size, as is too often done. Each cutting is then planted in a pot of the size called large thumbs, and which are about two inches in diameter. They are then well watered, and plunged into a moderate hot-bed, kept close and well shaded, till they have begun to take root, when air is gradually admitted to them. The only care necessary during this part of their culture is to pick off all decayed leaves, to prevent the cuttings from rotting, to keep the temperature steady, but not too high, and above all to keep them shaded. In four or five weeks cuttings so treated will require to be shifted into larger pots of the size known as thirty-twos’, after which the plants may be placed in a cool, airy pit, or frame, but kept close to the glass to prevent their being drawn up weak and tall; or they may at once be arranged in the Geranium house. Plants so treated will flower in March if they are removed to the Geranium house before the setting in of severe frost.

“In September, another set of cuttings should be put in, of the sorts that go out of flower at that period; these will flower in May, and a third set of cuttings should be put in, in January, which will flower from May to July; and a fourth and last set in March, which will produce plants that, if kept cool during summer, and brought into the Geranium house in September, will bloom during October, November, and part of December.

(To be continued.)

R E V I E W .

The Rose Fancier's Manual.—By Mrs. Gore. 12mo, pp.434
London, 1838.

(Continued from page 235.)

The first article in the body of this work is on the geography of Roses. Certain authors assign the provinces of Georgia and Circassia as the native places of the elder Roses; and others assert that the Rose only flourishes between latitudes 20 and 70 degrees; but the Rose of Montezuma, which grows in latitude 19 degrees, and the Abyssinian rose, which inhabits latitude 10 degrees, overturn this theory. Various countries possess species or varieties which are peculiar to them.

"Of these, some extend their growth to [over] a province, some to a smaller space of territory; some even restrict themselves to a single mountain or solitary rock. The *Rosa Polliniana* is peculiar to Mount Baldo, in Italy; the *Rosa Lyonii*, to Tennessee, in North America; while the *Rosa arvensis*, or field rose, is to be found in all countries of Europe; and the *Rosa canina*, or dog rose, in Europe, as well as a considerable portion of Asia and America.

"The roses of North America, are:—*R. blanda*, found on the glaciers of the most northerly provinces; its bright pink corolla unfolding itself immediately on the melting of the snows. This shrub is found only on the frozen deserts between 70° and 75° N. L. *R. hudsonensis* is found on the shores of the Hudson, within the polar circle, where it produces clusters of pale double flowers. *R. fraxinifolia*, which has small, red, heart-shaped petals, is found in Newfoundland and Labrador, along with *R. blanda*. *R. nitida*, which has deep red flowers, abounds on the northern coasts, and is used by the Esquimaux for decorating their hair, and their seal-skin dresses. *R. lucida* is found in the marshes of Carolina. *R. Woodsii* is found on the banks of the Missouri; and *R. carolina* on the adjoining marshes. *R. evratina* is found on the marshy banks of the rivulets of Virginia, and is extremely difficult of culture in gardens. *R. diffusa* is found in the forests and stony districts of the central and southern states of the Union. *R. parviflora* is a diminutive shrub, found on the rising grounds of Pennsylvania; and *R. stricta*, and *R. rubifolia* are found on the outskirts of the Pennsylvanian forests. *R. setigera* is found in South Carolina; and *R. lævigata*, a climbing species, inhabits the woods of Georgia, and is used by the Creoles to adorn their hair.

"The rose of Mexico is *R. Montezumæ*, a sweet scented thornless species, which abounds on the highest parts of Cerro Ventoso, near San Pedro in Mexico, where it was discovered by Messrs. Humboldt and Bonpland. The town of San Pedro is in latitude 19°; which proves that roses are found under latitude 20°, contrary to the assertion of some authors. The total number of American species of roses hitherto described is only fourteen, all of which, with the exception of *R. Montezumæ* and *R. stricta*, might be classed under the same section as the European *Rosa cinnamomea*. Those of France are twenty-four, and of Britain nearly that number, according to some botanists, and not more than six, according to others.

"Asia has to boast a greater variety of species of the rose than the rest of the earth united; thirty nine that admit of accurate definition having been

already established. Of these, the vast empire of China, where both agriculture and horticulture are arts in high estimation, has a claim to fifteen.

"First, the *Rosa semperflorens*, the leaves of which have sometimes three leaflets, sometimes only one; whose flowers are scentless, of a pale dull pink producing a pleasing effect when half blown. The *Rosa sinensis*, confounded by some botanists with the preceding, but blowing at all seasons, of a far more brilliant colour. The *Rosa Laurenceana* is a beautiful little shrub, from 3in. to 5in. in height, but, unlike most dwarfs, whether of the vegetable or animal creation, perfect in symmetry and proportion. The *R. multiflora* attains, on the contrary, a growth of 15 or 16 feet; having small, double, pale, pink blossoms, united on a single stem, so as to form beautiful bouquets on the tree. The *R. Banksiæ* extends its flexile branches over rocks and hillocks, bearing a profusion of small, very double, yellowish white flowers, remarkable for their violet-scented fragrance.

"The *R. microphylla* is a favourite garden shrub of the Chinese, under the name of Haitong-hong, having small, double, pale pink flowers, and a foliage of peculiar delicacy.

"Cochin-China, situated between the 10th and 20th degrees of latitude, possesses all the roses of China, and, in addition, several indigenous species; among others, the *R. alba*, found also in Piedmont, in France, and various other parts of Europe; and the *R. spinocissima*, bearing flesh colored flowers. Japan, between the 30th and 40th degrees of latitude, has all the roses of China, besides a peculiar species, the *R. rugosa*, the solitary flower of which bears some resemblance to the Kamtschatken rose.

"The southern provinces of Asia, comprehending those of India, offer many curious species to our own observation. The north of Hindostan possesses six; two of which are also found in China, and two in Nepal. The *R. Lyellii*, which bears transplantation to our own climate, and is remarkable for the profusion of its milk white flowers during the greater part of the summer, and the *E. Brunonii*, whose petals are of the same snowy whiteness, rank high among the roses of India. In approaching the southern provinces, we find the *R. macrophylla*, somewhat resembling the alpine roses of Europe; the flowers whitish, but streaked with pink towards the extremity of the petals; the *R. sericea*, of which the surface of the leaflets has a satin texture, and the flowers are solitary and drooping.

"The parched shores of the Gulf of Bengal are covered during the spring, with a beautiful white rose, found also in China and Nepal. The flowers of the *R. involucreta* are white, solitary surrounded with a collar of three or four leaves, out of which they seem to emerge; while in vast thickets of the beautiful *R. semperflorens* (a native also of China) the tigers of Bengal and crocodiles of the Ganges are known to lie in wait for their prey.

"In the gardens of the Kandahar, Samarcand, and Ispahan, the *R. arborea* is cultivated in great profusion by the Persians. This shrub which attains a considerable size, is covered during the spring with an abundance of white and scented blossoms. The *R. berberifolia* is also common in these provinces. This shrub differing so completely from every other species of rose that botanists experience some hesitation in classing it among the number [it is now *Lowea berberifolia*, see *Arb. Brit.*, ii. p. 812], has simple single leaves, and yellow star-shaped flowers, variegated, like a cistus, at the base with spots of deep crimson. The *R. damascena*, transported to Europe from Damascus by the Crusaders, affording to our gardens an infinite number of beautiful varieties, adorns the sandy deserts of Syria with its sweet and brightly tinted flowers. At the extremity of Asia, towards Constantinople, the *R. sulphurea* displays its very double flowers of a brilliant yellow.

"The north-west of Asia, which has been signalised as the father land of the rose tree, introduces to our admiration the *R. centifolia*, the most esteemed of all, and celebrated by poets of every age and country, with which the fair Georgians and Circassians adorn their persons.

(TO BE CONTINUED.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

1. **CORYCIUM OROBANCHOIDES.** Synonym **SATYRIUM OROBANCHOIDES.** *Broomrape Corycium* (Bot. Reg. 45.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

It is a terrestrial Orchideæ, and a native of the sandy plains of the Cape of Good Hope. It is very probable that the plant which has recently bloomed in the collection of John Rogers, Jun. Esq., Streatham, Surrey, is the first that bloomed in Europe.

The flowers are small, produced in a spike, which rises about six inches high. The flower is a pale yellow having the end of the petal a reddish-purple. *Corycium*, from *korukos*, a little bag, attending to the form of the flower.

2. **CYRTOCHILUM MACULATUM.** *Spotted flowered.* Bot. Reg. 34.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native near to Yera Cruz. It has bloomed in the London Horticultural Society's Garden. The scape of flowers rises above a foot high, bearing from eight to ten blossoms, each of which is about an inch and a quarter across. The petals are of a yellowish green, beautifully spotted with brownish purple. The labellum is white at the base, but yellow towards the termination, having the edge tinged with carmine. The entire plant has very much the appearance of an *Oncidium*.

3. **LOBELIA BRIDGESSII,** *Mr. Bridge's* (Bot. Mag. 3671.)

LOBELIACEÆ. PENTANDRIA MONOGYNIA.

A native of Chili, where it was discovered by Mr. Rodges. Seeds of it were received by W. T. Aiton, Esq. and the plant bloomed in the greenhouse at Kew, in 1837. The plant grows to about four feet high, having a raceme of its beautiful blossoms, each of which is near two inches long. It is a very desirous species, and doubtless will be a very ornamental plant for the greenhouse or conservatory.

4. **MAXILARIA ROLLISINIA.** *Messrs. Rollison's Maxilaria.* (Bot. Reg. 40.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of Brazil, imported from thence by Messrs. Rollison's of Tooting. The plant is very dwarf. The flower, stem extends about two inches long, terminating with a flower about an inch and an half across. Petals of a pale yellow. Labellum, yellow, with bland coloured spots.

5. CRUCIANELLA STYLOSA. *Long-styled.* (Bot. Reg. 55.

CRUCIANELLA, PENTANDRIA MONOGYNIA.

This pretty flowering herbaceous plant was discovered by the Russians in Persia, growing upon rocks among the mountains. The flower stems rise about half a yard high, each terminates with a head of bright pink flowers, which are very ornamental. The plant seems well adapted for growing *en masse*, a bed of it would make a beautiful show. It blooms from June to September,

6. EPIDENDRUM SCHOMBURGKII. *Mr. Scomburgk's* [(Bot. Reg. 53.

ORCHACEÆ. GYNANDRIA MONOGYNIA.

This beautiful flowering species was discovered by Mr. Scomburgk in the interior of British Guayana. The flowers are produced in panicles of ten or twelve on each, they are of a fine brilliant vermilion-red colour, similar to the *Lychnis Bungeana*. Each flower is about two inches across. The plant has bloomed in the collection of Messrs. Loddiges's of Hackney.

7. DAPHNE AUSTRALIS. *Southern Daphne.* (Bot. Reg. 56.

THYMALACEÆ. OCTANDRIA MONOGYNIA.

A native of Italy near Naples. It has much the appearance of *Daphne collina*, but has more hairy foliage. The flowers are of a rosy purple colour, highly transparent. It seems to be perfectly hardy in this country, and well deserves a place in the shrubbery,

8. HELLEBORUS LIVIUS, *Corsican Hellebore.* Bot. Reg. 54.

RANUNCULACEÆ. POLANDRIA, POLYGYNIA.

A native of Corsica. It is a hardy herbaceous plant, producing erect racemes of greenish yellow flowers, each flower being about two inches across.

9. IBOMEA PLATENSIS. *The Plata Ipomea.* (Bot. Mag. 3685.

CONVOLVULACEÆ. PENTANDRIA, MONOGYNIA.

A native of the banks of the Plata River. As is so common in the genus, it is long and climbing, bearing umbels of from two to four flowers in each. The flower is of a delicate lilac colour, having a darker eye. It is a pretty hot-house climber, blooming for several months successively.

10. SOLANUM FRAGRANS. *Transparent North American Nightshade.* (Bot. Mag. 3684.

SOLANÆ. PENTANDRIA MONOGYNIA.

A native of south Brazil, from whence Mr. Tweedie sent it to the Glasgow Botanic Garden, where it has recently bloomed. It grew rapidly in a pot in the stove for the first two years, but showed no disposition to bloom. It was then planted in the border in the great stove, where it soon reached the height of twelve feet, and produced numerous racemes of its changeable coloured flowers, having a powerful fragrance. The raceme is about five inches long, having ten or twelve flowers on each. The corolla at first is of a bluish-purple, changing to a brown, and ultimately to a greenish yellow, with a dark streak on each petal. The flower is about an inch across.

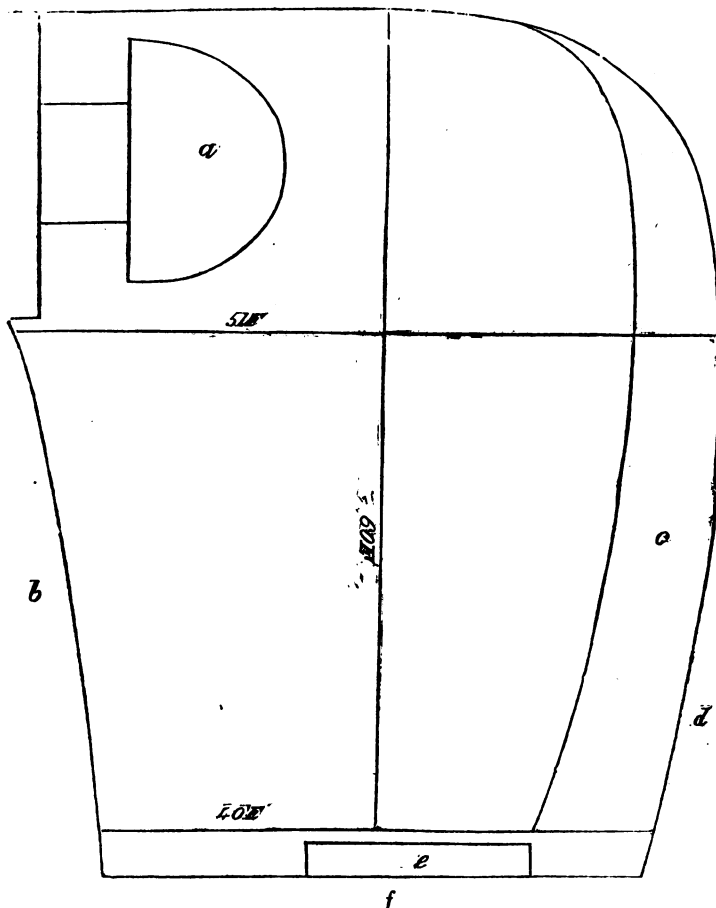
PART III.
MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A PLAN FOR A FLOWER GARDEN, WITH LIST OF PLANTS SUITABLE. — A Regular Subscriber to the Floricultural Cabinet would be much obliged if some correspondent would, as early as convenient, give among the plans of Flower Gardens, one for laying out ground of the annexed form and dimensions; also a suitable list of plants, say Annuals, Biennials and Perennials, herbaceous and greenhouse plants for summer ornament would be an additional favour.

Aug. 27th, 1838.

A REGULAR SUBSCRIBER.



a, A small Greenhouse. *b*, High wall to be covered with clay. *c*, Shrubs concealing the garden from the drive to the house. *d*, Ornamental wire fence, enclosing the garden. *e*, Large window. *f*, End of the House.

ON A LIST OF MICHAELMAS ASTERS, AND SOLIDAGOS.—Few plants are more ornamental for adorning the Flower Garden and Shrubbery in Autumn, than the Michaelmas Aster, and Solidagos. The present period of the year being the blooming season, affords an opportunity to ascertain which are the most showy and ornamental sorts. If some reader of the Cabinet, having the opportunity, would furnish such a list, it would very much oblige

Sep. 26th, 1838.

A CORRESPONDENT.

REMARKS.

NEW OR RARE PLANTS.

ARTHROSTEMMA VERSICOLOR. Changeable flowered. (Synonym, *Rhexia versicolor*).—A native of Brazil, discovered by Mr. McRae. It has flowered in the stove at the Glasgow Botanic Garden. The plant grows near a foot high, and terminates in large spreading panicles of flowers, which are of a pale-rose colour, and being produced numerously, have a pretty appearance. Each flower is about three quarters of an inch across.

PENTSTEMON ARGUTUM.—Another fine species of this admired genus. We recently saw it in bloom at Mr. Henderson's Nursery, Edgware Road, London. The flower stem rises about five feet high, having numerous lateral shoots, its whole length, producing a profusion of flowers, of a rosy purple colour. Each blossom is about an inch and a half long. It deserves a place in every flower garden.

At Lowe, and Co.'s Nursery, Clapton, we saw the following.

GLOXINIA MAXIMA. The flowers are of an extraordinary size, white with a deep purple along the lower part of the corolla inside, producing a fine effect. It is an hybrid production recently raised, we understood, in the neighbourhood of London by a gentleman's gardener.

FUCHSIA CYLINDRICA. The appearance of this new species is much like *F. Wormaldi*, but its flowers are very different. They are produced on long foot stalks, and are of a light red colour, having the end tipped with green. Each flower is about three quarters of an inch long. It does not produce much show, but is in other respects interesting.

SALVIA.—(New species.) Mr. Lowe, received a quantity of Mexican seeds sent from Mr. Tweedie, amongst which is a beautiful species of *Salvia*, which is now in flower. The plant grows four feet high, and the shoots terminate, each with a spike of flowers, of a fine blue, marked inside with white. They resemble the *S. angustifolia*, but are larger and of a deeper blue. The plant appears to be a very free grower, sending up numerous shoots from the roots. It appears to be very suitable for the open border in summer, and would produce a fine effect.

SALVIA PATENS.—Also received from Mr. Tweedie, and is a most splendid species. The plant was growing in the open border, about two feet high, a few blossoms were only left when we saw it, but it appeared to have had flowers on the spike, for a foot or upwards. Each flower is about two inches long, of a most intense blue, producing a fine effect. A bed of it in contrast (or even a single plant) with the fine scarlet and crimson kinds, would produce a fine effect. This new and fine species has not, like the blue flowered *S. Africanus* large foliage and few flowers in proportion, but appears to be the reverse of it. Plants will be ready for sale next spring, and ought to be in every conservatory, greenhouse, and flower garden.

COMBRETUM PURPUREUM. A correspondent in the *Gardeners Gazette*, states, that there is a plant of *Combretum purpureum* growing in a stove in the Mastyn Hall Gardens, which covers three-hundred and eight superficial feet trained against a wall, and which had, in July last, near three-hundred racemes of its fine graceful and showy flowers. The plant is growing in the corner of the pine pit, which had been partitioned off, and filled with fresh

loamy soil. The plant must have had a most splendid effect. It is further stated that the best mode of propagation is, to bring some strong roots into pots, and then to graft scions upon them. Cuttings will succeed if, when put off, the pot be placed in a greenhouse until the base of the cuttings become caloused, (a discernable swelling), then being taken into a higher temperature, the stove roots are speedily induced to push forth.

CORREA MILNERII.—Mr. Groom has a good stock of this new and fine flowering kind, but in consequence of propagating so easily, the price is two guineas a plant. The blossoms are large, and of a fine rosy red colour. It is a very desirable plant for the greenhouse or conservatory.

IPOMEA SELLOUII.—We saw a fine plant of this new species in bloom at Mr. Groom's. The flower is of a fine rosy-purple colour, having a dark eyed tube, with five darker plaits down the corolla, and each blossom is at least three inches across. Being produced in clusters and very numerous, renders it a most ornamental plant, for the plant stove, warm greenhouse, or conservatory. The plant has a very fine foliage, and is a rapid grower.

GOLPHEMIA AUREA. We saw a plant of it in bloom with Mr. Groom, in April, in the greenhouse, and the same plant we saw removed into the plant stove, in fine bloom in October, so that it had been blooming for more than six months. It is a neat growing plant, about four feet high, branching, and each branch terminating with a spike of golden coloured flowers, each blossom being about half an inch across.

CHORIZEMA CORDATA.—Plants of this very interesting and beautiful species have been in bloom in most of the public nursery establishments around London, most of the Summer. It is a neat growing plant, flowering profusely, and is a very conspicuous object in the collections. It ought to be grown in every greenhouse and conservatory. It is a very rapid grower and propagates readily when struck in sand and heat.

HIBBERTIA PEDUNCULATA.—An interesting plant growing in the greenhouse at Messrs. Loddiges's. It grows about a foot high, bushy, flowering most profusely for some months, and with its bright golden flowers, has a showy and pretty appearance. It may be procured very cheap, it merits a place in every collection.

EDITOR OF MONTHLY NOTES.

It is our purpose in future in each number of the Cabinet, to insert the substance of our monthly observations and remarks, upon every thing connected with floriculture that may come under our notice. In recently looking over the floral periodicals and gardening works, we noticed in the Gardeners Magazine a very interesting account of Bedford Lodge, Camden Hill, near London, the Suburban Villa of His Grace the Duke of Bedford. The particulars have been furnished by Mr. Caie, the excellent gardener there. There are six well executed wood engravings given, exhibiting views of the mansion, grounds, and flower garden. The cultivation of flowers, it appears, is a principal object there, and a very striking feature in the management of the flower garden, is to produce the most brilliant display of flowers during May, June and July, the period when His Grace most usually visits there. We have been informed by those visiting the place, that the display of flowers during those months, and even up to October, is such as to be quite dazzling. In order to have the finest flowering annuals in full bloom as early in the season as May and June. Mr. Caie sows the seed as early as January, viz., such as *Nemophilla insignis*, *Collinnia grandiflora*, *Gilia tricolor*, *Gilia achillesefolia*, *Collomia coccinea*, *Platystemon californicus*, *Eschscholtzia crocea*, &c. When the display of these are declining, a second exhibition is produced by perennial plants, which are grown permanently in their compartments, such as *Oenothera macrocarpa* which succeeds *Nemophilla insignis*.

REFERENCE TO THE EMBELLISHMENTS.

We have recently had the pleasure of seeing a number of drawings of Hybrid Gladioluses exhibiting by J. Plant, Cheadle, Staffordshire; we were much struck with their novelty and splendour, and Mr. P. having kindly allowed us the use of the drawings, thus affording us the pleasure of giving our readers four of those we judged most beautiful.

Mr. P. informed us that he had a great quantity of other seedlings which he expects to bloom next summer, and has also a lot of hybrids from quite a different origin, some of which have bloomed, and have a delightful and powerful fragrance.

FLORICULTURAL CALENDAR FOR NOVEMBER.

All greenhouse plants should now be housed without delay, and air admitted, except when it is frosty. The plants should not be watered in the evening, but in the early part of the day, so that the damps may be dried up before the house is closed, as they are during the night prejudicial to the plants. The soil in the pots should frequently be loosened at the surface, to prevent its forming a mossy or very compact state.

The plants of the Cactus that have been kept in the open air during the summer, may be brought to bloom successively, by taking such as are desired to bloom immediately into the heat of a forcing pine house. Other plants to bloom afterwards, should be kept in a greenhouse protected from the frost.

The plants of the Calceolaria that has been grown in the open borders during the summer months, should now be taken up and potted, afterwards kept in a cool frame, or cool part of the greenhouse, being careful not to give too much water, just sufficient to keep the soil moist will only be necessary.

The Chinese Primroses that has been grown in the open borders, will require to be taken up.

The plants of some of the Chrysanthemums that are grown in pots, and taken into the greenhouse, will be found to have pushed a number of suckers. If the offsets are wanted for the increase of the kind, it is advisable to pinch off the tops, so as to prevent their exhausting the plant to the weakening of the flower. If the offsets are not wanted, it is best to pull up the suckers entire. Attention will be required to watering, as the roots absorb much if given. If the plant is allowed to wither, it checks the flowers, whether in bud or expanded. And so much do we admire this handsome genus of flowers, that we are fully persuaded their beautiful blossoms, exhibited in form and colour, will most amply repay for any labour that may be bestowed on the plants.

The Dahia seed, if not cut off by frost, will now be perfected. They are best retained in the heads as grown, spread singly, where they will not be liable to mould, and kept in a dry, but not too hot a situation; being thus kept in the chaff, the small seeds will not shrivel, but be kept plump. The roots will now require taking up, if not done last month.

Dutch roots may in this month be successfully planted.

Fuchsias and greenhouse plants intended to be inured to the open air, will require to have protection at the roots, &c.

Tabers of Commellinas, and bulbs of Tigridias, should be taken up and preserved dry through winter.

Newly planted shrubs, in exposed situations should be secured to stakes.

Herbaceous border plants may still be divided and replanted.

1873

Monia magnifica

THE
FLORICULTURAL CABINET,

DECEMBER, 1st, 1838.

PART I,
ORIGINAL COMMUNICATIONS.

ARTICLE I.
ON CHINESE GARDENS.

BY SIR W. C.

AMONGST the Chinese, gardening is held in much higher esteem, than it is held in Europe; they rank a perfect work in that art, with the great productions of the human understanding; and say that its efficacy in moving the passions, yields to that of few other arts whatever. Their gardeners are not only botanists, but also painters and philosophers; having a thorough knowledge of the human mind, and of the arts by which its strongest feelings are excited. It is not in China as in Italy and France, where every petty architect is a gardener; neither is it as in another famous country, where peasants emerge from the melon grounds to take the periwig, and turn professors; as Sganarelle, the faggot maker, quitted his hatchet and commenced physician. In China gardening is a distinct profession, requiring an extensive study, to the perfection of which few arrive. The gardeners there, far from being either ignorant or illiterate, are men of high abilities, who join to good natural parts most ornaments that study, travelling, and long experience can supply them with; it is in consideration of these accomplishments only that they are permitted to exercise their profession; for which the Chinese taste of or-

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namental gardening is an object of legislative attention; it being supposed to have an influence upon the general culture, and consequently upon the beauty of the whole country. They observe, that mistakes committed in this art, are too important to be tolerated; being much exposed to view, and in a great measure irreparable: as it often requires the space of a century to redress the blunders of an hour.

The Chinese gardeners take nature for their pattern, and their aim is to imitate all her beautiful irregularities. Their first consideration is the nature of the ground they have to work upon; whether it be flat or sloping, hilly or mountainous, small or of considerable extent; abounding with springs and rivers, or labouring under a scarcity of water; whether woody or bare, barren or rich; and whether the transitions be sudden, and the character grand, wild, or tremendous, or whether they be gradual, and the general bent, placid, gloomy or cheerful. To all which circumstances they carefully attend; choosing such dispositions as humour the ground, hide its defects, improve or set off its advantages, and can be executed with expedition at a moderate expence.

They are also attentive to the wealth or indigence of the patron by whom they are employed; to his age, his infirmities, temper, amusements, connections, business and manner of living: as likewise to the season of the year in which the beauty of the garden is likely to be most frequented by him; suiting themselves in their composition to his circumstances, and providing for his wants and recreations. Their skill consists in struggling with the defects and imperfections of nature, and with every other impediment; and in producing in spite of every obstacle, works that are uncommon, and perfect in their kind.

Though the Chinese artists have nature for their general model, yet are they not so attached to her as to exclude all appearance of art; on the contrary, they think it, on many occasions, necessary to make an ostentatious shew of their labour. Nature, say they, afford us but few materials to work with; plants, ground, and water, are her only productions; and though both the forms and arrangements of these may be varied to an incredible degree, yet have they but few striking varieties; the rest being of the nature of changes rung upon bells, which, though in reality different still produce the same uniform kind of jingling, the variation being too minute to be easily perceived.

Art must therefore supply the scantiness of nature; and not only be employed to produce variety, but also novelty and effect; for the simple arrangements of nature are met with in every common field, to a certain degree of perfection, and therefore are too familiar to excite any strong sensations in the mind of the beholder, or to produce any uncommon degree of pleasure.

It is indeed true, that novelty and variety may both be attained, by transplanting the peculiarities of one country into another, by introducing rocks, cataracts, impending woods, and other parts of romantic situations, in flat places; by employing much water where it is rare, and cultivated plains, amidst the rude irregularities of mountains; but even this source is easily exhausted, and can seldom be put in practice, without a very great expence.

The Chinese are no enemies to strait lines, because they are generally speaking, productive of grandeur, which often cannot be attained without them; nor have they any aversion to regular geometrical figures, which they say are beautiful in themselves, and well suited to small compositions, where the luxuriant irregularities of nature would fill up and embarrass the parts they should adorn. They likewise think them properest for flower-gardens, and all other compositions, where much art is apparent in the culture; and where it should not be omitted in the forms.

Their regular buildings they generally surround with artificial terraces, slopes, and many flights of steps; the angles of which are adorned with groups of sculpture and vases, with ornaments intermixed with all kind of artificial waterworks, which, connecting with the architecture, spread the composition, serve to give it consequence, and add to the gaiety, splendor, and bustle of the scenery.

Round the main habitation, and near all their decorated structures, the grounds are laid out with great regularity, and kept with great care; no plants are admitted that intercept the view of the buildings, nor any lines but such as accompany the architecture properly, and contribute to the general symmetry and good effect of the whole composition; for they hold it absurd to surround an elegant fabric with disorderly rude vegetation; saying, that it looks like a diamond set in lead, and always conveys the idea of an unfinished work,

When the buildings are rustic, the scenery which surrounds them is wild; when they are grand, they are gloomy; when gay,

it is luxuriant : in short, the Chinese are scrupulously nice in preserving the same character throughout every part of the composition ; which is one great cause of that surprising variety with which their works abound.

They are fond of introducing statues, busts, bas reliefs, and every production of the chissel, as well as in other parts of their gardens as round their buildings, observing, that they are not only ornamental, but by commemorating past events, and celebrated personages, they awaken the mind to pleasing contemplation ; hurrying our reflections up into the remotest ages of antiquity ; and they never fail to scatter ancient inscriptions, verses, and moral sentences about their grounds, which are placed upon the back of colossal tortoises and elephants ; on large ruined stones and columns of marble, or engraved on trees and rocks : such situations being always chosen by them, as correspond with the sense of the inscriptions ; which thereby acquire an additional force in themselves, and likewise give a stronger expression to the scene.

They say that all these decorations are necessary to characterize and distinguish the different scenes of their compositions ; among which without such assistance, there would unavoidably be a tiresome similarity.

And whenever it is objected to them, that many of these things are unnatural, and ought therefore not to be suffered, they answer, that most improvements are unnatural, yet they are allowed to be improvements, and not only tolerated, but admired. Our vestments, say they, are neither like leather, nor like our skins, but formed of rich silks and embroidery, our houses and palaces bear no resemblance to caverns in the rocks, which are the only natural habitations ; nor is our music either like thunder, or the whistling of the northerly wind, the harmony of nature. Nature produces nothing either boiled, roasted or stewed ; and yet we do not eat raw meat ; nor doth she supply us with any other tools for all our purposes, but teeth and hands ; yet we have saws, hammers, axes, and a thousand other implements ; in short, there is scarcely any thing in which art is not apparent, and why should its appearance be excluded from gardening only ? Poets and painters soar above the pitch of nature, when they would give energy to their compositions. The same privilege, therefore, should be allowed to gardeners ; inanimate simple nature is too insipid for our purpose ; much is expected from us, and therefore we

have occasion for every aid that either art or nature can furnish us with. The scenery of a garden should differ as much from common nature, as an heroic poem doth from a prose relation; and gardeners, like poets, should give a loose to their imagination, and even fly beyond the bounds of truth, whenever it is necessary to elevate, to embellish, to enliven, or to add novelty to their subject.

The usual method of distributing gardens in China, is to contrive a great variety of scenes, to be seen from certain points at which are placed seats or buildings, adapted to the different purposes of mental or sensual enjoyments. The perfection of their gardens consists in their number and diversity of these scenes; and in the artful combination of their parts; which they endeavour to dispose in such a manner, as not only separately to appear to the best advantage, but also to unite in forming an elegant and striking whole.

(To be continued.)

ARTICLE II.

ON THE CRATÆGUS OXYANTHA AND ITS VARIETIES.

BY MR. JAMES SMITH, ABERDEEN.

THE garland of Flora does not possess a more charming blossom than this British hedge beauty; nor do the most luxurious spices of Asia, give a more grateful perfume than this sweet flowering shrub presents.

It is said that the hawthorn flowers, not only regale the spirits by their odour, but that they have the power also of counteracting poison. It has been made the happy emblem of hope, because the young and beautiful Athenian girls brought branches of hawthorn flowers, to decorate their companions and friends on their wedding day; whilst they carried large boughs of it to the altar. The altar of Hymen was lighted with torches made of the wood of this tree, and it formed also the flambeau which lighted the nuptial chamber.

Diodorus, a Sicilian historian, who flourished about forty years before the Christian era, tells us the Troglodites, when they interred the corpses of their friends and parents, tied branches of hawthorn to their bodies: and then, laughing, strewed the body first with the branches of this shrub, and afterwards with stones,

until it was covered. These simple people considered death as the morning of life, where they should never separate. Happy hope ! which gave the Troglodites immortality, and the Grecian youths fond of marriages ; may, you likewise, ever be the prop of the afflicted, and those whose friends

———— “ When they once perceive
The least rub in your fortune, fall away
Like water from you, never found again
But when they mean to sink ye.”

Religion which was given to bless mankind with cheerfulness and hope, has always been converted by the crafty, in ignorant ages, into rods of terror and torches of superstition ; and they did not fail to seize upon the hawthorn bush as an instrument with which they might impose on the credulous ; thus, in some parts of France, the country people affirm to you in good faith, that the hawthorn groans and sighs on the evening of Good Friday, and on this superstition, they have made it the emblem of lamentation. There are others, who gravely adorn their hats with a bunch of hawthorn, in the belief, that during a storm, the thunder will not dare to reach them, from respect to their head-dress It is also related, that on the morning following the horrible massacre of St. Bartholomew, a hawthorn was seen to blossom in the church yard of St. Innocent, in Paris, which is now converted into the hall or great market. It is hardly necessary to state, how differently the two parties interpreted this phenomenon.

We have also our Glastonbury thorn stories, to match those of our neighbours. Sanctified deceit affirmed, that this thorn was the identical staff of Joseph of Arimathea, the counsellor who buried Christ ; who, according to the tradition of the abbey of Glastonbury, attended with twelve companions came over into Britain, and founded in honour of the blessed Virgin, the first Christian church in this island. As a proof of his mission, he is said to have stuck his staff in the ground, which immediately shot forth and blossomed ; and the vulgar for a long time believed that this tree blossomed annually on Christmas day.

The Glastonbury thorn is a variety of the common white thorn *Oxycantha*, which blossoms in the winter about January or February, and sometimes even as early as Christmas.

It is often called white thorn from the colour of the flower-petals, May-bush from blossoms appearing in that month, and which were

more noticed in old times before the country was embellished with so many early-blowing shrubs; for on the festival of Flora, on the first of May, our ancestors never failed decorating with it the May-pole, which was permanently fixed in or near every town and village in the kingdom, and the boldest youth climbed to fix the garland of flowers on the top, whilst others less courageous, hung festoons and wreaths of flowers through the garland, or twined them around the pole,

“ To fetche the flowers fresh, and branch and blome,
 And namely, hawthorn brought both page and grome,
 With fresh garlandes, partly bleu and white;
 And then rejoyse in hir grete delite.”

CHAUCER.

A king and queen were then elected, who regulated the entertainment, and settled disputes; the former was distinguished by an oaken wreath, and the latter by one of hawthorn; when dancing and other rural sports took place in honour of the goddess. This rustic amusement was evidently introduced by the Romans; in their ancient games, that of Floralia were instituted in Rome as early as the time of Romulus, and which the Phoceans and Sabines observed even in earlier days. As Rome became degenerated, this feast was turned into scenes of the most unbounded debauchery and licentiousness; and it is related that Cato wished once to be present at the celebration, but when he saw that a deference for his presence interrupted the feast, he retired, not choosing to behold the indelicate spectacles that were about to take place in public. This behaviour so captivated the degenerate Romans, that the venerable senator was treated with the most unbounded applause as he retired, which shows that virtue and modesty are always respected even by vice itself.

At the present time there is not a door in Athens, that is not crowned with a garland of flowers on the 1st of May; and the youth of both sexes, with the elasticity of spirits so characteristic of a Greek, that when under the power of the Turks, they forgot or braved their masters, while with guitars in their hands and crowns upon their heads,

“ They lead the dance in honour of the May.”

Religious devotees call it the noble thorn, from a belief that it was this thorn which formed the crown of Christ.

The hawthorn branches are scarce less gaily besprinkled by Flora in the spring, than adorned by Pomona in the autumn, who nourishes the feathered choristers with these scarlet haws, and on this account we should have in our shrubbery

———— “ berry bearing thorns,
That feed the thrush,”

And none should omit

“ The hawthorn bush, with seats beneath the shade.”

The double blossomed hawthorn, is certainly one of the greatest ornaments of our pleasure grounds, whether it be kept as a shrub, or trained as a tree. There was, or perhaps still remains two large trees, of this description on the lawn, before Warwick house, at Worthing, whose impenetrable shade defies the beams of Sol, when he darts his fiercest rays.

Some of the double varieties are of a fine crimson, rose, and lake colour; others are white at their first appearance, and change to a faint red as they decay. The double blossoms are less fragrant than the common variety, which reminds us, says a French writer, of those young females who fear not to change their simple apparel for a more gaudy dress, which adds nothing to their attractions.

The foliage of the hawthorn is of the most agreeable medium green, and so highly polished, that the white flowers are reflected on their shining surfaces.

It has often caused our surprise that men who expend large sums of money in forming gardens of pleasure, and much time in selecting plants, should bestow no time or attention on botany, which would add so materially to the gratification which flowers give them; for without some slight knowledge of this science, they cannot enjoy the works of nature, because they do not know where to look, or the utility at what they look at. The botanist looks into the flowers of the hawthorn, not only to observe the stigma and to count the chives that surround it, but observes the shape of the five petals, whose concave forms protect the pollen, and mature it by acting as reflectors. He then sees them bend over their chives, and rest their heads of pollen on the stigma, which has some attractive power not yet defined. He is delighted with the regularity and order with which they discharge

their prolific powder, and retire back to give place to other chives until the whole have performed their office without confusion. He knows then that the petals have discharged their part towards the formation of the future plants and he sees them given to the wind without regret, because it is necessary for the young fruit to enjoy the juices of the plant, without being spent any longer upon the petals.

J. SMITH.

ARTICLE III.

ON THE GERANIUM HOUSE.

(Continued from page 256.)

“The tuberous-rooted sorts are much less generally cultivated now than formerly, their flowers bearing no comparison to those of the half shrubby kinds. Such may, however, be readily increased by planting pieces of the roots in small pots, in a slight heat; leaving a small portion of the root above ground.

On this subject, the following rational remarks are from the pen of Mr. Appleby, in a communication in the Horticultural Cabinet, Vol. V. p. 9.

“During the growing season, they require water very freely; but as soon as they have done flowering, and their leaves begin to turn yellow, decrease the quantity of water gradually; the best method to do this, will be to water once in three days, then once a week, then once a fortnight, and lastly once a month: by which time they will be completely at rest, when no water must be given them till they begin to grow again, which may be looked for about February and March. When at rest, any situation where they can be kept moderately dry and cool, will do for them: heat, light, and moisture being unnecessary.”

“The best time to increase this section of Pelargoniums, is just before they begin to grow. Take off a small tuber or two, where they can be spared, from each plant, and put them into as small pots as they can be placed, just to cover them; place them in gentle heat giving them but little water till they begin to grow, when they may be removed amongst the established plants, and the ordinary culture given; they may also be increased by seed

which, however, they do not produce so freely as the shrubby species."

In regard to the species that have not been hybridized, of which *P. bicolor*, *tricolor*, *ovatum*, *tetragonum*, *elatum*, *pendulum*, *fulgidum*, *elegans*, &c. form a part, the above authority directs as follows: "As they are all shrubby species, they require watering all the year, though always carefully, for if the soil gets soddened with water for any length of time, it is in general fatal to the plants. They also require greenhouse treatment during winter and spring. In summer they should be placed out of doors in an open situation, screened from high winds, and set upon a bed of ashes so thick, as to prevent worms from getting into the pot; keep them clear of weeds, tied up neatly, and regularly watered during dry weather. Pot them into larger pots when they require it, the best operation for which is the month of April.

To propagate them take youngish cuttings off about the month of May; fit some bell or small hand-glasses to such a number of pots as may be required; fill them half full with broken potsherds, rough bits of turf, or any thing that will permit the water to pass freely off; pot in upon them as much compost, (loam, peat earth, vegetable soil, and sand, in equal proportions, which is found to be the most proper for them) as will fill up to the top with pure sand, then give it a gentle watering, and insert the cuttings, giving more water to settle the sand close and firm to them. When pretty dry, cover them with the glasses, and place them in a gentle heat; pot them off, when struck, and keep them close and warm till they have struck root again; then give them the ordinary treatment as to situation, air, watering, potting, and so forth."

Propagation of the large or ordinary sorts of *Pelargonium*s by seeds is seldom practised, excepting with a view to obtain new varieties; and it is almost vain to attempt this, unless attention has been paid to artificial impregnation. *Geranium* seeds are best sown soon after they are ripe, provided that does not happen after August, in which case it would be better to delay sowing till February or March. When the seeds are sown, they should be placed in a mild hot-bed, and regularly shaded till they have vegetated, after which they should have been accustomed to the sun and air to harden them previous to their being potted, which should be done when they are about an inch, or an inch and a half high; their treatment after this differs from that of cuttings, only that they need not be topped with a view to form bushy plants, as

it is not until they flower that their merits can be ascertained.

Seedlings however should be stimulated, by being grown in very rich soil, and occasionally watered with liquid manure.

General treatment when in the House.

By the latter end of September, the Geraniums, if they have been placed out during the summer, should be arranged in their winter habitation, along with such as has been recently propagated from cuttings. We would be understood here, however of not advocating the practice of originating the whole collection of *Pelargoniums* annually from cuttings, for we have found that most sorts flower well the second year, by following the simple routine of shaking the mould entirely away from such plants as have been cut down, after flowering, re-potting them again in much smaller pots than those they flowered in, and placing them for a fortnight or three weeks in a close frame in which a slight bottom heat is maintained, until they begin to make fresh roots and break into young branches. After this they should be placed in a sheltered situation until the end of September, when they are removed into the Geranium house. During winter they should be supplied with air and water, and kept slowly growing until February, when they should be shifted into pots at least two sizes larger than those they have stood in during winter. From this time until they begin to come into flower, their growth should be encouraged by allowing them plenty of room on the shelves or stages, supplying them with an abundance of air and water, and turning them frequently round, so that all sides of the plants may enjoy an equal share of light and sun.

If kept too close, or too far from the glass, Geraniums are liable to grow up weak, and in that case seldom flower fine: they are also liable in that case, to be attacked by the green-fly, which must be removed upon its first appearance, by the application of tobacco smoke from the fumigating bellows. They are not subject to any other diseases. We are aware that this is not the practice followed by the most eminent growers of this splendid tribe, but we recommend it to such as, from a variety of circumstances, have neither the convenience or skill to bring on an annual supply.

The plants originated from cuttings planted in August and treated as directed above, may, when potted into two-sized pots, be

placed in the Geranium house, or if they be kept in a cool, airy pit or frame, they need not be removed till the beginning of November: at all events, at whatever period they are brought in, it is essential that they should be placed as near to the glass as possible, and abundantly supplied with air, and not set too closely together. All rambling shoots, and such as appear to grow too fast, should be pinched off, for the future habit of the plant depends on its treatment at this period. Most young plants have a tendency to send up one leading shoot, which often attains a considerable height without sending out lateral branches. A plant allowed to run so, can never afterwards be brought into a handsome form, and if the formation of the plant be not set about when young, it cannot be done afterwards without sacrificing the flowers, which lie in embryo in the points of the shoots that would in that case be cut off. One of the greatest faults in the ordinary mode of cultivating Geraniums is, to run up tall and naked at the bottom; when such a course is followed, the plants will neither flower well nor look so handsome.

The Greenhouse kinds of Geraniaceæ, though nearly all natives of the Cape of Good Hope, are much less hardy than the family of Erica from the same country; this may be accounted for in various ways;—soft wooded or succulent plants are more liable to be injured by frost, than hard wooded plants from that latitude, their exterior skin or outer bark being very thin, and their juices being extremely abundant. Again most of the family Erica are indigenous to the mountains, while most of the Geraniums are inhabitants of the plains, thus proving that altitude is as much to be studied in calculating the comparative degree of hardness in plants, as latitude.

“We know,” says Mr. M’Nab, “from undoubted authority, that certain species of Cape Geraniaceæ, and certain species of Erica grow together in the same kind of soil, and in the same situation, intermixed one with the other in their native country; but we know that in this country the same species of heaths will bear a degree of cold with impunity, which will materially injure, and in many cases kill the Pelargoniums growing beside them.

“To grow Cape Ericæ and Geraniaceæ well together, would require far nicer management than I pretend to be acquainted with. I know, however, that heaths will bear a degree of cold in the greenhouse in winter, (which I am persuaded is beneficial to their health) which will materially injure Cape Geraniaceæ. If

therefore a particular point is to be found to which the thermometer may be allowed to sink in the inside of greenhouses during a severe frost, will preserve the Geraniaceæ from injury and not produce too much heat for the safety of the heath, it is one which I have never been able to ascertain.

“I am speaking however, of these two families so as to have them in a high state of perfection. They must be both kept in the same house so as to make a tolerable appearance; but I believe not in such a state of perfection as if they were in separate houses; for the fire heat which is absolutely necessary during severe frost for the one, is, as far as my observation goes, sure to be in some degree injurious to the other.”

Most of the Cape species are much hardier than the English hybrids, for many of the former, particularly the tuberous-rooted kinds, stand in the open borders of this country during winter, while none of the latter, so far as we know, have ever been known to do so. The same degree of cold that would not injure the most tender Erica, would be fatal to the whole tribe of hybrid Geraniums.

During winter, frost must be excluded by covering the Geranium house with canvass, or by the application of artificial heat from the fire, either through smoke flues or hot water pipes, so as to keep the temperature from falling below thirty-two degrees, but it should by no means be allowed to rise by the same means to forty degrees, a higher temperature during the day and by sun heat, is quite a different thing.

On the general treatment of Pelargoniums, we find the following communication of Mr. Appleby in Vol V. of the Horticultural Cabinet, so replete with good sense and practical skill, that we cannot do better than give the quotation almost at length.

“The season to take Geraniums into the greenhouse depends upon the weather; and as all Cape plants are much healthier, and flower more freely the more they are exposed to the full air, so long as frosts keep off, I delay the taking them in: in fact, this last season, I did not house them generally until the middle of October. Choice kinds I have covered up with mats or large sheets of canvass, elevated on stakes, on such nights as are likely to be frosty.

“Perhaps no months in the whole year are so unhealthy for Geraniums as November and December, for the weather generally is dark, damp, and rainy, and the plants being full of sappy green

leaves, and having received a check from the new potting, are often shedding leaves, which I constantly remove, or they would become mouldy, and give out a bad smell, offensive both to the owners and to the plants themselves. At all times during the day I give as much air as possible, by opening the doors, windows, ventilators, &c. In the mornings I have a fire made to dry up damp, but allow it to go out before the house is shut up, for the remedy is worse than the disease; close heat at this season being most injurious.

“ During the severity of winter, fire is necessary to keep out the frost, (when very severe both day and night), but I am careful not to create damp by watering more than is absolutely necessary. It often happens on frosty days, that the sun shines clear and bright, and though the atmosphere is frosty, I always give air to lower the temperature of the house, to admit fresh, and to dry up damp.

ARTICLE IV.

ON THE DIFFERENT QUARTERS FROM WHICH THE WIND MOST PREVAILS EVERY MONTH IN THE YEAR.

BY AMICUS.

AS THERE are few persons who are not acquainted with the wonderful difference which takes place in the temperature of the atmosphere, by the wind changing from one point of the compass to another, I take the liberty of sending you an extract of Metreological observations during the period of ten years, shewing from what quarter the wind most predominates in each month, a knowledge of which, may, perhaps, not be uninteresting to your readers, as there is no doubt that the existence of plants depends more upon the state of the temperature of the atmosphere than any other cause whatever.

The winds which predominate most in each month of the year are as follows:

During the month of January, the northerly winds predominate by a fourth of their amount prevail over the southerly.

During the month of February, the southerly winds predominate over the northerly almost a third.

During the month of March, the north east winds are in greater proportion, than during any other part of the year, exceeding their own average by more than a third, probably from the cold winds which are engendered on the desert wastes of Siberia, or nothern Russia, seeking a more genial and warm climate at this season of the year.

During the month of April, the north-east winds abate somewhat of their excess, but still continue in very high proportion. The northerly winds predominate over the southerly; but the general easterly winds prevail over the westerly.

During the month of May, the north easterly winds having decreased for the last two months, fall below average, and the southerly winds predominate. Variable winds are at their greatest amount.

During the month of June the easterly winds predominate by more than a third, chiefly from a return of the north westerly wind.

During the month of July, the westerly winds prevail over all the rest; the south-west is also in high proportion; the north east is very low, and the wind from east to south at its minimum, having gone off for two months.

During the month of August, the wind from west to north is at its maximum, having increased for three months, and the wind from south to west, in high proportion, having increased for two months. The winds from north to east are at their minimum; and from east to south little removed from it. This month too, has the least proportion of variable winds.

During the month of September, there is almost a balance between the northerly and southerly winds; in other respects, the wind from east to south attains nearly its highest amount.

During the month of October, the north-east and south-east winds are nearly equal; but the winds from the south to west predominate over the whole; and with the aid of the wind from east to south, exceeds the northerly winds by a fourth of the sum of the latter.

During the month of November, northerly winds predominate at least by a fourth of their amount, chiefly bearing towards the east.

During the month of December, the northerly and southerly winds are nearly equally balanced; but the westerly winds double the sum of the easterly.

If you should think the above observations upon the variations of the wind worthy of insertion in the Cabinet, it is at your service, and also at the service of your readers.

AMICUS.

ARTICLE V.

REMARKS ON THE ROSE.

(Continued from page 256.)

At what period this beautiful flower first found its way into English gardens is uncertain. Gerard speaks of it as no rarity in 1597. Hackluyt says, that the damask rose was brought in by Dr. Linaker, physician to King Henry VII. and his successor. But from the verses of Chaucer, and other old Poets, it appears that the garden roses were common in this country at a much earlier period, and we can hardly suppose that so many pilgrimages would be made to Rome, and even to Jerusalem, without some one's bringing back plants of these flowers, that were so commonly used in Christian churches, and so highly extolled for their medicinal virtues.

In those early days the principal gardens of this kingdom were attached to priories and other religious edifices, and as the heads of these establishments had frequent communication with similar communities on the continent, we may safely conclude that so precious a gift as the rose would not pass neglected. From the uxurious manner in which the Romans lived in this country for many ages, and from their habit of wearing wreaths of roses at their banquets, it is more than probable that they introduced many kinds of their own roses into the gardens which they formed in this island. The principal variety of the Provence rose are, the Common, Scarlet, Blush, White, Rose de Meaux, Pompone, Rose de Rheims, Childing's Blandford, Rose of St. Francis, Shailer's,, and the varieties of the Damask rose are, the Red, Blush, York and Lancaster, Red monthly, White monthly, Blush monthly, Great Royal, Blush Goliath, and Imperial blush, with many others that are yearly raised in various parts of the world by sowing the seed.

THE MOSS ROSE.—*Muscova*.

“ The rose that hails the morning,
 Arrayed in all its sweets,
 Its mossy couch adorning,
 The sun enamour'd meets.”

This elegant rose is generally supposed to be the offspring of the Provence rose, whilst others think it belongs to the family of *Centifolia* or hundred leaved rose. It appears to be quite unknown to the ancients, as they have left no description of a flower that resembles it, and it is too singularly beautiful to have escaped Pliny's notice, had it been in existence. By Furber's catalogue it appears that it was cultivated here in 1724; but Miller first saw it in Dr. Boerhaave's garden in Leyden in 1727. The learned Doctor not only corresponded with many botanical persons in this country, but visited England, and became a member of the Royal Society of London. It is therefore most likely that on its first appearance in this country, a plant would be forwarded to Leyden, for the inspection of a person that all Europe was then regarding as the star of the age.

Although the moss rose appears to be a plant of so short an existence, its birth place is not satisfactorily known; but from all the accounts we can collect of its register, it appears to be a fortuitous child of England, as we have numerous accounts of its having been exported, but none of its importation into this island, nor has it been discovered elsewhere, except in a state of cultivation. Messrs. Lee and Kennedy, of Hammersmith have, a few years since produced a perfectly single moss rose, which they pronounce to be only a variety of the common Provins rose. We must therefore conclude that the moss-like pubescence of the calyx and young branches, is owing to some accidental circumstance which this climate produces, as we are told that this variety loses its mossiness, almost immediately when planted in Italy, and we have not yet heard of this rose having been in any instance raised from seed, for the single moss rose was reduced to that state from the double variety (either accidentally or intentionally) by a peculiar mode of cultivation. The single variety of the moss rose, as well as the double white moss rose; still continue scarce, and bring high prices to the nurserymen near London.

The moss rose is made the emblem of voluptuous love, and

the creative imagination of the poet thus pleasingly accounts for this rose having clad itself in a mossy garment :

“ The angel of the flowers, one day,
 Beneath a rose-tree, sleeping lay.
 That spirit—to whose charge is given,
 To bathe young buds in dews from heaven.
 Awaking from his light repose,
 The angel whisper'd to the rose,—
 ‘ O fondest object of my care,
 Still fairest found where all are fair,
 For the sweet shade thou’st given to me,
 Ask what thou wilt, ’tis granted thee,’
 ‘ Then,’ said the rose, ‘ with deepened glow,
 On me another grace bestow.’
 The spirit paused in silent thought,
 What grace was there that flower had not ?
 ’Twas but a moment—o’er, the rose
 A veil of moss the angel throws.
 And, robed in nature’s simplest weed,
 Can there a flower that rose exceed ?”

M. Redouté, the author of a French pictured work on Roses, seems displeas'd at our claiming the moss rose as originating in England: he says, nous ferons observer qu'il n'est pas rare de voir les Iconographes Anglais considérer beaucoup de plantes comme indigènes au sol de leur pays, toutes les fois que le lieu dans lequel elles végètent naturellement leur est inconnu, circonstance qui doit faire rejeter toutes les assertions de ce genre."

Madame de Genlis tells us, that during her first visit to England, she saw moss roses for the first time, and that she took to Paris a moss rose-tree, which was the first that had been in that city; and she says, in 1810, "the cultivation of this superb flower is not yet known in France."

Madame de Latour endeavours to do away with this statement. In a high strain of compliment, she says, "when Madame de Genlis returned from London to Paris, she was become very celebrated, and the crowds of people who went to her house under pretence of seeing the moss rose were attracted thither by that lady's celebrity; and the modesty of Madame Genlis alone could have led her into this error; for this rose tree," she adds, "which is originally from Provence, has been known to us for several ages."

Mr. Rossig, who has lately published a work on roses, and with good coloured figures, says, that the moss rose is found on the Alps. But this information comes rather late, as it is improbable that a plant of such a size and singular beauty should have escaped the penetrating eyes of the various botanists who have herbarized so frequently on these mountains, as not to have left a species of grass or even moss unrecorded.

The moss rose is propagated by layers or suckers which it sends up plentifully when growing in rich light garden mould, that is rather moist than over dry. When the branches are laid down they should be slightly bent so as to crack the bark, which will cause them to take root sooner. This beautiful rose is also increased by budding upon stocks of the other sorts, which is generally performed in the month of May; but these plants are not so durable as those raised by layers.

THE HUNDRED-LEAVED ROSE—*Rosa Centifolia*.

This is the rose which painters chuse to represent Love and Hymen. It is certainly a fine flower, being very double and of a deep crimson colour; but the perfume is very weak, and the petals do not hang so loose and gracefully as in many other species; and it has, from the regularity of its petals, been compared to a rose made by a turner, and there called *Flos quasi tornatus*.

This species of rose, which has become the Parent of a most numerous variety, is a native of the mountains lying between 41 and 42 degrees of north latitude, if we may trust to the best ancient natural historian that ever wrote on plants. Pliny says, that the roses which grow about Campania, in Italy, and near Philippi, in Greece, are so double, that they have a hundred leaves, and are therefore called *Centifolia*. "However," says the author, "these soils do not bring forth these hundred-leaved roses naturally, for it is the mountain *Pangæus*, near adjoining upon which they grow naturally, but when transplanted into the neighbourhood of *Philippi*, they become finer flowers than when on their native mountain;" and he adds, that "these very double roses are not so sweet as others."

This author tells us, that *Cæpio* who lived in the time of *Tiberius*,

was of opinion, that the hundred-leaved rose had no grace in a garland either for smell or beauty, and therefore should not be used in chaplets. Loureiro mentions it as a native of China; but Theophrastus and Pliny, clearly prove it to be an European tree.

Aiton does not notice the native place of this rose, and it is also omitted in *Le Bon Jardinier*, of Paris, down to the present time. The able compiler of the *Hortus Kewensis*, tells us from Gerard, that it was cultivated in our gardens in 1596. This appears to be an error, as Gerard in the original edition only notices this rose from the ancients; Martyn has fallen into the same mistake in his admirable edition of Miller.

We are not therefore able to discover at what time this rose was introduced, as it is not mentioned by Parkinson, in his *Garden of Pleasant Flowers*, of 1629; nor does it appear in his *Theatre of plants* of 1640.

THE CINNAMON OR MAY ROSE.—*Rosa Cinnamoma*.

This agreeably perfumed rose, which opens its small blossoms in our gardens about the end of May, is a native of Nice in Italy, and has been common in our pleasure-grounds for many ages, as Gerard tells us, in 1597, that it was then cultivated in this country, both in its single and double state.

This rose loves a dry soil and sunny situation, and deserves a more frequent place in the shrubbery than modern plantations allows it, as its flowers appear a month before the common roses, and the bush grows tall enough to fill a middle situation amongst shrubs, where its smooth plum-coloured branches have good effect.

It is a favourite with our fair, as it may be worn in the bosom longer than any other rose, without fading, whilst its diminutive size, and red colour, together with a pleasant perfume, adapt it well to fill the place of a jeweller's brooch.

THE MUSK ROSE—*Rosa Moschata*.

“ And each inconstant breeze that blows,
Steals essence from the musky rose.”

This species of rose owes its name to the fine musky odour

which its numerous white blossoms exhale during the autumnal months. It is a native of Barbary, and grows wild in the hedges and thickets in the kingdom of Tunis; and the Tunisians cultivate it also for the sake of a highly odorous essential oil, which they obtain from the petals by distillation.

This rose has been found growing naturally in Spain by Robert Moore, Esq. who sent seeds to this country. We presume it was planted in Spain, when the Moors first overran the coast of that country,

Hackluyt tells us, in 1582, that we first obtained the musk rose from Italy. It was cultivated commonly in the time of Gerard, and as it sends forth large umbel branches of flowers at the end of each branch, in the months of September and October, it forms an agreeable companion to the common China rose, which blossoms also plentifully at that season.

The stalks of the musk rose are often too weak to support the larger bunches of flowers that crown its branches. It therefore requires a support to keep them from the earth, unless it is planted with dwarf evergreens, that form a beautiful prop to these delicate blossoms.

THE YELLOW ROSE.—*Lutea and Sulphurea.*

The single yellow brier rose, is said to be a native of Germany, the south of France, and Italy; and the single orange-coloured rose, bicolor, is an Austrian rose.

That it was through these countries that we first became acquainted with the yellow rose, there can be no hesitation in stating; but they were originally brought from more eastern climates, seems equally certain, since no ancient author we have consulted mentions a yellow rose of any description; and had it been a flower created by the art of grafting, as was formerly imagined, we should, ere this, have discovered the fact. Ludovico Verthema tells us, in 1503, he saw great quantities of yellow roses at Calicut, from whence we have no doubt, both the single and double varieties were brought into Europe by the Turks, as Parkinson tells us in a work which he dedicated to Henrietta, the queen of our unfortunate Charles the First, that the double yellow rose "was first procured to be brought into England, by Master Nicholas Lete, a worthy merchant of London, and a great lover

of flowers, from Constantinople, which, as we hear, was brought thither from Syria, but perished quickly both with him, and to all other to whom he imparted it: yet, afterwards it was sent to Mr. John de Franqueville, a merchant also of London, and a great lover of all rare plants, as well as flowers, from which is sprung the greatest store, that is now flourishing through this kingdom."

(To be continued.)

ON GROWING PLANTS IN ROOMS.

BY A FOREMAN OF A LONDON NURSERY.

To treat on the proper management of plants in houses is a subject attended with considerable difficulty, every genus requiring some variation both in soil, water, and general treatment. If the room where the plants are intended to be placed, is dark and close, but few will thrive in it; if, on the contrary, it is light, and airy, with the windows in a suitable aspect to receive the sun, plants will do nearly as well as in a greenhouse; but if they are observed to suffer, the effects may generally be traced to one of the four following causes, want of proper light and air, injudicious watering, filthiness collected on the leaves, or being potted in unsuitable soil.

The want of proper light and air, is, perhaps, the most essential point of any to be considered; for however well all other requisites are attended to, a deficiency in either of these, will cause the plants to grow weak and sickly. Let them always be placed as near the light as they can conveniently stand, and receive as much air as can be admitted, when the weather will allow; indeed those persons who have no other conveniency than the house to keep them in, will find that they derive immense advantage from being, during fine weather, in spring and autumn, turned out of doors in the evening and taken in again in the morning, the night dews contributing greatly to their health and vigour.

Injudicious watering does more injury to plants in rooms, than many persons imagine. To prevent the soil ever having a dry appearance, is an object of importance in the estimation of many, they therefore water to such an excess, that the mould becomes sodden, and the roots consequently perish. Others, to avoid this evil, run into the opposite extreme, and scarcely give sufficient

to sustain the life of the plant. This is, however, by no means so common a practice as that of giving too much; for in general, if anything appears to be the matter with the plants, large doses of water are immediately resorted to, and if recovery is not speedy, it is again administered, with but little doubt of its infallible restorative powers: but such persons like an unskilful physician, who gluts the weakly stomach of his patient, only hasten what they are trying to prevent. This overplus of water, will show its bad effects by a very dark colour, and if the plant receives too little, the leaves will turn yellow, and eventually die.

The best plan is, to always allow the soil in the pot to have the appearance of dryness, (but never sufficient to make the plant flag), before a supply of water is given, which should then be pretty copious, but always empty it out of the pan or feeder in which the pot stands, as soon as the soil is properly drained. The water used for the purpose, ought always to be made about the same temperature as the room in which the plants grow, never use it fresh from the pump, but either let it stand to warm all night, or take off the chill by adding a little warm water to it, or the growth of the plants will be much checked.

Filthiness collected on the leaves, may either arise from insects or dust, the former may be speedily remedied, by placing the plants under a hand glass, or any thing that is convenient, and burning some tobacco till they are well enveloped in the smoke; and the latter may be removed, by occasionally washing them on the head with pure water, either by means of a syringe, the rose of a watering pan, or with a sponge if the dirt still adheres.

By being potted in unsuitable soil is by far the most difficult part of the business to rectify, for no certain line can be drawn unless each genus was treated on separately; however, as this cannot be done in a paper like the present, a few general remarks which, perhaps, with some little exceptions, may be found to be pretty correct, will suffice.

All plants whose branches are fragile or slender, and roots of fine thready, fibrous texture with general habits like the *Ericæ*, as *Diosma*, *Andersonia*, and *Epacris*, will require the same soil (peat earth) and very similar treatment to Cape heaths.

Those whose wood and general habits partially differ, and whose roots are of a stronger texture, as *Acacia*, *Ardisia*, *Stenocarpus*, *Tetrathica*, *Tristania*, &c. will require a portion of sandy

loam, in many cases about equal parts ; and where the habits differ materially from the Heath, only a small portion of peat earth will be required, and a compost may be made a little rich, by the addition of well rotted dung, or a similar soil to that prescribed for pelargiums.

Almost all Cape and other bulbs, as *Sparaxis*, *Ixia*, *Gladiolus*, *Tritonia*, &c. thrive best in a rich sandy loam, without a mixture of peat.

Shrubby and herbaceous plants, with luxuriant roots and branches, as several species of *Myrtus*, *Jasminum*, *Hibiscus* *Hermannia*, *Heliotropium*, &c. require rich loam, lightened with leaf soil, without any portion of peat.

Plants with powerful roots, and but slender heads, as *Veronica*, *Senecio*, *Scutellaria*, *Ruellia*, *Mauradia*, &c. require a light sandy soil, mixed with a small portion of leaf mould and very rotten dung. At the time of potting always lay plenty of potsherds at the bottom of each pot, to give a good drainage.

It will be seen that those directions do not allude to either Orchideous, Succulent or Aquatic plants.

Many of the Orchidaceæ are parasitical, and require a portion of decayed wood, mixing with the soil ; others grow in damp moss, these being chiefly stove plants, they will not flourish in a room. There are several genera, that do very well both in the greenhouse and in rooms, as *Arethusia*, *Calopogon*, *Dendrobium*, *Ophrys*, &c. the soil suitable for these, is a mixture of about equal parts of light sandy loam and peat ; very little, or no water, must be given when they are not in a growing state.

Succulent plants of all descriptions, require very little water and in general very easily managed in rooms ; many of them thrive in a mixture of sandy soil and lime rubbish, as *Aloe*, *Cacalia*, *Cactus*, *Aizoon*, &c. others grow well in a mixture of peat and loam, as *Coris*, *Cotyledon*, *Mesembryanthemum*, &c.

Aquatic plants, as *Villarsia*, *Actinocarpus*, &c. generally do well in a mixture of peat and loam, and require to be kept constantly in a wet state ; indeed the best way is to place the pot in a deep pan or feeder, which should always be kept full of water.

Bulbs of most sorts flourish in rooms, with less care than most other kinds of plants.

If the above precautions be attended to, plants may be brought to nearly, if not altogether to as much perfection as in a greenhouse.

BY A FOREMAN OF A LONDON NURSERY.

ARTICLE VII.

ON THE CULTURE OF FUCHSIAS IN POTS.

BY MR. W. M'P. STRADSETT HALL GARDENS.

HAVING derived much information since I became a subscriber to your useful and interesting publication, the Cabinet, I beg to forward you my method of treating that beautiful tribe of plants, so profuse in their flowering, and so well adapted for the greenhouse.

Propagation.—About the middle of March I take off cuttings, always choosing the young wood, with a little of the old attached to them, after dressing off one or two of the under leaves, I insert them in a compost of equal parts of peat and leaf, mould, and one-third loam, adding as much sharp sand as will keep the soil open. I then give them a gentle watering over hand with a fine rose, and after allowing the leaves to dry, plunge them into a hot frame previously prepared.

Culture.—As soon as they are rooted, I pot them off singly into pots, according to their size, always allowing them good drainage, using the above compost for this and all other shiftings, I replace them in the frame again until they have struck fresh root; I then remove them into the greenhouse, placing them in the front shelves. When the roots fill the pots, they should be shifted into a size larger, and towards the end of June, they will require a still larger pot; they should be liberally supplied with water at this stage of their growth, giving them a little over head, which causes them to grow freely, at the same time giving them a healthy appearance. About the beginning of August I finally shift them into pots from 12 to 14 inches in diameter, training them up to single stems.

Towards the end of October, they will require but little water, and during the winter they ought to be kept in a dry state, till they begin to push in the spring I always prefer young plants for pots, as they look much better than the old ones. I have had them from four to five feet in height, displaying their beautiful pendant blossoms in great profusion.

If you think the above remarks be worthy a place in your publication, they are at your disposal.

W. Mep.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

1, SPATHODIA PENTANDRIA. Five stemmed. (Bot. Mag. 368t,

RIGNONIACEÆ. DIDYNAMIA, ANGIOSPERMIA.

It is a bignoniaceous flowering tree, and a native of India. It has bloomed in the stove of the Glasgow Botanic Garden during the last summer, the plant having attained the height of twenty feet. The plant grows erect, slightly branching at the top, where alone it is leafy. The flowers are produced upon a large panicle, and are very handsome, having much the appearance of a fine head of rosy lilac-coloured *Rhododendron ponticum* flowers. Each flower is about two inches long, limb, white and rosy purple, tube, yellowish white, calyx, dark red. It is altogether a notable plant. *Spathodea*, from *spathe*, a *spatha*; from the sheathing nature of the calyx.

2. VERONICA PROSTRATA. var. Savory-leaved. Prostrate Speedwell. (Bot. Mag. 3683.

SCROPHULARINÆÆ. DECANDRIA MONOGYNIA.

A hardy perennial plant, producing flowers of great beauty. The stems are at first prostrate, then rises six or eight inches high, having long racemes of brilliant blue flowers which continue to bloom in succession for several months. It merits a place in every flower garden, being one of the most showy plants cultivated. It may be procured at the public nursery establishments at a low price, and is very easy of increase.

3. PLEUROTHALIS VITTATA. Striped-flowered. (Bot. Reg. 133.

A native of Mexico, introduced into this country by Messrs. Loddiges. The stem appears to be of a prostrate habit, The flowers are slightly stained with dull purple. Sepals, the lower spotted with deep purple, the upper striped with the same colour,

4. CATASETUM ATRATUM, Dark-flowered, (Bot. Reg. 63.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Was introduced from Brazil by Messrs. Loddiges, and in whose extensive collection it has bloomed. It is so very distinct from other kinds that it is not considered a genuine species of *Catasetum*, having equally, a characteristic resemblance to a *Mynanthus*, into which genus, however, it is ultimately adopted, it will be a valuable augmentation. The blossoms are green, spotted with cinnamon, and each blossom about an inch across.

5. HELICHARYEUM MACRANTHUM. Large-flowered. (Bot. Reg. 58.

COMPOSITEÆ. SYNGENESIA, POLYGAMIA SUPERFLUA.

This very pretty everlasting flower has been introduced by Robert Man-

gles, Esq. from New Holland, where in the Swan River colony it is found growing profusely. It is an annual, producing large white flowers, and the end of each petal is beautifully tipped with rose. The genera *Helicharyeum* being very productive of seeds, we have no doubt but the present variety will soon become common in our gardens.

6. *HOVEA MANGLESII*. Captain Maugle's. (Bot. Reg. 69.

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

A very pretty species of this beautiful genus, and is another of the valuable introductions of Mr. Mangle's, after whom Doctor Lindley has named it. It coincides much with *H. lanceolata*, but differs from that species, by being much more hairy. The blossoms are of a beautiful pale purple.

7. *MELOCACTUS DEPRESSUS*. Depressed. Bot. Mag. 3691.

CACTÆ. ICOSANDRIA. MONOGYNIA.

This species of melon-shaped Cactus, was introduced from Pernambuco by Mr. Gardner, and is now cultivated in several collections. It is an interesting species, and when out of bloom, produces a remarkable appearance, by the seed vessels, which are of a delicate transparent rose colour, rising erect above the crown.

8. *PAVONIA SCHRANKII*. Mr. Schrank's. (Bot. Mag. 3692.

MALVACEÆ. MONADELPHIA POLYANDRIA.

This beautiful species was sent from the Berlin Botanic Garden to Edinburgh, and in the stove of the Botanic Garden there, has produced its brilliant blossoms, which are about an inch and a half long, and one inch across, of a bright orange and scarlet colour.

9. *PAXTONIA BOSEA*. Rose. Bot. Reg. 60.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A curious and beautiful Orchidæ, introduced from Manilla by Mr. Hugh Cumming, and has bloomed in the collection of Messrs. Loddiges. The blossoms are pale, whole coloured, pink, and about an inch across. ~~scarcely~~

10. *PENSTEMON GLADULOSUM*. Glandular. Bot. Mag. 3688.

SCROPHULARINEÆ. DIDYNAMIA, ANGIOSPERMIA.

This handsome species is one among the numerous introductions of the late lamented Mr. D. Douglas. The plant is perfectly hardy, and blossoms during June and July. The colour of the flowers are lilac.

11. *STEVIA FASCICULARIS*. Close-headed. Bot. Reg. 59

COMPOSITEÆ. SYNGENESIA, POLYGAMIA EQUALIS.

A pretty little greenhouse plant, introduced from Mexico by G. F. Dickson, Esq. Its small pale blossoms are produced in close heads of about an inch in diameter, and which are sweet scented. *Stevia*, named in compliment to Mr. P. G. Esteve, professor of Botany at Valencia,

R E V I E W .

The Rose Fancier's Manual.—By Mrs. Gore. 12mo, pp.434
London, 1838.

(Continued from page 258.)

The *R. ferox* mingles its large red blossoms and thorny branches with those of the hundred-leaved; and the *R. pulverulenta* is also observed on the peak of Narzana, one of the Circassian chain.

“In the north of Asia, Siberia boasts the *R. grandiflora*, of which the corolla bears the form of an antique cup; the *R. caucasea*, the fruit of which is of a pulpy substance; and still adjoining the Caucasian provinces, we find a yellowish variety of the *caucasea*, of a dingy unattractive appearance. Advancing towards the Frozen Ocean, and beyond the Ural Mountains, grows the *R. rubella*, of which the petals are sometimes of a deep crimson, but often pale and colourless as the surrounding country. Still further north, flourishes the *R. acicularis*, bearing solitary flowers of a pale red. Ten or twelve other species grow in the Russian provinces of Northern Asia; in particular, the *R. kamschatica*, bearing solitary flowers of a pinkish white.

“In Africa, one of the borders of the vast desert of Sahara, and more especially in the plains towards Tunis, is found the *R. moschata*, whose tufts of white roses give out a musky exhalation. This charming species is also to be found in Egypt, Morocco, Mogadore, and the Island of Madeira. In Egypt, too, grows the *R. canina*, or dog rose, so common throughout Europe. In Abyssinia, we find an evergreen rose tree, with pink blossoms, which bears the name of the country, as the *R. abyssinica*. Other species are, doubtless, to be found in the unexplored countries of Africa.

“In Europe, commencing, to the north-west, with Iceland (so infertile in vegetation, that in some parts the natives are compelled to feed their horses, sheep, and oxen, on dried fish), we find the *R. rubiginosa*, with pale, solitary, cup-shaped flowers. In Lapland, blooming almost under the snows of that severe climate, grows the *R. majalis*, small, sweet, and of a brilliant colour; and the same beautiful species, as if in enlivenment of the cheerless rudeness of the climate, is to be found in Norway, Denmark, and Sweden. In Lapland, too, under shelter of the shrubby evergreens, among which the natives seek mosses and lichens for the nourishment of their reindeer, they find the *R. rubella*, already mentioned, the flowers of which are sometimes of a deep red colour.

“The *R. rubiginosa*, the pale flowers of which grow in clusters of two or three; the May rose; the cinnamon rose, the small pale red flowers of which are sometimes single, sometimes double; as well as several other hardy species; may be found in all the countries of Northern Europe.

“Six species are indigenous in England. The *R. involuta* exhibits its dark foliage, and large white or red flowers, amid the forests of North Britain, the leaves of which, when rubbed, giving out a smell of turpentine, as if derived from the pine trees among which the shrub takes root. In the same neighbourhood are found the *R. Sabina*; the *R. villosa*, the flowers sometimes white, sometimes crimson, blowing in pairs; and the *R. canina*.

“The environs of Belfast produce an insignificant shrub, known as the *R. hibernica*, for the discovery of which Mr. Templeton received a premium of fifty guineas from the Botanical Society of Dublin, as being a new indigenous plant, though since discovered to become the *R. spinosissima* in poor soils, and the *R. canina* in loamy land.

“Germany, though unproductive in rose trees, boasts of several highly curious species; among others, the *R. turbinata*, of which the very double flowers spring from an ovary, in the form of a crest; and the *R. arvensis*, with large flowers, red and double, in a state of cultivation.

“The Swiss mountains, and the Alpine chain in general, are rich in native roses. Besides the field rose, just mentioned, they have the *R. alpina*, an elegant shrub, with red solitary flowers, furnishing many varieties in cultivation; the *R. spinulifolia*, having pale pink flowers of moderate size, with thorny leaflets, that exhale a scent of turpentine. It is remarkable that two mountain roses, the Swiss *R. spinulifolia* and the Scottish *R. involuta*, should be thus alike characterised by the smell of turpentine. There remains to be cited among Alpine roses the *R. rubrifolia*, of which the red-tinted stems and leaves, as well as the pretty little blossoms of a deep crimson, form an agreeable variety to the verdure of the surrounding foliage.

“In the eastern and southern countries of Europe, rose trees abound; of which a considerable number remain to be examined and classed. The Crimea, for instance, is not acknowledged to contain a single species, though travellers describe the country as very productive in roses. In Greece and Sicily, we find the *R. glutinosa*, of which the leaflets produce a viscous matter; the flowers being small, solitary, and of a pale red. Italy and Spain have several distinct species; among others, the *R. Polliniana*, with fine large purple flowers, growing in clusters of two or three, and found in the neighbourhood of Verona. The *R. moschata* and *R. hispanica* flourish in Spain; the latter being at present excluded from the species established by Lindley. The flowers, of a light pink colour, appear in May. The *R. sempervirens*, common in the Balearic Islands, grows spontaneously throughout the south of Europe, and in Barbary. Its foliage, of glossy green, is intermingled with a profusion of small, white, highly scented flowers.

“For France, nineteen species are claimed by the Flora of De Candolle. In the southern provinces is found the *R. Eglanteria*, whose golden petals are sometimes varied into a rich orange. The *R. spinosissima* grows in the sandy plains of the southern provinces, having white flowers tipped with yellow, which have furnished many beautiful varieties. In the forests of Auvergne and the departments of the Vosges, we find the *R. cinnamomea*, which derives its name from the colour of its branches; the flowers being small, red, and solitary. The *R. parviflora*, or Champagne rose, a beautiful miniature shrub, adorns the fertile valleys in the neighbourhood of Dijon with its very double, but small, solitary, crimson blossoms. The *R. gallica* is one which has afforded varieties of every hue, more especially the kinds known as Provins roses, white, pink, or crimson. In the Eastern Pyrenees grows the *R. moschata*, a beautiful variety of which is known in our gardens as the nutmeg rose. The *R. alba* is found in the hedges and thickets of various departments, as well as the *R. canina*, or eglantine, the stock of which, straight, elegant, and vigorous, is so valuable for grafting”

This article, which is a translation from the French of Boitard, is by far the most interesting part of Mrs. Gore's book; as the monograph, to be hereafter noticed, and which is also after Boitard, is the latest and best that has yet been published.

The next article is on the culture of the rose, which is its principal use, as little is said of the culture of roses. Next follows “Botanical Character of the Rose;” “Hybrid Varieties of the Rose;” “Classification by Specific Character;” “Distinction of Species;” “Bibliography of the Rose;” and “Pharmacopœia of the Rose.” This brings us to the end of Part I. page 79.

PART III.

MISCELLANEOUS INTELLIGENCE.

 QUERIES.

ON FORCING ROSES, and a list of kinds best suited for the purpose, &c.—It is difficult to obtain perfect blossoms on Rose-trees forced to bloom in February or March, and information on the subject through the medium of your useful and excellent publication, will be very acceptable.

These flowers are liable to hang down and lose their petals before they are fully expanded. Directions for their treatment are requested, particularly with regard to the degree of heat required, and the length of time the plants should remain in a stove, also whether it is advisable to sprinkle them freely with water early in the morning.

In addition to these inquiries information as to the Best Species of roses for forcing will much oblige

A SUBSCRIBER.

October 12th, 1838.

 REMARKS.

Plants Noticed in the the Bot. Reg, but not Figured.

AMPELYGONUM CHINENSE.—On examination, Dr. Lindley has determined to construct a new genus for this plant, and has assigned for it the name of 'Cephalophilon.' From this plant, Indigo, of an excellent quality is obtained. "Polygonum tinctorium; also in our gardens, is at this time extensively cultivated in Belgium as a domestic substitute for the tropical Indigo, and is said to produce the dye in great abundance, and of the finest quality."

BANISTERIA TENUIS.—A native of Buenos Ayres. The flowers are a bright yellow, and the plant is a greenhouse creeper.

BERBERIS TENUIFOLIA.—This will prove a most valuable addition to the interesting and beautiful evergreens composing this genus. It has been sent from Vera Cruz, by Mr. Hartweg, to the Horticultural Society, London. It is expected to be nearly as hardy as *B. fascicularis*, and is described as "an evergreen bush with thin, smooth, rather glaucous pinnated leaves, entirely free from all spinosity."

CALYSTEGIA SEPIUM.—This, although a native of New Holland, is identified with the European Bind weed, and we presume it is only noticed by Dr. Lindley on account of its having been found in Australia.

CATASETUM ATRATUM.—A native of Brazil, and cultivated by Messrs. Loddiges. The flowers are dark. A figure will shortly be given in the Bot. Reg.

CARPESIUM PUBESCENS.—Seeds of this plant have been received from Dr. Falconer; a plant of little importance, and a mere variety of *C. nepanense*.

CYNGLOSSUM GRANDIFLORUM.—A beautiful herbaceous plant, growing to the height of nearly three feet, with a strong and branching stem. The flowers are blue, bordered with white.

CYPELLA PLUMBEA.—Seeds of this plant have been introduced from Mexico, by George Frederick Dickson, Esq. It has somewhat the appearance of *tigridia*, and like this plant, the flowers are equally fugitive.

ECHEVERIA SECUNDA.—Raised in the garden of Sir Charles Lemon. It is a Mexican plant, requiring a high temperature a gravelly soil and very little water.

ENTELLA PALMATA.—A greenhouse shrub, occasionally cultivated in collections under the name of *sparmannia palmata*.

HYDROTENIA MELEAGRIS.—The curious plant in question, forming the basis of a new genus, has been found near the Real del Monte mines in Mexico, and communicated to Dr. Lindley, by John Rogers, jun. Esq., of Seven Oaks. It would appear to be intermediate between *tigridia* and *tritillaria*. The flower-stem is about eighteen inches high, and the flowers are in form and colour like *tritillaria pyrenaica*, but somewhat smaller.

MAXILLARIA VITELINA. This is a very beautiful plant, with yellow flowers, a native of Brazil, remarkable for having a rich deep brown spot in the centre of its yellow lip.

MORRENIA ODORATA.—A native of Buenos Ayres, and raised from seeds in the gardens of the Horticultural Society, London. This is a greenhouse plant, flowering in August and September. The name *Morrenia* has been given to this genus, to commemorate the name of Professor Chas. Morren, of Liege. The species in question requires the protection of the greenhouse, and is a dwarf creeper, with small dingy green flowers.

NICOTIANA ROTUNDIFOLIA.—Also a native of Swan River, and introduced by Robert Mangles, Esq., of Sunning Hill. The flowers are smaller than those of *N. suaveolens*, and the leaves resemble those of *Petunia nyctaginifera*. It is a hardy annual with white flowers.

ONCIDIUM PULVINATUM.—A desirable plant, resembling *O. divaricatum*. The panicle of the flowers is eight or nine feet in length. A figure of this is also promised.

ONCIDIUM HIANs.—A small species approaching near to *O. carinatum*; a native of Brazil, and cultivated by Messrs. Rollessons. "It has small yellow and brown flowers, with an extraordinary appendage to the lip, erect white fleshy, as long as the column parallel with that organ, and resembling the four fingers of the hand, a little hollowed, and closed together. This is quite a new modification of structure.

PAXTONIA ROSEA.—Said to be a most curious plant, sent from Manilla, by Mr. Cumming. It flowered in the collection of Messrs. Loddiges during June last. This genus has been named in honour of Mr. Paxton, whose name deserves to be permanently associated with *Orchidaceæ*, a fact which will be readily admitted by all who have witnessed the admirable manner this curious and ornamental family is managed at Chatsworth.

PHYSOSIPHON CARINATUS.—This plant has recently been imported from Mexico, by George Barker, Esq., of Birmingham.

PICRIS BARBARORUM.—A cichoraceous plant, a native of New Holland, where it is used by the natives as an article of food; and Dr. Lindley says it is about as fit for this purpose as the common sow thistle.

PIMELEA CRINITA.—Said to be a pretty little plant, with white flowers. It has flowered in the collection of Robert Mangles, Esq., of Sunning Hill. It is a native of Swan River.

PODOLPIS CONTORTA.—A pretty perennial plant, with golden yellow flowers and dark green fleshy leaves. The flower stem is from six to nine inches high. Seeds of this plant were sent from Van Dieman's Land, by Mr. J. Bunce, to the Horticultural Society, London.

POLYGONUM AMPLEXICAULO.—"This charming herbaceous plant, inhabiting the mountains in the north of India, with long graceful racemes of the most brilliant ruby-coloured flowers," has lately made its appearance among some plants raised from seeds; we are not informed where, but a figure is promised. Its flowering season is July and August.

PSORALEA CINEREA.—An annual plant, of little beauty, with small purple flowers. A native of New Holland.

ROSERA AURANTIACA.—Is a native of the interior of New Holland; the flowers are of an orange-yellow. It has been raised in the garden of the Horticultural Society, where it flowers in the open border during July.

SEDUM MISERUM.—A succulent plant of no beauty; a native of Mexico.

SPIRANTHES DIURETICA.—A native of Chili, with white and green flowers, studded in a beautiful manner with crystalline points. It is an orchidaceous plant, succeeding very well in the greenhouse.

THYSANOTUS INTRICATUS.—A figure of this pretty plant is promised to be given in the Bot. Reg.

VANAA LAMELLATA.—The flowers of this plant are as large as those of *V. Roxburghi*. The flowers are pale yellow, and stained with red. It is nearly allied to *V. spalutata*, a species common in the East Indies, but which no one seems yet to have imported.

EDITOR OF MONTHLY NOTES.

When plants are of half hardy perennials, they are taken up at the end of the season, preserved in pits or frames through winter, and turned out early in spring. In some of the beds a training plant is planted at the centre, such as *Maurandia Barclayana*, &c., and trained to rods or wires from the centre, in lines to the outside of the bed. As great a contrast in colour as possible is attended to, such as a bed of yellow *Calceolarias*, having the *Maurandia Barclayana*.

Enothera Speciosa, with its showy white flowers and the *Lysimachia pericillata*, yellow, are found to bloom freely where the shade of trees was very dense. The *Enothera taraxifolia* will also flourish well in such a situation. When grown in the pleasure ground, near to the walk, they have a very fine effect towards evening.

Campanula garganica with its pretty blue flowers, is one of the most ornamental of dwarf plants to be grown in a mass. Against a wall of some extent, Summer and Autumn flowering Roses are trained; some of the Autumn flowering kinds require to be protected, but an interesting discovery has been made relative to these kinds, viz. by having hardy kinds budded on the extreme shoots of the tender ones, and whilst all the shoots upon such plants not budded were destroyed by the severity of the last winter, not any of those parts which had been budded upon were in the least injured. Thus it appears that the vigorous and late growth of the scions, kept the stock in a condition of vigorous growth at the season when otherwise it would have been dormant.

It is stated in Paxton's Magazine of Botany that seed of the *Rhodanthe Manglesii*, being sown in August in pots, having each pot filled about one half with broken potsherds, and then nearly filled up with a compost of (equal parts) decayed leaf mould and light maiden earth, on which the seed is sown and just covered from the light, kept moist, and placed in gentle warmth. The plants, as soon as can be done, are potted singly into small sixty sized pots, well drained. They are removed into larger pots as the roots issuing through the holes at the bottom indicates, and are kept in the greenhouse through winter, when they will bloom from the end of March. Sowings made in September or October, bloom proportionably later, and somewhat finer than the August sowing. Such a very neat and beautiful

flowering plant, well merits any attention given to it, and in the early part of the season is very ornamental for a greenhouse or room. Plants either in the open ground or pots, when the blooming is over, if not allowed to produce seeds, the withering flowers be cut off, and the plants be repotted into larger pots, will induce a fresh growth, and they will bloom abundantly.

The same attention to many of the new and showy annuals would be attended with equal success, and thus a Greenhouse, Conservatory, or Room might be highly ornamented in spring and early summer. Such kinds as *Nœmophilas*, *Eutocas*, *Gilia tricolor*, *Hibisens Africanus*, *Calundrinia discolor*, *Browallea grandiflora*, *Bartonia aurea*, *Nolana atriplicifolia*, *Campanula Loreii*, *Clintonia pulchella*, *Lapinus nanus*, *Lupinus elegans*, *Malope grandiflora*, *Shænogyne speciosa*, *Salpiglossis pulchella*, &c. These require no forcing, and when in bloom mixing with bulbous flowering plants, &c., produce a lively effect. We have seen an instance where this attention to their culture has been attended to for the last three seasons, with delightful success. (CONDUCTOR.)

Dahlias have this season been trained against a wall, and blooming profusely, had a beautiful appearance. In both sun and shade they succeeded well. *Chrysanthemums*, in either situation, did alike well. Heartsease trained against a shady wall, to fill up the vacancies between Dahlias or *Chrysanthemums*, have succeeded admirably.

NEW OR RARE PLANTS.

URCEOLINA PENDULA.—An *Amaryllidæ* plant, a native of the shady woods of the Peruvian Andes. The flowers are yellow with a green and white margin. It has bloomed in the greenhouse of the Honourable and Reverend W. Herbert, Spoffirth.

MIMOSA MARGINATA.—This pretty plant has been grown in some collections of this country for about four years, and gone by the name *Mimosa prostrata*, *M. Mexicana*, and *M. scandens*. It has stood during the winters of 1837 and 1838 in the open border. It is a very neat plant for training against a wall, verandah, &c. Its pretty purple heads of flowers and neat foliage strongly recommend it.

DENDROBIUM DENUDANS.—brought into this country by His Grace the Duke of Devonshire's collector in India. The flowers are produced on nodding racemes, and are green and white.

CœLOGYNE WALLICHIANA.—Another *Orchidæ* brought by the before mentioned collector. In its native country it grows and covers the ground with a pavement of its curious stems, which wither up in the dry season, but change into a brilliant carpet of rosy flowers when rain has descended.

MENDINILLA CRYTHROPHYLLA.—A plant belonging to the *Melastomacæ* tribe, brought from India by the above named collector. The flowers are of a bright rose colour, near an inch long, produced on axillary cymes.

GARDOQUIA BETONICOIDES.—Mr. Lowe of the Clapton Nursery received seeds of this plant from Mexico, and succeeded in raising it, with whom it has bloomed. It is an erect, sweet scented herbaceous plant. The flowers are of a bright purple. It resembles *G. Multiflora*, but the flowers are rather smaller.

TRADESCANTIA IRIDESCENS.—A native of Mexico, from whence it has been sent to Sir Charles Lemon, Bart. M. P., in whose collection it has recently bloomed. The flowers are produced numerously, and are of a bright reddish-purple colour. It is probable it will prove a half-hardy herbaceous plant.

IPOMŒA TYRCANTHINA.—G. F. Dickson, Esq. received seeds of this plant from Mexico, a plant of which has bloomed in the garden of the London

Horticultural Society. It is superior to either *I. Horsfalliæ* or *I. rubrocœrulea*. The flowers are very large, of a rich deep-purple, and being produced in profusion, have a splendid effect. It is a fine plant for the stove, conservatory or greenhouse.

EPIDENDRUM CALAMARIUM.—From Brazil. The flowers are of a yellowish green, with fine small violet coloured spots. It has bloomed with Messrs. Loddiges's.

COMBRETUM MACROPHYLLUM.—This is a noble species not yet bloomed in this country. The foliage is fine, each leaf being about twelve inches long and four broad, of a fine deep green. If the flowers should be in proportion and of a vivid colour, it will be a most ornamental climbing plant for the conservatory. Messrs. Rollissons of Tooting possess the plant.

ACACIA KERMESINA.—This new species is in appearance like *A. Julibrissin*, but the flowers, which are produced numerously, are of a fine scarlet colour, and consequently have a very showy appearance. It is also in the possession of Messrs. Rollissons. We also have plants of it.

CEPHORANTHUS INCURVALLIA.—This is a beautiful parasitical plant, producing numerous clusters of orange-scarlet flowers, have a very pretty appearance. It is an interesting plant for the stove or conservatory. Plants are now offered at two guineas each by Messrs. Rollissons.

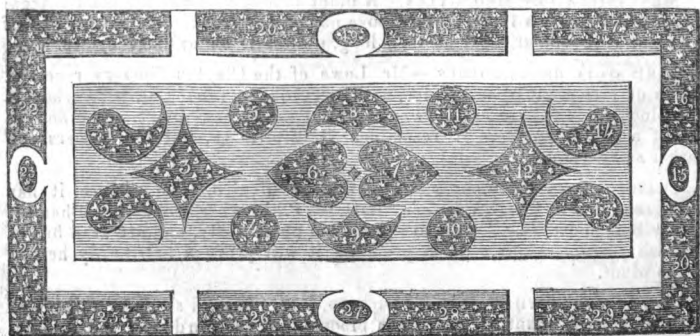
KENNEDIA MACROPHYLLA.—This new species is the most noble in its appearance of any we have seen. Each leaf being about six inches long, of a dark green. The flowers are of a purple-crimson colour. It is a very desirable plant for the greenhouse.

ACACIA CULTRIFORME.—This plant has a most beautiful appearance even without a flower, but it gives an additional beauty to it when loaded with its clusters of fine orange and yellow flowers. It ought to be in every greenhouse or conservatory.

CHOROZEMA LATIFOLIA.—This is a fine addition to this interesting and pretty tribe of plants. The plant has not yet bloomed in this country that we have heard of. We saw it only in the collection of Messrs. Rollissons.

PLAN OF THE FLOWER GARDEN AT HILL PARK.—The seat of D. Baillie, Esq. with a list of plants grown in it, from Thompson's Treatise on Hot Water, &c. published by Groombridge.

Knowing that every thing appertaining to Floriculture will be acceptable to our readers, we have extracted from that valuable little treatise of Mr. Thompson's, (late Gardener to the Duke of Northumberland), on the constructing and heating of Greenhouses, &c. the accompanying plan of a



Flower Garden, designed by Mr. Drewett, Gardener to David Baillie, Esq. of Hill Park, with a list of plants recommended by him, for the ornamenting of flower gardens on Similar plans.

We are induced to notice Mr. Drewett's plan and mode of embellishing Hill Park Flower Garden, from the recollection of his having spent many years in the Royal Botanic Garden, at Kew, and from his long experience as a practical man, both in this country and on the continent. We with great confidence direct the notice of our readers to Mr. Drewett's system of furnishing beds in flower gardens, it being the opinion of a good practical gardener, of long and great experience.

We shall feel greatly obliged by our correspondents favouring us, from time to time, with any interesting plans for flower gardens, with lists of plants and directions for management.

Names of Plants grown in Hill Park Flower Garden.

No.	No.
1. <i>A nagallis</i> Monelli	white and other light coloured <i>Petunias</i>
2. <i>Anagallis grandiflora</i>	17. <i>Fuchsia globosa</i> and <i>Delphinium sinensis</i>
3. Scarlet geraniums and <i>Delphinium grandiflora</i>	18. <i>Oenothera Drummondii</i> and <i>Phlox cordata</i>
4. <i>Verbena Drummondii</i> and <i>Antirrhinum major</i>	19. <i>Petunia phyllicalis</i> and <i>Aster amelloides</i>
5. <i>Verbena melindris</i> and double white <i>Antirrhinum</i>	20. <i>Petunia phœnicia</i> and <i>Hydrangeas</i>
6. <i>Calceolaria viscosissima</i> , and double white <i>Lillies</i>	21. Variegated leaved scarlet <i>Geranium</i> , and <i>Delphinium grandiflora</i> .
7. <i>Fuchsia Thomsonia</i> and <i>Delphinium Barlowii</i>	22. <i>Oenothera missouriensis</i> and <i>Mesembryanthemum floribundum</i>
8. <i>Lantana Sellowii</i> and <i>Verbena aubletia</i>	23. <i>Phlox Drummondii</i> and <i>Petunia gracilis</i>
9. <i>Verbena Arranana</i> and <i>Elscholtzia, crocea</i>	24. <i>Oenothera Drummondii</i> and <i>Campanula latifolia</i>
10. <i>Verbena Tweediana</i> and <i>Lobelia lutea</i>	25. <i>Calceolaria majoriana</i> and <i>Calceolaria integrifolia</i>
11. <i>Lobelia erinus</i> and <i>Antirrhinum caryophylloides</i>	26. <i>Phlox reflexa</i> and prince of Orange <i>geranium</i>
12. <i>Crassula coccinea</i> and <i>Heliotropium peruvianum</i>	27. <i>Tigridia pavonia</i> and <i>Nolana atriplicifolia</i>
13. <i>Verbena aubletia</i> and <i>Mesembryanthemum spectabile</i>	28. <i>Delphinium grandiflora</i> and <i>Oenothera taraxifolia</i>
14. <i>Mesembryanthemum blandum</i> and <i>Petunia intermedia</i>	29. <i>Gladiolus psitticinus</i> and <i>Verbena Lambertia</i>
15. <i>Oenothera macrocarpa</i> and <i>campanula garganica</i>	30. <i>Brighton scarlet geranium</i> and <i>Oenothera macrocarpa</i>
16. Double scarlet <i>Lychnis</i> and new	

SEALEY'S QUEEN VICTORIA PINK.—Noticed in the August Number, was, in consequence of wrong information sent us, miscalled Tealey's Queen Victoria. (Ed.)

FLORICULTURAL CALENDAR FOR DECEMBER.

PLANT STOVE.—Roses, Honeysuckles, Jasmines, Persian Lilacs, Azaleas, &c. required to bloom from January, should be brought in early in the present month, the plants should be placed at first in the coolest part of the house, never allow them to want water. Pots or boxes containing bulbous

rooted flowering plants as Hyacinths, Narcissuses, Persian Irises, Crocuses, &c., should occasionally be introduced so as to have a succession of bloom. All stove plants will require occasionally syringing over the tops in order to wash off any accumulated dust from the foliage. Cactus plants that have been kept out of doors or in the greenhouse, should occasionally be brought into the stove for flowering.

GREENHOUSE.—As much fire as will barely keep out frost will be necessary and for the purpose of drying up damp arising from foggy nights, or from watering; all possible air should be admitted in the day time, but mind to keep the plants from damage of frost. Chrysanthemums will require a very free supply of air, and a good supply of water; by the end of the month many will be going out of bloom, such should be cut down and if any kind be scarce, the stalks may be cut in short lengths and be struck in heat, always cut the lower end of the cutting close under the joint. If greenhouse plants require watering, or syringing, over the tops, let it be done on the morning of a clear day when air can be admitted, and towards evening a gentle fire heat should be given.

FLOWER GARDEN.—Be careful to protect beds of, what are technically called, Florists Flowers, should severe weather occur. Calceolarias that were cut down and repotted last month will require attention, not to water too much or they will damp off, keep them in a cool and airy part of the greenhouse or pit. Auriculas and Polyanthes will require plenty of air in fine weather, and but little water; the like attention will be required to Carnations, Pinks, &c., kept in pots. Dahlia roots should be looked over to see if any are moulding or likely to damage, let the roots be dry before they are laid in heaps. Newly planted shrubs should be secured, so that they are not loosened by the wind. The pots of Carnations and Picotees should be placed in a situation where they may have free air, and be raised above the ground; if they are under a glass case, it will be much better than if exposed to the wet and severity of the winter, or many will, in all probability, be destroyed. Where it is desirable to leave patches of border flowers undisturbed, reduce them to a desirable size by cutting them round with a sharp spade. When it is desirable to have a vigorous specimen, it is requisite to leave a portion thus undisturbed. Ten week stocks, and mignonette, in pots for blooming early next spring to adorn a room or greenhouse, must not be overwatered, and be kept free from frost. A cool frame, well secured by soil or ashes at the sides, and plenty of mats or reeds to cover at night will answer well. Tender evergreens newly planted, would be benefitted by a little mulch of any kind being laid over roots. During hard frosts if additional soil be required for flower beds, upon grass lawns, advantage should be taken to have it conveyed at that time, so that the turf be not injured by wheeling.

REFERENCE TO THE EMBELLISHMENTS.

IPOMEA MAGNIFLORA.—Seeds of this very fine flowering species were sent to a Lady of this Country from India, a seed of which was very obligingly sent us. We shall give some particulars respecting it in our next number, having been sent too late for the present one. (Editor.)

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