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Verbena teucrioides.



Malva cretica.



Salvia pratensis



THE
FLORICULTURAL
CABINET,
AND
FLORIST'S MAGAZINE.

Conducted by

Joseph Harrison.

Editor of the

GARDENER'S RECORD,

&c. &c.



J. & J. P. Perkins

THE
FLORICULTURAL
C A B I N E T,
AND
FLORISTS' MAGAZINE.

JANUARY TO DECEMBER, 1839.

VOLUME VII.

CONDUCTED BY MR. JOSEPH HARRISON,

NURSERYMAN,

DOWNHAM NURSERY,

NORFOLK.

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PREFACE.

It was with feelings of a most grateful character we presented the former Volumes of the Floricultural Cabinet to our Subscribers ; the continued, and increased support we have received during the course of conducting the present Volume, we are deeply sensible, lays us under additional obligations ; to say we feel thankful to our friends for the support afforded us, does not adequately express our feelings of gratitude ; we will however, by our utmost exertions, endeavour to prove it by doings in our next volume, having made arrangements for its improvement.

In the present volume we have acted upon the principle we set out with, to admit nothing into our pages but what we judged would be really useful to our readers, such will be our aim in future. In accomplishing our object we have been liberally supported by the communications of our friends, grateful to them for the past, we very respectfully solicit their continued aid.

During the past year we have observed that *Flower Gardening* has rapidly progressed, and the amusement of Floriculture has become a dominant passion in every part of Britain ; we rejoice in it, it is in strict accordance with our very ardent wishes as tending to the happiness of man, because Floriculture is not only amusing but beneficial ; it brings reason and observation into operation ; it is favourable to serious meditation ; it exercises the fancy in innocent and elegant occupation ; and braces the system by its beautiful tendency. Kings, Queens, Princes, and Nobles, have, and still do, stamp additional dignity

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upon it by seeking recreation in its pursuit. To the young, we are fully persuaded, it is of lasting importance, it attaches them to home, and casts a charm over the place dedicated to floricultural pursuits, and gives them tastes and feelings which are usually retained through life. That our view of it, is in unison with the most intelligent of our own sex, we make our boast of, but more especially do we congratulate ourselves, when we find they are in accordance with the Ladies of our Country. So much is Floriculture held in esteem by the female sex, that amongst the many accomplishments which adorn them, a love of it is now considered a necessary one.

Its pursuit is now become so general, that it extends nearly to every cottage where it is practicable, and reaches to every Palace, and affords its votaries by its productions, what has been said to be, the purest of human pleasures. Of its enjoyment we have largely participated, and we are thus induced to attempt to contribute to its promotion, that others may more largely share with us of its benefits. To accomplish this, our future exertions will be uniformly directed, and we have reason to anticipate successful results, because by the operation of a supreme hand.

“ For us kind nature wakes her genial power,
Suckles each herb, and spreads out every flower !
Annual for us, the Grape, the Rose renew,
The juice nectarious, and the balmy dew ;
For us, the mine a thousand treasures brings,
For us, health gushes from a thousand springs.”

Downham, Nov. 20th, 1839.

THE
FLORICULTURAL CABINET,

JANUARY, 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON THE JASMINE.

BY CLERICUS.

THIS sweet emblem of amiability is always acceptable wherever we meet it. It graces alike the lowly casement of the lone widow, and the proud parterre of the rich and gay: the bosom of the village lass, and the oriental vase of the saloon. Its modesty pleases, and its fragrance charms, in all situations; like those with whose happy dispositions and amiable manners seem to make them the bond of society, by the grace and facility with which they accommodate themselves to all situations and circumstances. The pretty face of the Jasmine flower is only surpassed in loveliness, by the fair whose countenance is brightened by amiability.

The common Jasmine Officinale, which grows naturally at Malabar, is registered in the Hortus Kewensis as a native of the south of Europe; but I am of opinion that it did not leave the East until the taking of Constantinople by the Turks, whose fondness for flowers would induce them to transport it to the land they conquered in 1453. It certainly would not have passed unnoticed by Pliny, and other ancient authors, had it either grown naturally, or been introduced to that country previous to their

time. Dioscorides is the only Greek author that notices it; and as he has given no description of the plant or flower, but only tells us that the Persians obtained an oil from a white flower, with which they perfumed their apartments during their repasts, it is probable he only became acquainted with the jasmine during his attendance as a physician on Antony and Cleopatra, in Egypt, whose unbounded luxury would naturally call this essence from the land of odours.

At what time this plant first perfumed the British atmosphere, is uncertain, Mr. Aiton says, in 1548; but we consider it to be much longer acquainted with our soil, as it seems to have been so common in the time of Gerard as to have been considered a native plant by some persons. This excellent author says, "Jesemin is fostered in gardens, and is used for arbors and to cover banquetting houses in gardens; it groweth not wilde in Englande, that I can vnderstande of, though master Lyte be of a different opinion: the white jasmine is common in most places of Englande."

If we may believe a Tuscan tale, we owe our thanks to Cupid for the distribution of this pretty shrub. We are told that a Duke of Tuscany was the first possessor of it in Europe, and he was so jealously fearful lest others should enjoy what he alone wished to possess, that strict injunctions were given to his gardener not to give a slip, nor so much as a single flower, to any person. To this command the gardener would have been faithful, had not the god of love wounded him by the sparkling eyes of a fair but portionless peasant, whose want of a little dowry and his poverty alone, kept them from the hymeneal altar. On the birth day of his mistress the gardener presented her with a nosegay; and to render the bouquet more acceptable, he ornamented it with a branch of jasmine. The young nymph wishing to preserve the bloom of this new flower, put it into fresh earth, and the branch remained green all the year, and in the following spring it grew, and was covered with flowers; and it flourished and multiplied so much under the maiden's cultivation, that she was able to amass a little fortune from the sale of the precious gift which love had made her; when with a sprig of jasmine in her breast, she bestowed her hand and her wealth on the happy gardener of her heart. And the Tuscan girls, to this day, preserve the remembrance of this adventure, by invariably wearing a nosegay of jasmine on their wedding day; and they have a proverb which says, that a young

girl, worthy of wearing this nosegay, is rich enough to make the fortune of a good husband.

Let us then cultivate more abundantly what love has scattered so happily; for the supple and pliant branches of the jasmine accommodate themselves to numerous situations in the shrubbery:

“ Here jasmines spread the silver flower,
To deck the wall, or weave the bower,”

They should be woven into the trellised arch or alcove, climb the palisades, rest on the branches of the broad-leafed laurel, cover the dead wall, and run gaily wild over the shrubs of the wilderness walks; whilst obedient to the scissars of the gardener, they are formed into bushy shrubs and little trees, for the near approach to the dwelling, where in the morning and evening their star-topped tubes send forth a shower of odours that embalm, refresh, and purify the surrounding air.

“ Many a perfume breathed
From plants that wake when others sleep,
From timid jasmine buds, that keep
Their odour to themselves all day,
But, when the sun-light dies away,
Let the delicious secret out
To every breeze that roams about.”

T. MOORE.

From the tube of this eastern flower, the bee extracts its most exquisite honey; and the painted butterfly is never seen to more advantage, than when resting on the delicate petals of the white jasmine.

When the jasmine was first introduced into France, it was supposed to require all the heat they could give it; it next occupied a place in the orangery, and at length exposed to the open garden, where it thrives as freely as a native plant, and still holds the situation of a favourite with the Parisian belles, and is always the most saleable bouquet that is brought to the French market.

We have often been astonished that our cottagers, who possess little gardens, should not cultivate flowers for sale, particularly the jasmine, which is so hardy and so easily propagated; and with which they might even form their fences, or suffer it to run over their hedges, without taking away any of their potatoe ground.

In the market they would find one bunch of jasmine flowers would bring them as much money, as three cabbages or a bunch

of turnips. As long back as the time of Charles the Second, Evelyn says, "Were it as much employed for nosegays, &c. with us, as in Italy and France, they might make money enough of the flowers; one sorry tree in Paris, where they abound, has been worth to a poor woman near a pistole a year." And at the present time a great deal of money is made by the nurserymen in that neighbourhood, who trim them up with a head on a single stem, and then pot them, and send them to the flower market covered with blossoms, whereby they soon find customers amongst those who are wise enough to prefer familiar beauty to costly rarity, and you see it there flourishing equally in the cobbler's window and the palace balcony. The Turks cultivate the jasmine for the sake of the branches, of which the tubes of their summer tobacco-pipes are as invariably made, as those for the winter are formed of the cherry-tree.

As the jasmine does not ripen its seed in our climate, it is increased by laying down the branches, which take root in one year, which may then be cut from the old stock, and planted where they are to remain. It is also propagated by cuttings, which should be planted early in the autumn, and the earth covered with sand, ashes, or saw dust, to keep the frost from entering the ground.

In situations where it is necessary to prune this plant, it must never be done until the end of March, or when the frost is past. It should also be observed, that the flowers are always produced at the extremity of the same years' shoots, which are often cut off in the summer, by those that are ignorant of its nature; and thus the plant is deprived of the power of treating us with its fragrant flowers.

The common yellow jasmine, *J. fruticans*, is a native of the south of Europe, yet it did not reach this country so early as the white jasmine, as Gerard tells in 1597, that it had not been seen in this country; and Mr. Martin is therefore mistaken in his statement, that it was cultivated by Gerard in that year.

Parkinson tells us, in 1629, that the yellow jasmine, "will well abide in our London gardens, and any where else."

This shrub is easily increased by suckers or layers, but being deficient of odour, it is much less cultivated than formerly. Sheep eat the leaves and young branches of this shrub with great avidity.

The Italian yellow jasmine, *J. humile*, produces larger flowers than the common yellow jasmine, and is therefore preferred in

the shrubbery; where it requires a south aspect and sheltered situation. It was at first cultivated with us in 1730, but its native soil still remains unknown; it acquired its name from being sent out of Italy with orange trees, &c.

The ancients employed the berries of the jasmine, in their pretended divinations; and the oil obtained from the flowers was used in the baths of females.

CLERICUS.

ARTICLE II.

A SELECT LIST OF THE MOST BEAUTIFUL FLOWERING GREENHOUSE PLANTS, BY W.J.C.

SPRINGFIELD, NEAR CHELMSFORD, ESSEX.

I HAVE often remarked in most of the Numbers of the '*Floricultural Cabinet*' a vast amount of *Queries* unanswered, in several of which, I took great interest; but my hopes have been disappointed by their being neglected and passed over without any notice taken of them. Now, I think one of the best and surest plans to increase the circulation of the '*Cabinet*,' is, freely and punctually to answer every *Query* put in the preceding Number; by such means, the knowledge of the cultivation will be more diffused, and consequently, the love of floriculture will increase in an equal ratio with the success of the cultivator.

To remedy this defect, I shall at intervals inform your numerous readers of the mode I have adopted with respect to several *Queries*, that is, if you think it worth insertion; mind, I do not pretend to a thorough acquaintance with floriculture in general, only upon a few things I have been singularly successful.

I am glad you have adopted the plan of noticing the various plants in the hothouses and greenhouses round the metropolis, it gives your numerous readers an early and useful account of the latest and most beautiful productions, which increases amongst amateurs, the desire of adding to their collections plants of approved beauty; by the continuation of this plan, and adopting my suggestions respecting the *Queries*, you will oblige me, and a host of your readers.

For the information of your readers I enclose a select list of greenhouse plants, the beauty of which I can answer for, having

them in my possession, and exhibited at various shows : against those which require particular treatment I have marked a number, upon referring to the bottom of the list it will be explained.

W. I. C.

List of Greenhouse Plants.

Acacia cordata	Bouvardia triphylla
“ pubescens	Brachysema latifolia
“ armata	Burchillia capensis
Alstrameria tricolor	Burtonia conferta(4)
“ pelegrina	Cactus speciosissimus
“ simsii	“ Jenkinsonia
“ aurea	“ Ackermania
“ psittacina	Calothamnus quadrifida
Amaryllis Johnsonia(1)	Chorizema cordata(5)
“ crocea vitalina(1)	“ ovata(5)
“ speciosa(1)	“ Henchmanii(5)
“ vittata(1)	Cistus creticus
“ formosissima(1)	“ speciosa
Anagalis monelli	Clianthus puniceus
“ grandiflora	Clerodendron speciosissimum
“ Philipsii	Crassula coccinea
Anomatheca cruenta	“ falcata
Anthocercis viscosa(2)	“ versicolor
Azalea indica alba(3)	Crotolaria elegans
“ Phoenicea(3)	Crowea saligna
“ Viscosa(3)	Cyrilla pulchella
Baurea rubioides	*Cyclamen coum
Beaufortia decussata	“ persicum
Berberis dulcis	“ europeum
Baronea pinnata	“ vernum
“ serrulata	Cytisus racemosus
Bossicea linophylla	Daphne odora
“ rufa	“ Cneorum

(1) Must be kept near the glass, and have rest during winter months.

(2) Will not bear much water.

(3) Require the tops to be near glass, which will cause them to bloom well, water freely.

(4) Near the side panes of glass in the house, so as it may have plenty of light and air.

(5) In the warmest part of the greenhouse, and must be kept from currents of air, also as near the side panes as possible.

*There is another Cyclamen still more beautiful than the above, called, C. repandum, but procured with great difficulty.

Daviesia acicularis(6)	Hoya carnosae
Deutzia scabra(7)	Indigofera australis(10)
Diosma umbellata	Kennedia coccinea prostrata
“ imbricata	Linum flavum
“ ceratoides	“ trigynum
Durantia Elisii	Lautana sellowii
Erythra cristata galli	“ mutabilis
“ laurifolia	Lechenaultia speciosa(11)
Epacris variabilis(8)	“ formosa(11)
“ impressa(8)	Loasa lateritia
“ nivalis(8)	Lychnis fulgens
“ grandiflora(8)	“ coronata
Eutaxia myrtifolia	“ Bungeana(12)
Fuchsia fulgens	Magnolia fuscata
Gardoquia Hookerii	Mannettia glabra
“ multiflora	Mahernia pinnata
Galphimia glauca	Metrosideros florabundus(13)
Genista canariense	Nierembergia Philicaulis
Glycine bimaculata	“ intermedia(14)
Gladiolus florabundus	Pittosporum Tobira
“ colvillii	Primelea decussata
“ cardinalis	Polygala oppositifolia
“ psittacinus	“ grandiflora
Gloxinea cautescens	“ speciosa
“ speciosa	Prostranthera violacea
“ alba	Puttenea stricta(15)
Grevillea buxifolia (<i>curious</i>)	Rhexia marinana
Hibbertia volubillis	Ruellia formosa(16)
Hovea celsi (9)	“ ciliata
“ purpurea(9)	Sedum Sieboldii

(6) Small pot and plenty of water.

(7) Almost hardy.

(8) All the Epacridæ require plenty of water at all times, in potting them very sandy peat must be used, chopped fine and not sifted.

(9) Plenty of water.

(10) Plenty of water.

(11) I have been very successful with these flowers, they must be kept as close to the glass as possible, not watered over the foliage, and plenty of light, not too much water, potted in very sandy peat chopped.

(12) Must be grown in rich leaf-mould with old saw-dust, and potted from large 48's to 32's, to 24's, and lastly, to 12's; mine was 9 feet high, with fifty-seven blossoms on.

(13) The smaller the pot the more abundantly will it flower.

(14) Must be kept separately as it is inclined to be infested with the Aphis.

(15) Small pot, plenty of water.

(16) Hottest part of the greenhouse, free from draft, and use but little water during winter.

Selago Gilliesii	•	Swansonia coronillæfolia rosea
Sollya heterophylla		“ “ alba
Solanum spinosum		Tecoma australis
Springelia incarnata(17)		“ capensis
Stenochilus maculatus		Templetonia glauca
Streptocarpus Rexii		Tropeolum tricolorum
Sutherlandia frutescens		

N.B. Should any of your readers require the color of the flowers, I will send you a list as soon as I have leisure; my next communication will be on the Cold Pit, one of the most useful structures known, I have one on a principle of my own in which I have placed my Camellias, but as it is an experiment, I shall not notice it until I see how the plants have weathered the winter.

W.I.C.

ARTICLE III.

ON RAISING SEEDLING HEARTSEASE.

BY A. E., HOXTON.

I beg leave to submit to the readers of the Floricultural Cabinet the mode by which I have raised seedling Heartsease. In saving the seed it is quite necessary that it should be gathered from first rate flowers, and that no common or small flowers, should be grown in the garden, or if possible near the plants from which the seed is to be gathered. The pods containing the seed must be taken from the plants, when they have grown to their full size, and before they are quite ripe, spread on a large cloth and placed it in a sunny aspect, as if you waited till they were quite ripe, the seed vessels fly open, and disperse the seed, so that it is quite necessary that the cloth on which you spread the seed to ripen should cover a good space, otherwise you will lose half your seed. It will be quite ripe in August and September. The end of January I make a hot bed with stable manure, and place on it a small one-light frame; when the heat has declined, I put a layer there inches deep of fresh loam and rotten leaves, (of each an equal part) well mixed together, and then sow the seed; when they

(17) Plenty of water—near the glass—peat with sand chopped fine.

come up I give them all the air I can in fine weather, keeping the same shut in frosty weather, and at night.

In May, they have got large enough to plant out. This season I planted under a row of standard apple and pear trees (having first dug in some decayed vegetable mould) and though under the shade of the trees, I have had all the autumn, and to the present time, one mass of bloom, bidding defiance to the season, and hardly what may be called an indifferent flower, and among them, at least a dozen of those of first rate.

I grow a great profusion of border flowers, but the first flower that strikes the attention of any visitor, and particularly females, is the Heartsease; to me, the watching of the first bloom, with the expectancy of rearing something new, creates a much greater pleasure than viewing a bed of known good flowers.

If any flower is required to show what can be done by cultivation, let it be the Heartsease; take the plant growing in its natural wild state on the West of England mountains, and compare it with the present garden flower. It is my opinion that the cultivation of this beautiful plant will be greatly improved, and in a few years will far surpass those of the present day.

A. E.

ARTICLE IV.

ON THE FOOD OF PLANTS

BY TERRA.

WE are lost in wonder and astonishment when we contemplate the means by which plants are supported and the different soils that are requisite to bring the different species to perfection, some delighting to grow in rich soils, others on barren wastes, some in warm countries, others in the higher latitudes, all receiving that nourishment which is best suited for the propagation of their species, and in those places that are best adapted to their nature. When we consider a plant as an object possessing vegetable life, that it is organized, possessing an apparatus, by means of which its several functions are exercised; that light, air, and moisture, are essential to its existence, and that no sooner is life extinct, than the laws of chemistry, which hitherto were over-ruled by that principle, exert their influence;—it is decomposed, and having

passed into its original elements, is fitted for becoming the support of other organized beings.

In these respects plants bear a close analogy to animals; like them too, they are possessed of that inconceivable power, by which means they are enabled to assimilate, or change into their substance, a variety of extraneous matter. In common with animals, they have the power of increasing their species: and many of them possess spontaneous motion, or irritability. Indeed, the lowest link in the chain of vegetable beings, approaches so closely to that which holds the same in the animal kingdom, that a well defined line of demarkation has in vain been sought for.

It has occupied the attention of philosophers for a long period to discover the real nature of the food of plants, nor to this day is the problem satisfactorily solved. It would, however, lead me far beyond the limits which I have proposed to myself in this outline to notice the conflicting opinions of those who have investigated this difficult subject; let it suffice to observe, that the most generally received is, that water, together with carbon, (the base of charcoal,) either in solution, or combined with an acid gas, constitute the principal food of vegetables; and that the application of manure, consisting of decaying vegetable and animal matter, to the soil, is the only means within our power, of supplying the plant with the latter of these essential principles.

The earths, which are only finely divided flint, limestone, alumine, or earth formed from clayslate and analogous rocks, and a few others of less common occurrence, do not constitute any portion of the food of plants, the use of them being merely to afford a medium in which the proper food should be administered; and their fitness for the purpose, depends both on the proportion in which they are combined, and the state of division which they have attained. Thus, a soil is composed principally of silex, that is, earth of flints, particularly if some portion of it be not in a state of minute division, will not be sufficiently compact to retain for any length of time, a proper degree of moisture. A soil consisting of nineteen parts out of twenty of siliceous sand, has been found to be perfectly barren, yet so small a portion of finely divided matter, as one part in twelve, it is asserted, is sufficient to adapt it to cultivation. The qualities whereby this sand may be recognised, are, that it does not effervesce in acids, that it is

harsh when rubbed between the finger and thumb, and it cuts glass if rubbed against it.

Alumina, so called, as constituting the base of alum, occurs generally in the form of stiff retentive clay; without a certain proportion of sand, it will scarcely admit water, and consequently an unfit medium for vegetables; but it does not occur in a state of absolute purity and minute division, and though it frequently requires an additional portion of sand, to render it a proper stage for vegetables, but I am not aware of its being absolutely barren. The agricultural character given of this clay, in Conybeare and Phillips's invaluable work on the Geology of England and Wales, is, that "it chokes the plough, and it rolls before it, in a broken and muddy state; after rain, it is not slippery, but adheres to the shoes; after drought, it presents cracks nearly a yard in depth and several inches in breadth. According to Townsend, it is sometimes called wood grower's land, because, although it is productive of the finest elm, oak, and ash timbers, it requires chalk before it can produce good corn; yet on Epping forest, Windsor forest, and much of the New Forest, the oaks are finest where clay is mixed with sand." It does not effervesce in acids, and when in a state of minute division, is unctuous and impalpable to the touch. It is known by the terms, argillaceous, clay, stiff retentive clay, &c.

Calcareous earth results from limestone or chalk; in the former case, the soil is always mixed with other ingredients, and is naturally suited to agricultural purposes, hence the extraordinary fertility of many of the Irish counties. In the latter, it is occasionally very indifferent even in England, but on the continent, according to Cuvier and Brongniart, "sterility is one of its most decided characters, and Champagne is mentioned, as being, in some cases, absolutely uninhabitable." It is easily distinguished from the last, by its effervescing in acids. Besides these, there are six other enumerated by chemists, only one, (magnesia) is found in sufficient quantity to modify in any considerable degree the general nature of the soil.

It therefore appears that pure silica, alumina, or lime, are not capable of supporting vegetation. It is the opinion of an eminent French chemist, that the most fertile soils will be generally found to consist, as nearly as possible of four parts of clay, three of sand, two of calcareous earth, and one of magnesia.

TERRA.

ARTICLE V.

ON CHINESE GARDENS.

(Continued from Vol. VI. page 169.)

WHERE the ground is extensive, and many scenes are introduced they generally adapt each to one single point of view; but where it is confined, and affords no room for variety, they dispose their objects so, that being viewed from different points, they produce different representations; and often such as bear no resemblance to each other. They likewise endeavour to place the separate scenes of their compositions in such directions as to unite, and be seen all together, from one or more particular points of view, whence they may be delighted with an extensive, rich, and variegated prospect.

They take all possible advantage of exterior objects, hiding carefully the boundaries of their own grounds; and endeavouring to make an apparent union between them, and the distant woods, fields, and rivers; and where towns, castles, towers, or any other considerable objects are in sight, they artfully contrive to have them seen from as many points, and in as many various directions as possible. The same they do with regard to navigable rivers, high roads, foot-paths, mills, and all other moving objects, which animate and add variety to the landscape.

Beside the useful European methods of concealing boundaries by ha-has, and sunk fences, they have others still more effectual. On flats, where they have naturally no prospects of exterior objects, they enclose their plantations with artificial terraces, in the form of walks, to which you ascend by insensible slopes; these they border in the inside with thickets of lofty trees and underwood; and on the outside, with low shrubberies, over which the passenger sees the whole scenery of the adjacent country, in appearance forming the continuation of the garden, as its fence is carefully concealed amongst the shrubs that cover the outside declivity of the terrace.

And where the garden happens to stand on higher ground than the adjacent country, they carry artificial rivers round the outskirts, under the opposite banks of which, the boundaries are concealed among trees and shrubs. Sometimes too the use of strong wire fences, painted green, fastened to the trees and shrubs that border the plantations, and carried round in many irregular directions, which are scarcely seen till you come very near them;

and wherever ha-has, or sunk fences are used, they always fill the trenches with briars and other thorny plants to strengthen the fence, and to conceal the walls, which otherwise would have an ugly appearance from without.

In their large gardens they contrive different scenes for the different times of the day; disposing at the points of view, buildings, which from their use, point out the proper hour for enjoying the view in its perfections: and in their small ones, where, as has been observed, one arrangement produce many representations, they make use of the same artifice. They have beside, scenes for every season of the year; some for winter, generally exposed to the southern sun, composed of pines, firs, cedars, evergreen oaks, phillyreas, hollies, yews, junipers, and many other evergreens; being enriched with laurels of various sorts, laurestinus, arbutus, and such other plants and vegetables as grow or flourish in cold weather; and to give variety and gaiety to these gloomy productions, they plant amongst them, in regular forms, divided by walks, all the rare shrubs, flowers, and trees of the torrid zone; which they cover during the winter, with frames of glass disposed in the forms of temples, or other elegant buildings.

Those who are acquainted with the natural history of China know that it produces almost all the plants and vegetables cultivated in Europe with many others, that are not to be found even in the very best hothouses, amongst which are several evergreens, as the Tse-song, the leaves resemble both the juniper and cypress, mixed in a very beautiful manner; the Mo-lyen, producing large flowers, like lillies, some yellow, some red, and some white, which open in December, and flourish during the greater part of the winter; the La-mew, a kind of bay, producing fine yellow flowers, that appear in winter, with many others, which as they cannot here be obtained, it is superfluous to enumerate.

What they call their conservatories, are warmed by subterranean fires, and afford a comfortable and agreeable retreat, when the weather is too cold to walk in the open air.

All sorts of beautiful melodious birds are let loose in them; and they keep there, in large porcelain cisterns, placed on artificial rocks, gold and silver fishes; with various kinds of the Lyen-wha, which is a water-lilly, much esteemed in China. In the province of Kiang-si, whose lakes are covered with it, in a very beautiful manner, and it is cultivated by all the great lords in ponds and

cisterns, for the decoration of their courts and gardens. The flower resembles a tulip, and is either yellow, white, violet, crimson, or streaked with various colours; its smell is very pleasing, and the fruit which produces a kernel, being accounted a great restorative and strengthener, is given in China as a medicine, after severe fits of illness; the leaves are large, of a circular form, and brilliant green colour; they float upon the surface of the water, they have a great many other aquatic plants and flowers. They also raise in them strawberries, cherries, figs, bananas, li-chis, grapes, apricots, and peaches, which cover the wood-work of their glass frames, and serve for ornament as well as use.

The fruit of the Li-chi resembles the berry of the arbutus, in every thing but size; its being as large as a pigeon's egg, and full of a juicy pulp, that in flavor, far surpasses any other fruit whatever.

Their scenes of spring likewise abound with evergreens, interspersed with lilacs of all sorts, laburnums, limes, laraires, double blossomed thorn, almond and peach trees, with sweet brier, early roses and honey-suckles. The ground, and verges of the thickets and shrubberies, are adorned with wild hyacinths, wall-flowers, daffodils, violets, primroses, polianthus, crocus, daisies, snowdrops, and various species of the iris; with such other flowers as appear in the months of March and April, and as these scenes are also scanty in their natural productions, they intersperse among their plantations, menageries of all sorts of tame and ferocious animals, and birds of prey: aviaries and groves, with proper contrivances for breeding domestic fowls; decorated dairies, and buildings for the exercise of wrestling, boxing, quail-fighting, and other games known in China. They also contrive in the woods large open recesses for military sports; as riding, vaulting, fencing, shooting with the bow, and running.

(To be continued.)

ARTICLE VI.

REMARKS ON THE ROSE.

(Continued from Vol. VI. page 286.)

THE double yellow rose, sulphurea, was unknown to us in 1597; but the single yellow brier was then common, as we find by Gerard.

The single yellow rose, *lutea*, blossoms freely in most situations, excepting in the vicinity of London, or other confined spots.

The double yellow rose, where it blossoms freely, is one of the most elegant flowers that any country has produced, and had nature bestowed on it the perfume that makes the Provence rose so delightful, it would be pronounced the acme of Flora's skill.

The outer petals are of the most delicate golden yellow, whilst the inner ones are often of a tint approaching to copper colour, and so delicately transparent, as even to surpass the carnation poppy in texture; and although the flower is exceedingly double, yet the petals hang with a looseness and elegance that cannot be conceived without beholding it. Van Os, the elder, has been the most happy among painters in giving that transparent and crumpled effect to this rose, which Von Huysum himself could never perfectly accomplish. Sydenham Edwards has left a faithful representation of the double yellow rose, which is given in the Botanical Register.

We remember this species of rose much more common than at present growing in open situations, and we have generally observed that it has prospered best in an eastern aspect, where buildings or shrubs, have sheltered it from the mid-day sun. It loves a light soil, of a gravelly or sandy nature, but cannot endure a confined or wet situation. We have seen it in great perfection in a garden at Petersfield, in Hampshire; and it prospers and flowers very freely in some parts of the South Downs, particularly at Findon in Sussex. It seems much less affected by the cold than by low and damp situations; and we do not recollect having met with it in flower except in spots open to the east, which is generally considered the most pernicious to plants. The foliage of the double yellow rose is small, and of a beautiful bluish green, very light on the under side, whilst the stalks being of yellow-green, form a delightful graduation to the golden flower.

THE EVER BLOWING CHINA ROSE.—*Semperflorens*.

When this species of rose was first introduced, in 1780, it was considered to be so delicate a plant, that it was kept constantly in the stove, and the smallest cuttings were sold for many guineas

each. It was soon found to thrive in a common greenhouse, where it was found to blossom the whole winter, to the great admiration and amazement of all who could obtain sight of this far-fetched flower. As it was found to be so easy of propagation, in a few years every country casement had the pride of sheltering this Chinese prodigy, until the cottager for want of pence to purchase flower pots, planted it in the open ground; when, as if it gloried to breathe the air of this land of liberty, it soon surpassed in strength and beauty all the inmates of the "gardens, in which art supplies the fervour and the force of Indian skies."

We have no plant on record, either of utility or beauty, that has spread itself so rapidly over the whole country as this rose has done in our own age. It now climbs up to look into the attic windows of those very houses where we once saw it peep out at the lower casement; and it is not uncommon to see its petals blush through a veil of snow, in the month of December; a thing so unusual formerly, that no longer back than the year 1800, Mrs. Mary Robinson wrote the following verses on seeing a rose in flower at a cottage door on Egham-hill, on the 25th of October of that year.

" Why dost thou linger still, sweet flower?
 Why yet remain, thy leaves to flaunt?
 This is for thee no fostering hour.
 The cold wind blows,
 And many a chilling, ruthless shower,
 Will now assail thee, beauteous rose!

Although it is acknowledged that few plants contribute more agreeably to ornament our shrubberies in the autumnal months than this Chinese rose, yet we would not wish it to exclude or lessen the cultivation of the older and more beautiful species, but which, we fear, it has already done to a considerable degree. As the smallest cuttings of this rose will grow, we are not without the hope of seeing it creep into our hedge rows, where it would soon propagate itself both by suckers and seed; for it ripens its fruit in this climate, as perfectly as those of our native briars, and the hips of the Chinese rose are particularly ornamental, from their inverted pear shape, fine orange colour, and large size.

(To be continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

ANIGOZANTHUS FLAVIDA; var. **BICOLOR**. Two-coloured yellow-haired
Anigozanthus Bot. Reg. 64.

HÆMODOURACEÆ. HEXANDRIA, MONOGYNIA.

1. A handsome variety of *A. flavida*, which it much resembles in growth and shape, but is much superior to that kind, by the striking beauty of its colours, scarlet and green, which are so blended together as to produce a rich effect, which is rarely the case when the two beautiful colours in question are united in the same flower. We were favored a short time ago by a kind friend with a package of seeds collected in New Holland, and amongst them, we notice, are several species of this genus, which from the description attached, we are led to believe, are entirely new.

CATTLEYA GUTTATA; var. **RUSSELLIANA**. Lord E. Russell's spotted Cattleya. Bot. Mag. 3693.

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

2. This very beautiful variety of *C. guttata* was originally given by the Director of the Botanic Garden at Rio, to Lord Edward Russell, Captain in the Royal Navy, who introduced it into the collection of Woburn Abbey, where it blossomed for the first time in this country in August last. It is highly deserving of a place in every collection of select orchidæ. The flowers are five inches across, the petals are of a fine greenish brown, spotted with purple, and the lip of a beautiful delicate rose colour. Requires the same treatment as other species.

COLLINSIA HETEROPHYLLA. Variable-leaved Collinsia. Bot. Mag. 3695.

SCROPHULARINÆ. DIDYNAMIA ANGIOSPERMIA.

3. This species forms an improvement upon *G. bicolor*, on account of the blossoms being much larger, but in other respects, it bears a very great resemblance to that species. It was sent last spring by Mr. Buist from Philadelphia to the Edinburgh Botanic Garden. Seeds of it will, we doubt not, soon be offered to the public.

COMPARETTIA COCCINEA. Scarlet Comparettia. Bot. Reg. 68.

ORCHIDACEÆ. GYNANDRIA. MONANDRIA.

4. A very splendid epiphyte, and was introduced by Messrs. Loddiges' from Brazil. Doctor Lindley, however, conjectures some mistake is made in this, as he has received specimens which were collected in Xalapa. The blossoms are about the size of *Oncidium flexuosum*, but of a brilliant scarlet

colour. and have a very curious appearance from spurs, of about half an inch in length, produced from their sepals. Of this genus there are only at present three known species, all of them found growing upon trees in Peru ; it was named in compliment to professor Comparetti, of Padua, author of a Treatise upon Vegetable Physiology, &c,

DENDROBIUM SULCATUM. Furrowed Dendrobium Bot. Reg. 65.

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

5. Collected in India by Mr. J. Gibson, and forwarded to Chatsworth, in the collection at which place it bloomed in April last. It is a handsome species, producing yellow flowers, somewhat resembling *D. Griffithianum*. The culture required is similar to other species of this genus.

EPIDENDRUM BICORNUTUM. Two-horned Epidendrum. Paxton's Bot. Mag.

ORCHIDACEÆ. GYNANDRIA, MONOGYNIA.

6. A delicate and beautiful Epiphyte, possessing a delightful fragrance, and was first received into the Botanic Garden, Liverpool, several years ago. So long ago as 1833, we had a drawing taken from a plant that blossomed in the valuable collection at Wentworth House, where Orchidææ is cultivated to such a degree of perfection as we rarely see. The blossoms are about two inches across, of a delicate white colour, the base of the lip is yellow, spotted with pale rosy purple. Requires similar treatment to other species.

ÆSCHYNANTHUS GRANDIFLORUS. Great-flowered Æschynanthus. Pax. Mag., Bot.

CYRTANDRACEÆ. DIDYNAMIA, ANGIOSPERMIA.

7. This is another beautiful Epiphyte, introduced from India by Mr. John Gibbon, who found it growing abundantly at the base of the Khosea Hills in valleys remarkable for their humidity and shade. The flowers are of a brilliant red, produced in great profusion, and large clusters, which altogether render the plant a very desirable and ornamental object. It is best cultivated in reduced moss, with a little heath soil, potsberds, and plenty of drainage. When growing, it requires an abundant supply of water. When the growth is completed, it should be removed into a cooler situation, and kept comparatively dry, which will be inducive to much stronger blossoms the succeeding season.

NEW PLANTS.

TRICHOCENTRON IRIDIFOLIUM. Orchidææ. Received by Messrs. Lodiges' from Demerara. The plant is of a small habit, having pale yellow flowers, with a lip delicately streaked with dark yellow.

(Bot. Reg.)

ANNESLEA TOMENTOSA. This pretty flowering plant has recently been in flower at Mr. Knight's nursery, King's Road, Chelsea. The foliage of the plant is very similar to *Clanthus puniceous*, and has a very pretty appearance. The flowers are produced numerously, in large clusters at the ends of the shoots ; and having beautiful pink colored filaments, produces an interesting appearance.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

A SUBSCRIBER would be much obliged by receiving answers to the following questions:

1. Can any thing be done to prevent the flower buds of Camellias from dropping off? great attention has been paid with regard to air, soil, and watering.

(See excellent articles in former Numbers of the Cabinet on Camellias.)

2. Can heath cuttings be struck in a greenhouse; if so, when is the best time and manner of raising them?

(An article will be given next month upon it.)

What is the best remedy for grass that abounds with moss?

(Sprinkle fresh slacked lime liberally over it, and let it be brushed in with a besom, and the moss will be destroyed whilst the grass will be encouraged.—CONDUCTOR.)

Dec. 6th, 1838.

H.

A LIST OF SELF-COLOURED AURICULAS.—Will the Editor or some Reader of the Cabinet have the kindness to give me a list of the names, and any particular properties of some of the best self-coloured Auriculas.

AUDATE.

REMARKS.

CORBETT'S HYGROTHERMANIC APPARATUS.—A printed prospectus of this mode of heating has recently been inserted in our Advertising Sheet. It differs from all the various modes hitherto made public of heating by hot water, in circulating the fluid in open gutters instead of pipes. Hence it can only be applied in cases where the gutters can be conducted on a level; but the water may easily be carried over a door, on a siphon principle, or under it, on the principle of water always finding its level. The advantages of this mode, Mr. Corbett says, are cheapness, simplicity, and efficiency. Cheapness, because iron gutters are cheaper than iron pipes; simplicity, because water running in open gutters has less of mystery about it than water concealed in pipes; efficiency, because it produces a moisture heat than any other mode. It has been stated it would produce too moist a heat for many purposes, particularly in the autumn; but Mr. Corbett says that this is not the case, as it has been most fully verified where the plan has been in operation, as at Sir William Call, Bart., Whitford House, near Callington Cornwall; C. Thurtle, Esq., Stoke House, near Plymouth; and at Mr. Pon-
 tney's Nursery, Plymouth. There never can be a superabundance of moisture, provided the gutters are of a proper shape; but, should it be considered advisable at any time to prevent the escape of vapour altogether, this may at once be effected by placing along the top of the gutter any flat substance, such as slates, tin plate, &c.; the water never being in a boiling state, the vapour is not forced out, but will condense on any subject with which it comes into contact.

For forcing vines, pines, &c., it is admirably adapted; and, with broader and shallower gutters to produce more moisture, there is reason to conclude that this system will come into general use for the cultivation of cucumbers, melons, &c. For hot-house plants, and particular *Ochidææ*, gutters as broad or even broader than deep, are proved to be most suitable. For the green-house it will be of incalculable service. Every description of artificial heat without moisture has been found by sad experience to injure green-house plants, when hard weather has compelled its introduction. To many, and particular to Cape heaths, it is almost certain death; because the air in frosty weather, containing, perhaps, not one grain of moisture per cubic foot, and raised by fire to 40°, and sometimes even higher, becomes so intensely dry and oppressive, and acquires such an affinity for moisture, even at this low temperature, that the rapid absorption while the plants are in a dormant state causes their juices to be elaborated too quickly for their powers of secretion."

Not content with recommending his mode as the best of all modes for heating houses in which plants are grown, Mr. Corbett makes a long quotation from Dr. Ure's article published in the transactions of the Royal Society, and, with some variations, in the *Architectural Magazine*, vol. i. p. 161., on the effects of dry air on the officers engaged on duty in the long room of the Custom House, London; and he arrives at the following conclusion:—

"It is evident, then, that the great desideratum for heating apartments, &c., is, an apparatus capable of circulating, in any direction, and to any extent required, any quantity of artificial heat without the malaria of the stove and pipes, so as to maintain a genial warmth and wholesome ventilation throughout the building. Such a system is now placed before the public, capable of such modifications as to become every way suited to effect these desirable objects; equally adapted to horticultural purposes generally, and to public buildings, offices, and domestic apartments; calculated alike to maintain the healthy and vigorous tone of the animal as well as the vegetable economy; and on a principle whose operations are more assimilated to Nature's own atmosphere than any other method hitherto discovered."

It is quite right that this mode of heating plant houses should, like every other, have a fair trial; but the idea of heating apartments to be occupied by human beings, with hot water in open troughs, is too palpably absurd to deserve a moment's consideration. Others, however, entertain a different opinion on this subject to what we do. At a meeting of the Plymouth Horticultural Society, held July 19., the Rev. C. T. Collings in the chair, "a neat model of Mr. Corbett's Hygrothermanic apparatus, for heating hot-houses, &c., was exhibited; an invention which the late president of the Plymouth Horticultural Society, Thomas Woolcombe, Esq., says, "will do more for the advancement of horticulture, than anything which has been produced for the last century."

The peculiar characteristic to this invention (for which the Plymouth Society awarded their gold medal) is its completely obviating the disadvantages usually attending the production of artificial heat; viz., a hot desiccated atmosphere, which elaborating the juices of plants more rapidly than they can be secreted, is always injurious and sometimes destructive. To remedy this evil, which has always been a barrier to the success of exotic horticulture, Mr. Corbett produced his apparatus, the actions of which so closely resemble the operations of nature, that an imitation of whatever is required may be obtained.

The machine consists of two connected vessels, a boiler and an upright tube, with a continuation of open troughs or gutters. Heat is applied to the boiler, the water rises and traverses the gutter, giving out moisture in direct proportion to its heat. The density of the fluid being increased in its passage, it returns again to the bottom of the boiler, and by this means a

constant circulation is effected. The apparatus is as simple as it is complete and economical, and will, without doubt, be very generally adopted in horticultural buildings. Mr. Corbett is foreman at Mr. Pontey's nursery, Plymouth, where the apparatus is in operation.

PROTECTING FLOWER SEEDS, &c., FROM BIRDS, BY MEANS OF BLACK THREAD OR WORSTED.—It has been very satisfactorily proved, this summer, under my own observation, that Mr. Anderson's (of the Botanic Garden, Chelsea) discovery of black thread being a far better protection against the depredations of the house-sparrows in gardens than thread of any other color, is much more serviceable than it was found to be by Mr. Anderson himself. That indefatigable guardian of his plants could not secure the flowers of his extensive collection of crocuses from the attack of sparrows by any means he could devise, until he employed black lines, stretched over the flowers; which proved a complete defence.

The effect of black lines if attributable to their invisibility till the birds are seated under them; but looking up, they are terrified at what they fear is a snare suspended over them, and immediately fly away.

NEW AND RARE PLANTS

RECENTLY INTRODUCED.

CYANOTIS AXILLARIS. Messrs. Rollinson's of Tooting, have recently had this new plant in bloom, it has the appearance of a *Tradescantia*, producing a profusion of beautiful blue flowers. It is an interesting hot-house plant.

CYTISUS NUBIGINENSIS. This new species is blooming profusely in the green-house of Mr. Young's, Epsom nursery. The plant is of a slender habit, but produces numerous clusters of white flowers, hanging pendant at the ends of the shoots; they are delightfully fragrant. It deserves a place in every collection, especially so as it blooms at the present season of the year.

MALVA MARITIMA. This very neat species has been in bloom in the superb collection of Mrs. Marryatt's, Wimbledon. The flowers are white with a dark eye, having a very pretty appearance. It is a pretty plant for the flower garden.

BIFRENARIA LONGICORNIS. Orchideæ. Imported from Demerara by Messrs. Loddiges'. The flowers are orange spotted with brown, and are produced in a raceme very much resembling *B. aurantiaca*. (Bot. Reg.)

BOLBOPHYLLUM CUPREUM. Mr. Cumming sent this species from Manilla, to Messrs. Loddiges'. The flowers have a scent very like Valerian root. They are of a copper color. (Bot. Reg.)

CATASETUM PORIFERUM. Orchideæ. Mr. Schomburgk sent this remarkable species from Demerara, to Messrs. Loddiges'. The flowers have much the appearance of *C. deltoideum*, being green, beautifully spotted with deep purple. (Bot. Reg.)

CÆLOGYNE OVALIS. Orchideæ. Dr. Wallich sent it from Nepal to Messrs. Loddiges'. The flowers are beautifully striated with dark crimson. (Bot. Reg.)

ÆTHERIA OCCULTA. Orchideæ. Synonym. *Goodyera occulata*. Messrs. Loddiges' received it from the Mauritius. The flower stem rises about a foot high, producing spikes of white and green flowers.

JONOPSIS TERES. Messrs. Loddiges' received it from Demerara. The flowers are striped with a delicate lilac.

LIPUSIS PENDULA. Messrs. Loddiges' received it from India. The flowers are green, small, produced on a raceme about a foot long.

CŒLOGYNE MACULATA. Orchideæ. Received by Messrs. Loddiges' from India. The flowers are white, beautifully blotched and spotted with dark colors, producing a very striking appearance.

MAXILLARIA MACROPHYLLA. Orchideæ. Imported by Messrs. Loddiges' from Columbia. It much resembles *M. Deppii*. The petals are of a pale straw color, sepals green outside, brown inside, labellum spotted with crimson. Each flower is about three inches across, and has rather a disagreeable scent. (Bot. Reg.)

MAXILLARIA PORRECTA. Orchideæ. Received by Messrs. Loddiges' from Rio Janeiro. The flowers are of a pale buff, having the petals and sepals tipped with dull red. (Bot. Reg.)

MORMODES PARDINA. Orchideæ. J. Bateman, Esq., Knypersly Hall, received this species from Baron Karwinski, who discovered it in Oaxaca. The habit is very robust, being three times the size of *M. atropurpurea*. The flowers are of a beautiful primrose, spotted entirely over with reddish purple, and are delightfully fragrant. G. Barker, Esq., of Springfield House, Birmingham, has had the same species produce self-colored flowers.

NOTYLIA INCURVA. Orchideæ. Messrs. Loddiges' received it from Trinidad. The flowers are of a pale straw color, having fine yellow spots near the base of each petal. (Bot. Reg.)

REFERENCE TO PLATE.

VERBENA TEUCRIOIDES—Specimens of this very distinct species was first sent to this country by Dr. Gillies who collected them from the highest of the Uspallata mountains in South America, at an elevation of ten thousand feet above the level of the sea. Subsequently Mr. Tweedie sent it from Monte Video, and Sagar Loaf Mountain, Buenos Ayres, Mr. Tweedie also sent seeds of it to the Earl of Arran, in whose garden the plant was first raised, and bloomed during the last summer. The plant grows to the height of two feet or more, erect, having numerous spreading branches. The principal stem terminates with a spike of dense flowers, near a foot long. The flowers are at first of a delicate yellowish-white, which afterwards become a pretty rosy pink colour. The flowers too have a delightful jasmine like scent, which is very powerful in the evening and during night, but like the night scented stock, diminishes as the day approaches. The flowers have not the splendour in colour of several other kinds of Verbenas, but far exceeds all others in size. The plant is of easy culture, propagating freely by cuttings, and delighting in a compost of loam, and sandy peat, having a portion of well-rotted dung. Messrs. Handyside, of Musselburgh Nursery possess the stock, and will have plants for sale in April, 1839.

It will doubtless flourish freely in the open ground during summer, but to enjoy its fragrance, should be grown near to a sitting room, or be kept in a conservatory or greenhouse. The very large size of the flowers and spike produced, suggest the propriety of impregnating them with some of the richer coloured kinds, in order to produce some splendid varieties from it. Few plants are of more easy culture than new kinds of Verbenas, or more interesting for the flower garden, whether grown as a single plant, or in masses, in the border, or on rock work. It is stated, that in the native country of the *Verbena melindris*, nearly every cottage is ornamented with it, and we think that, with the other recently introduced species and varieties, ought to have a place in every flower bed in the kingdom.

MALVA CREBANA.— This very pretty species we saw most profusely in bloom during the last summer in the Epsom nursery. Mr. Young had a plant of it growing in the open border about five feet high, numerous branched and clothed with its pretty bright flowers, producing a very showy appearance. It ought to be grown in every greenhouse, and in every flower garden during summer.

It is of easy culture, delights in a rich loamy soil, and striking freely by cuttings. The plant we saw had been in bloom several successive months. Mr. Young had another plant growing near to that we have figured, which had been sent for *Malva Crebana*, but the flowers are of a much paler colour, and are not produced in such profusion.

SALVIA PATENS.— Seeds of this fine species were sent to this country from Mexico by Mr. Tweedie. Mr. Lowe, of the Clapton Nursery has been successful in raising a plant, which we saw in bloom in the open border during the last summer. The plant was near two feet high, and appeared to have had a spike of flowers at least one foot long. The spike appeared to have more than five or six flowers expanded at once, but even before expanding they produced a fine effect.

The spike of flowers being too large to introduce into any plate complete, induced us to select an expanded blossom of the largest size, so that our readers would be able to judge of the splendour of the species in its natural size. It has not the objection attached to it of a mass of foliage and few flowers, but the reverse of that is the case. It produces a fine display when grown in a mass together, contrasted with the scarlet or crimson-flowered species. It ought to be grown in every garden, greenhouse, or conservatory. The plant appeared to be of robust habit, and no doubt will be as easily propagated as *S. africanus*, *splendens*, &c. We are informed that plants will soon be offered for sale by Mr. Lowe.

FLORICULTURAL CALENDAR FOR JANUARY.

For work to be done in the flower-garden, &c. this month, we refer to our last number, where necessary directions will be found, to which we have little to add in this place. Beds of bulbs if not before covered should now be done, and to which attention was called last month, should immediately be minutely looked over, and encouraged in every possible way, first by guarding those that require it from severe weather, and in the second place by taking means to destroy all kinds of insects, &c. likely to attack them. Mice are not unfrequently great pests among bulbs and various kinds of roots; especially in winter, when provisions grow scarce, they resort in great numbers to seeds newly sown, or bulbs newly planted. There are many means to decoy them, most of which if persevered in will succeed. Dahlias and other roots stored in sand or other material for preservation through the winter, are exposed to injuries arising from damp, &c., it is therefore necessary that they be looked over now and then, and timely means adopted to check its increase, and damp from the room expelled. Young plants of *Clintonia pulchella*, &c. will stand quite safe in the greenhouse near the glass, if the situation be light and airy. The soil best for this handsome though delicate plant should comprise two parts of leaf mould, to which may be added a little well decomposed manure, and one part good sandy loam; the soil in mixing should be broken down very fine, and the plants put into sixty sized pots, until they have made some advance, when larger will be necessary. Roses in the forcing-house should be constantly attended to; indeed all shrubs, whether Jasmynes, Persian-Lilac, Azaleas, &c., or whatever species of plant intended to flower early by means of artificial heat, should be attended to, liberally watered, and, when necessary fumigated with tobacco, for they are very often seriously annoyed by green-fly, &c., which infest the young shoots to an alarming extent, but perhaps more particularly roses and pinks. Continue to introduce bulbs, &c., and a succession of flowers will be secured for the greenhouse. Attend

to Amaryllises, and all kinds of stove-roots that are started and starting,—pot and water them, if necessary place them in an increased heat, and be sure to let them have plenty of light. All valuable shrubs and plants which may be deemed hardy, but the hardiness of which has not been sufficiently tested, should be afforded some kind of protection, that the fearful ravages committed by the frost in the preceding winter may not be repeated during the present season. There are various modes of affording shelter to plants, all of which are useful, but most of them are especially applicable to different kinds. Thus, litter for herbaceous plants, old bark for bulbs, and mats or straw hurdles for shrubs and trees, are respectively found most suitable for those peculiar sorts.

In making use of any kind of protection for plants in the open ground, the first and principal point is to attend to the preservation of the roots; for if this is duly affected, most plants will recover and sprout again, even though the stems and branches should be entirely destroyed. This practice is very frequently neglected by cultivators, who appear to think only of preserving the stems and branches, which is certainly sufficient where this end can be fully accomplished, but where the protection afforded to those parts proves inefficient, in nine cases out of ten the roots perish with them. Hence the importance of sheltering the roots likewise.

Whatever material is used for this purpose, the necessity of its being of a dry nature, and also, if possible, capable of repelling wet, should always be kept in view. Moisture, where it exists in any quantity, is sure to attract the greatest degree of frost, and therefore when the roots of plants are surrounded and saturated with a superabundance of it, they will be much more exposed to injury on that account. That covering, then, which is found to be most impervious to rain, will undoubtedly prove most beneficial. By thus protecting the roots, we by no means wish to supersede the use of other covering for the more exposed parts of plants, but merely to see these two desirable objects distinctly yet conjointly effectuated; and every practicable method should by all means be adopted for preserving the upper portions of shrubs.

All in door plants should now be kept as near the glass as is consistent with their safety; for, even in this, there is a degree of propriety to be observed, which, if exceeded, would greatly endanger the subjects of it. It should not be forgotten, that frost enters chiefly through a glazed roof, and the plants should be placed at just such a distance from it as will secure them from that destructive principle; though it is better to keep them at a trifling distance, and protect them by covering the house with mats in very severe weather.

Cold pits and frames will now be found among the most useful of plant structures. Auriculas, Carnations, and Polyanthuses, with all tender plants that have been removed from the flower garden, or are in preparation for that department for the ensuing season, are by this time secured in these or similar erections. They should be carefully tended for the purpose of admitting air in favourable weather, and duly protected with mats, hay, or dry litter, during frosts.

The beds and borders of the flower garden and pleasure grounds may still be dug roughly over, if this operation have not previously been completed. Shrubs of all kinds may be pruned if necessary, and especially climbing plants which must also be nailed to the wall, or fastened against the trellis to which they grow. Make, and plant, cuttings of any species of *RIBES*, or other similar plants, those shoots which are slipped off succeed best, and a light loamy soil is most suitable. All the buds except those at the base and the two uppermost ones, should be extracted, as they would only weaken the plant if left, and in inserting them in the ground, care should be taken to place the earth close around them. Remove any trees or shrubs which require shifting, or that may be desired in any other part of the garden. Always take them up with as much earth as possible about the roots, and be careful to preserve the fibrous roots entire.

9. 11. 1937



Lilium lancifolium var. *roseum*.



Ruellia juncea.

THE
FLORICULTURAL CABINET,

FEBRUARY, 1st, 1839.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

BRIEF HINTS ON THE CULTURE OF THE *RANUNCULUS ASIATICUS*, WITH A LIST OF SORTS DEEMED WORTHY THE ATTENTION OF AMATEURS,

BY CROWFOOT.

EVERY grower of this attractive little flower, should be, in order to be successful, particular in the choice of his soil. To describe a soil minutely and sufficiently, so that any reader may distinguish it to be the right soil, is no ordinary task. It has been advised, and not unwisely to select a soil in which the *Ranunculus ficaria* and other British varieties grow luxuriantly. It should be a loam, rather heavy and tenacious, fine in the texture, soft to the touch, and of a reddish colour.

Procure sometime in the summer months a sufficient quantity to fill your beds a foot deep, and lay in ridges with the turf; to which add about one-third of old horse and cow manure, and turn it till all is decomposed, Make your beds in autumn, so as to allow them several months to settle, before planting season, and at that time only stir the surface two inches deep. Let the top two inches of your compost be free from dung, so that none comes in contact with the tubers.

Plant between the 20th of February and the 5th of March, ac-

ording as the forwardness of the season indicates. Plant one inch and a half deep, and four or five inches asunder. After the plants are up, keep out the drought, by pressing the earth firm and close to the roots, and add a little rich fresh soil. In very dry weather, water, but not over the foliage of the plants; a little manure water will not harm them, but it requires caution in the application of it. Get as good a bloom as you can, but do not suffer more than two flower buds to remain on one root, for by leaving all, there may be weakness and a deficiency the season following. A change of soil is very beneficial.

The *Ranunculus* root, while vegetating, has several enemies; the wire worm and the cheese-log, are among the most inveterate and mischievous. These insects should be diligently looked after and destroyed in any way, and by any means the florist can command. Half a gallon of small potatoes, each one cut in two, and a stick two or three inches in length thrust into each piece, and buried between the rows about the same depth as the roots are planted, will form a hundred cheap snares, by which thousands of these depredators may be attracted. These should be looked over twice a week, and the insects destroyed; the sticks, part of which are above ground, being a guide to the places where the traps are buried. Occasionally a fresh surface should be cut to the potatoe. This will be found one efficient means of reducing these foes to the Florist.

List of 140 fine varieties in Classes.

Class I. *White ground with rose, purple, or crimson edging.*

Burns, Waterstone's
Bernard, Tyso's
Charlotte, Bartlett's
Cossack
Esther, Waterstone's
Flavimorus
Lady Peel, Groom's
Louissette
Regina, Tyso's
Tendress

Class II. *White grounds, with red, rose, or purple mottle.*

Angouleme
Beauty, Milward's
Cowper, Waterstone's
Dona Maria, Groom's
Endon
Gulnare
Helena, Tyso's
Lady Jane Grey, Lightbody's
Lacinda, Tyso's
Orsippus, Tyso's
Queen, Thompson's
Stella

Class III. *White ground with red, rose, or purple spots.*

Addison, Waterstone's
 Benjamin
 Cremona
 Constantia, Tyso's
 Faustina
 Gainsborough
 Innocent, Tyso's
 Lupus
 Lord Cochrane, Waterstone's
 Premium, Tyso's
 Shakspeare, Waterstone's
 Sir A. Cochrane, Lightbody's

Class IV. *Yellow ground with red, or Coffee coloured edging.*

Andromachè
 Bulwark, Lightbody's
 Duke of Wellington, Groom's
 Galatzin
 Grande Monarque
 Horatio
 Herbert, Tyso's
 Julius
 Lorenzo, Tyso's
 Nestor
 Regalia, Tyso's
 Warren, Waterstone's

Class V. *Yellow ground with red or coffee coloured mottle.*

Admiral des Fleurs
 Agamenon
 Bengal
 Competitor, Tyso's
 Duke of Clarence
 Earl of Coventry
 Quintilla, Tyso's

Class VI. *Yellow ground with red or coffee coloured spots.*

Abrisseau
 Epius, Waterstone's

Fabius
 Flaminius, Tyso's
 Poictiers, Lightbody's
 Pertinax Tyso's
 Saladin, Tyso's

Class VII. *White grounds with red, or pink stripes.*

Beauté des dames
 Bonté Heldin
 Circe
 Carmus
 Flagellié a quatre Couleurs
 L'Aube du Jour
 Le Téméraire
 Gillette parfait
 Rhododendron.

Class VIII. *Red grounds with yellow stripes*

Beauté Bekemoth
 Favourite Mignonne
 General Hoche
 Melange des Beantes
 Monument Chinois

SELS.

Class IX. *Dark and dark red.*

Achilles
 Auriga, Tyso's
 Coronax
 Charbonnier
 Dolphin
 Emancipation, Tyso's
 Hercules, Groom's
 Llewellyn
 Naxara
 Œil Noir
 Passe Nigritia
 Philocles
 Surpass Tout

Class X. *Purple.*

Admiral Keppel
 Condorset
 Fete Nocturne
 Herostratus
 Lesbos
 Mon Songe
 Sorbonne

Class XI. *Crimson.*

Apollo
 Batscha
 Belle Cramoisi
 Cramoisi Van Ass
 Henrietta
 Kennetus
 Melpomene
 Overwinnaar
 Silvester, Tyso's
 Semiramis

Class XII. *Red.*

Alcides
 Bourgogne
 Cassandra
 Jupiter
 Moliere
 Sarpedon
 Tasso

Class XIII. *Rose.*

Diomedé
 Holloway, Waterstone's
 Isabella, Tyso's

Lavinia, Tyso's
 Rosetta, new
 Rose de Provence
 Rose Velona
 St. Jerome

Class XIV. *Yellow*

Beroth
 Don Pedro, Groom's
 Eliza
 Flavius, Tyso's
 Fiesco
 Prefect, Tyso's
 Roi des Ranoncules

Class XV. *Orange.*

Brabançon
 Capucin superbe
 Cedo nulli
 Prince Ferdinand

Class XVI. *Olive.*

Admiral Howe
 Bon Financier
 Carlos
 Jaune eu Pompadore
 Olive, rare

Class XVII. *White.*

Argus
 Blanche
 Clarissa, Tyso's
 Hercules
 Kermes
 White Swan

The above list has been prepared with a view to embrace some of the best flowers in seventeen of the classes, which will enable Amateurs to make a selection from all, or from those classes of which their assortments may be deficient. The undersigned, though one of their race, may, perhaps be permitted to speak well of 140 of his fraternity. He can recommend them as deserving a place in every collection of our much

admired tribe. Though many of our recently produced species are priced at from five to fifteen shillings each, yet about a hundred of us, of longer standing in the world, may be obtained of large cultivators for five pounds.

There are a few sorts belonging to other classes, which if acceptable to your readers may be brought into notice with a few remarks at a future opportunity, by your humble servant,

CROWFOOT.

ARTICLE II.

ON STRIKING PLANTS FROM CUTTINGS, &c.

BY EDINENSIS

I HAVE felt at various times inclined to communicate to you, for insertion in your useful, because practical publication, the results of experiments, some with which have been attended with doubtful, and others of decided success; but has hitherto been deterred, by a reluctance to put you to the expence of postage, for which probably the value of my observations might not compensate. Having purchased all, except Vol. IV. of the Cabinet, (which I have again and again ordered, but without success); I have looked over all your editorial notices on the fly-leaf and elsewhere, but could never, amidst all your requests for communications, find so much as a single hint, how correspondents should act on the very important, I should rather say, the delicate point, the post paying of their letters. I find, however, that most of your correspondents prefer being anonymous, or to flourish under the name of some fashionable or favourite plant, or flower, and of course, under such guise or disguise (not knowing who your correspondents may be) you are not bound to retain their lucubrations, nor consequently be subjected to postage from them, unless you please. Relieved therefore by this view of the matter, I feel less annoyed at the thought of a shilling and three-halfpence, which, in the first instance, must be paid for these remarks.*

I have ever read with the utmost avidity all that relates to

* Any communication sent by letter signed anonymous or otherwise if of an useful character, we shall be glad to receive.—CONDUCTOR.

the propagation and culture of plants. As to the first, much has been written of attempts to strike cuttings in water, but from my own experience in such attempts, I am satisfied that that method will not supersede the use of sand and the bell-glass. The plan of Mr. John Street, gardener at Biel, East Lothian, given at page 234 Vol. III. of the Cabinet, of striking cuttings in moss, is far more deserving of attention; I have tried it various ways, and think I have in some respects, improved upon his method (the results of which I may communicate hereafter) and always with success. At present I incline to the belief that there are few or no plants capable of propagation by cuttings, that may not be struck in this way more certainly and more successfully, than by any other means, as now practised by water, sand or soil. Let any of your practical readers try the experiment with pure moss, (*hypnum*) in the ensuing spring, and I feel confident they will come to be of the same opinion; but the mode I have to communicate is still more novel.

Having purchased a plant of *Phlox cordata grandiflora*, so highly spoken of in the Gardener's Gazette, another publication to which I subscribe, I watched its progress towards flowering with much interest, but with Lallah Rookh, I may exclaim,

“ I never loved a tree or flower, but 'twas the first to fade away.”

My *Phlox*, did not certainly fade in the sense of the poet. Its destruction was the work of a day, or rather of a moment. It was on the 6th of September last, the day of the memorable storm, among whose dreadful devastations, the wreck of the Forfarshire stands recorded as not the least appalling. I hurried home at an earlier hour than usual from the Gude-town, as much to save my own head from the winged missiles of slates and chimney pots that were every where descending, as to save the heads of my *Dahlias* in my garden in the suburbs, when amidst their wreck, I had the additional mortification of beholding the only two stalks upon my *Phlox* snap through and through, not a shred of bark left undis severed whereby to splice them up again. Well thought I, here I must wait another twelve months to see the *Phlox cordata grandiflora*, shew the splendid blossoms so be-praised by the Gardener's Gazette. But may the root not perish? was the question! Can I do nothing with these broken stems? was the

next! I took one of them, the most flexible of the two, though both of them had made a great deal of wood (so to speak) and twisting it round and round inside a 40-sized pot, a process not accomplished without two or three fractures, till I had left only about six inches of the stem (the top having been cut off,) and that portion having filled the pot with the usual modicum of drainage and light soil, I brought above the surface, pegging it at the curvature to the soil; at the present moment I have not a more thriving plant in my greenhouse, shoots of two or three inches having already pushed from the upright portion of the stem.

I had some high priced Dahlias which I was afraid I might loose root and branch by the storm and the bad weather, of which I anticipated it (ominously as the season has shewn) to be the harbinger. Of these, some ten days or a fortnight later, I took off shoots, which I twisted, not without many fractures, and rooted in the same way, but some of them were so far gone, that I had no ground to hope of success, yet to my surprise, some of these have succeeded and sent up new shoots through the soil, and though the elevated tops have partially faded, the shoots through the soil look as fresh and vigorous as ever, although it is in the depth of December.

I have thrown these remarks together in great haste, and if you approve of them, you may hear again from

EDINENSIS.

ARTICLE III.

ON THE CULTURE OF FLORISTS' FLOWERS.

BY FLORA.

BEING an old subscriber to your useful publication, and wishing to see it prosper, I have sent you this for insertion if you think fit, and should it be accepted, I may continue at times to forward you others of the same nature, and particularly on Florists' Flowers, which is, or ought to be, the leading article in your Magazine.

My garden is in a low damp situation, rather shaded by trees, and to keep up any tolerable show of bloom in the season is not accomplished without some attention and skill, and as the detail

of my practice may assist others in like situations, it may, perhaps, be in some degree useful to a portion of your readers.

I shall begin with the culture of the Auricula, as it is justly acknowledged the queen of spring flowers by all who have seen an Auricula stage in full bloom, and as the management of the plants in a proper way, is necessary to produce the desired effect, I shall endeavour to give you my practice, and hope it will induce others to try the culture of this beautiful flower, as I am persuaded many are deterred by the difficulty of keeping their plants for any length of time in a sound healthy state, and of course feel disappointment in the blooming season. There are three things that are necessary to be attended to, namely, soil, shelter, and situation.

A good deal has been said about soils proper for the cultivation of the Auricula, and almost every grower has his peculiar one which of course he recommends as the best. I have also a compost which is most simple, and answers the purpose as well perhaps as the most elaborate composition. In some waste place I throw together the weeds, tops of vegetable leaves, &c. and cover these with turf or garden soil, and a little sand or road scrapings, with occasionally a barrowful of horse dung, making the compound as near as may be one half vegetable matter, one-fourth loam, and one-fourth sand, this I form into a ridge, and turn it frequently till reduced to a fine soil, and by adding to one end and taking from the other, I am supplied constantly as wanted. In the general potting season, July or August, I take a portion into a barrow, for the purpose of examining it minutely to clear it from stones, worms, or any other injurious substance, working it well over with the spade, then let it remain till nearly dry before potting with it.

The next requisite after soil, is shelter, this is variously applied, some keep their Auriculas in a cucumber frame during winter, but this is too damp and close, and the sashes lying too flat, the water is apt to drop through, and spoil the plants; I do not see why Auriculas should not have a house as well as Geraniums, and such a house upon a small scale I have, and it answers the purpose remarkably well, I will endeavour to describe it in as clear and brief a manner as possible; it is made of three-fourth inch deal boards on each end closely jointed, the height behind is five feet, and in front one foot, and this is made to have a good slope, the breadth four feet and a half, front to back the

bottom. The front is covered with two sashes, each six feet by three feet, making the whole breadth of the front, about six feet three inches; as the sashes do not slide, but move on hinges fastened to a piece of wood, which goes up the middle, and each sash will thus lift up on one side, and fold backward over the other, and thus, by folding them up in succession each alternate fair day, you may expose the plants to sun and air as required.

The back part is as I said before five feet high, and six feet three inches in breadth, it is closed in by two doors hung by loops and crooks, which are taken off during summer, and this gives the plants plenty of air: it has six shelves that move nearer or farther from the glass, their ends rest on laths nailed within the sides, you may have two or three shelves on each pair of laths if you choose, the lowest is about three inches from the ground, and about eight inches from shelf to shelf, the whole cost about three pounds; this house or frame, if you choose to call it so, will hold a hundred plants on the shelves, and by laying the inside ground floor within the square of bricks on which it stands with ashes, you may have a place for Polyanthuses or common Auriculas during winter. A shelter of some sort is necessary in wet weather, for though the Auricula is a hardy plant, and will bear any degree of cold, except when budding for flower, but wet is at all times an enemy, if it gets into the heart and remains too long.

The third is situation, which is as important as soil or shelter, this must be dry in winter, airy, and elevated above the damp which usually in October and November, causes some plants to go off in what is termed the neck rot, and this is entirely the effect of wet and injudicious management.

On wet ground the plants must be elevated above the surface, and have all the sun you can expose them to, and during spring, until the bloom requires shading. In my next I shall give my routine of management for twelve months, and afterwards, some remarks on the sorts of Auriculas, &c.

FLORA.

ARTICLE IV.

ON FORCING THE LILY OF THE VALLEY AS PRACTISED IN GERMANY AND THE LOW COUNTRIES.

BY G. O.

THIS sweet little flower, which seems to be so little noticed in Britain, is quite a favourite flower in this country, so much so that the natives do not think their garden complete, without a quantity of it growing in shady borders, and in winter when forced, is highly valued. As some of the readers of the Cabinet may have an opportunity of forcing this sweet flower, I forward you the following particulars as practised here, should you consider it worth insertion.

To have flowers at Christmas, the latter end of November is the time to take up the roots. Those selected must not be less than two years old, and in appearance, are something similar to small heads of asparagus, when about two or three inches high, and are furnished with fibrous roots; each of these tubers are wrapped round with a little moss, and placed in pots or mignonette boxes, close together. The boxes or pots are previously filled with old bark or light earth, a thin portion is laid over the crowns, and then a layer of moss which keeps the roots moist, assists in drawing up the flower stems. The boxes or pots are then placed on a fire flue, or any other warm situation. Over these are turned boxes or pots of the same dimensions, upside down, to keep the plants quite dark; in three or four weeks, according to the warmth of the situation, they are abundantly furnished with their lovely bell-shaped flowers, six or eight inches high. Those coming into flower first, are taken out of this situation, being easily removed by having moss round the roots, and placed in small wicker baskets, or ornamental vase, with Hyacinths, Van Thol tulips, &c. which are forced, something similar, for this purpose. When this sort of winter flower basket, pyramid, orange, or vase, is properly executed, the colours of the flowers regularly mixed, and the spaces betwixt the plants filled up with ornamental moss, it certainly has a very neat and pleasing appearance.

The market gardeners are busily employed during the months of November and December, in preparing such decorations for the side board, or drawing room table, as there are only a few

dwellings but have a specimen of this sort, to welcome the happy morn of Christmas.

The tubers of this plant, when purchased for forcing, cost from three to four shillings per hundred. Where a succession is required, the roots are kept in a shady place, or in the border in the garden, covered a foot or eighteen inches with fresh stable litter, so as to be easily come at in frosty weather, as occasion may require. When finished flowering, they are planted in the garden at the latter end of March, and form a plantation for forcing purposes in two or three years.

G. G.

ARTICLE V.

REMARKS ON THE ROSE.

(Continued from page 13.)

THE deep-red China rose was first introduced by Gilbert Slater, Esq. of Knotsgreen, near Laytonstone, in the year 1789; but this is still confined to the greenhouse, being of a much more delicate nature than the common China rose. The flowers are semi-double and large in proportion to the plant, of a fine dark carmine colour, and of delightful fragrance.

The China rose, which has been named Lady Bank's rose, we hope to see soon hardy enough to leave the green house, where it has occupied a place since the year 1807. This is a double-white rose, of very diminutive size, but producing such abundance of blossoms, as to render the branches extremely elegant. We are informed that it was discovered growing out of an old wall in China.

In pleasure-grounds it is scarcely possible to plant too many rose-trees, and they have the best effect when three or four plants of the same kind come together. The Scotch or burnet-leaved rose, from its dwarf growth, forms a good foreground to other roses; and the neat little Rose de Meaux should advance towards the walks, whilst the more towering kinds may mix with shrubs of the middle class.

Where the lawn is interspersed with little clumps, fenced with basket-work, each clump or basket should be confined to one

species of rose, or kinds that are quite opposite in colour; and as it is particularly desirable to keep these clumps successively in blossom during the season, those clumps that blossom the earliest and the latest should be divided by others that flower in the intermediate space.

Rosaries are formed into various devices; but the most common method is by planting the tallest standard rose-trees in the centre of a clump, around which the different species and varieties are placed according to their height of growth, the edge finishing by the dwarf kinds.

Rock work is sometimes covered with creeping roses, and surrounded with other varieties.

For covering arbors or trellis-work, the bracted rose, *Rosa bracteata*, commonly called Sir George Staunton's rose, which was brought from China in the year 1795, is the most proper, for it grows to a great height, and thick of branches that are covered with shining leaves of a very fine green. The flowers are single and perfectly white, of a strong and agreeable perfume; it blossoms in August and September.

The modes of retarding the flowering of the Provence and moss roses, until the autumn are various; and as it is desirable to continue those beauties of the garden longer than they are naturally disposed to last, we will mention the best means of obtaining the enjoyment. The most simple method is by cutting off all the tops of the shoots that have been produced the same spring, which should be done just before they begin to show their buds; this will cause them to make fresh shoots, that will produce flowers late in the autumn. It may also be done by transplanting the bushes in the spring, just as they have formed their buds, which should be cut off, but the roots must not be out of the earth long enough to become dry, and they generally require watering when transplanted late, to obtain roses in October and November.

On the continent, where much more pains are bestowed on the retarding of flowers than in this country, the rose-trees are dug up just as they begin to shew a leaf bud, and the roots are instantly placed in a kind of mortar, formed of brick earth, which serves as a preservative plaster, whilst it debars the fibres of the roots from obtaining the necessary nutriment that would cause the usual growth of the plant. From this state of rest, the plants are removed into the clumps or flower borders in May or June,

according to the time they are wished to be in blossom. When the season is dry, they will require frequent watering to ensure fine flowers. These plants should be kept in a cellar or a shed, where there is but little light.

The common Provence and moss-roses are the most esteemed for forcing, on account of their perfume.

“ This soft family, to cares unknown,
Were born for pleasure and delight alone.
Gay without toil, and lovely without art,
They spring to cheer the sense, and glad the heart.”

Mrs. BARBAULD.

This sweet emblem of love, like the human body, breeds a canker in its bosom, that often destroys its heart.

“ She never told her love,
But let concealment, like a worm i' the bud,
Prey on her damask cheek.” SHAKESPEARE.

“ Death's subtle seed within,
(Sly, treacherous miner!) working in the dark,
The worm to riot on that rose so red,
Unfaded, ere it fell; one moment's prey!

YOUNG.

(To be continued.)

ARTICLE VI.

ON CHINESE GARDENS.

(Continued from page 14)

THEIR summer scenes compose the richest and most studied parts of their gardens. They abound with lakes, rivers, and water-works of every contrivance; and with vessels of every construction, calculated for the uses of sailing, rowing, fishing, fowling, and fighting. The woods consist of beech, oak, Indian chesnut, elm, ash, plane, u-ton-shu (a beautiful specimen of the sycamore, peculiar to China) common sycamore, maple, abele, and several other species of the poplar; with many other trees, peculiar to China. The thickets are composed of every fair deciduous plant that grows in that climate, and every flower or shrub that flourishes during the summer months; all uniting to

form the finest verdure, the most brilliant, harmonious colouring imaginable. The buildings are spacious, splendid and numerous, every scene being marked by one or more; some of them contrived for banquets, balls, learned disputations, ropedancing, and feats of activity; others again for bathing, swimming, reading, sleeping, or meditation.

In the centre of these summer plantations, there is a large tract of ground set aside for more secret and voluptuous pleasures, which is laid out in a great number of close walks, colonades and passages, turned with many intricate windings, so as to confuse and lead the passenger astray; being sometimes divided with thickets, of underwood, intermixed with straggling large trees; and other times by higher plantations, or by clumps of the tse-tan, (a very large species of the rose tree, the wood of which is uncommonly beautiful, and used by the Chinese workmen for tables, cabinets, &c.) common rose-trees, and other lofty shrubs. The whole is a wilderness of sweets, adorned with all kinds of gaudy productions. Gold and silver pheasants, pea-fowls, patridges, bantam and golden hens, quails, and game of every kind, swarm in the woods; doves, nightingales, and a thousand melodious birds, perch upon the branches, deer, antelopes, musk goats, spotted buffaloes, shen-si sheep, (a sort of sheep with very long tails, which trail upon the ground), and Tartarean horses frisk upon the plains. Every walk leads to some delightful object; to groves of orange and myrtle, to rivulets, whose banks are clad with roses, woodbine and jessamine; to murmuring fountains, with statues of sleeping nymphs, and water gods; to cabinets of verdure, with beds of aromatic herbs and flowers; to grottos cut in rocks, adorned with incrustations of coral shells, ores, gems, and chrystalizations, refreshed with rills of sweet scented water, and cooled by fragrant, artificial breezes.

Amongst the thickets which divide the walks, are many secret recesses; in each of which there is an elegant pavilion, consisting of one state apartment, with out houses, and proper conveniences for eunuchs and women servants. These are inhabited, during the summer, by their fairest and most accomplished concubines; each of them, with her attendants, occupying a separate pavilion.

The principal apartments of these buildings, consists of one or more large saloons, two cabinet or dressing rooms, a library, a couple of bed chambers and waiting rooms, a bath, and several

private closets, all of which are magnificently furnished with entertaining books, numerous paintings, musical instruments, implements for gaming, writing, drawing, painting and embroidering; with beds, couches and chairs, of various constructions, for the uses of sitting and lying in different postures.

The saloons generally open to little enclosed courts set round with beautiful flower pots, of different forms made of porcelain, marble, or copper, filled with the rarest flowers of the season; at the end of the court there is generally an aviary; an artificial rock with a fountain and bason for gold fish, or blue fishes of Hay Nang, (a little beautiful blue fish, caught near the island of Hay Nang of which the Chinese ladies are very fond), a cascade, an arbor of bamboo or vine, interwoven with flowering shrubs, or some other elegant contrivance of the same nature.

Besides these separate habitations, in which the ladies are privately visited by their patron, as often as he is disposed to see them, and be particular, there are, in other larger recesses of the thickets, more spacious and splendid buildings, where the women all meet at certain hours of the day, either to eat at the public tables, to drink their tea, to converse, bathe, swim, work, romp, or to play at the mora, and other games known in China, or else to divert the patron with music, singing, lascivious posture-dancing, acting plays or pantomimes, at all which they generally are very expert.

Some of these structures are entirely open, the roofs being supported on columns of rose wood, or cedar, with bases of Co-rean jasper, and chrystal of Chang-chew-fu; or upon wooden pillars, made in imitation of bamboo, and plantain trees, surrounded with garlands of fruit and flowers, artfully carved, being painted and varnished in proper colours. Others are enclosed, and consist sometimes of many different sized rooms of various forms; as triangles, squares, hexagons, octagons, circles, ovals and irregular whimsical shapes, all of them elegantly finished with incrustations of marble, inlaid precious woods, ivory, silver, gold, and mother of pearl, with profusion of ancient porcelain, mirrors, carving, gilding, painting, and laquering of all colours.

The doors of entrance for these apartments, are circular and polygonal, as well as rectangular; and the windows by which they are lighted, are made in the shapes of fans, birds, animals, fishes, insects, leaves and flowers; being filled with painted glass,

or different coloured gauze, to tinge the light, and give a glow to the objects in the apartment.

All these buildings are furnished at a very great expence, not only with the necessary moveables, but with pictures, sculptures, embroideries, trinkets, and pieces of clock work of great value, being some of them very large, composed of many ingenious movements, enriched with ornaments of gold, intermixed with pearls diamonds, rubies, emeralds, and other gems.

Besides the different structures already mentioned, they have some built in large trees, and disposed amongst the branches like nests of birds, being finished on the inside with many beautiful ornaments, and pictures, composed of feathers, some they have likewise made in the form of Persian tents, others built of roots and pollards, put together with great taste : and others, which are called Miao Ting, or Halls of the Moon, being of prodigious size and composed each of one single vaulted room, made in the shape of a hemisphere, the concave of which is artfully painted in imitation of a nocturnal sky, and pierced with an infinite number of little windows, made to represent the moon and stars, being filled of tinged glass, that admits the light in the quantities necessary to spread over the whole interior fabric the pleasing gloom of a fine summer's night.

The pavements of these rooms are sometimes laid out in parterres of flowers ; amongst which are placed many rural seats made of fine formed branches, varnished red to represent coral ; but oftenest their bottom is full of clear running water, which falls in rills from the sides of a rock in the centre ; many little islands float upon its surface, and move around as the current directs, some of them covered with tables for the banquet, others with seats, and other furniture, for various uses.

To these Halls of the Moon the Chinese princes retire with their favourite women, whenever the heat and intense light of the summer's day becomes disagreeable to them ; and here they feast, and give a loose to every sort of voluptuous pleasure.

No nation ever equalled the Chinese in the splendour and number of their garden structures. We are told, by father Attiret, that in one of the imperial gardens, near Peking, called Yven Ming Yven, there are besides the palace, which is of itself a city, four hundred pavilions, all so different in their architecture, that each seems the production of a different country.

(To be continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

BRASSAVOLA MARTINIANA. Dr. Von Martin's Brassavola. (Bot. Reg.

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

1. This species was originally discovered by Dr. Von Martins on the banks of the Rio Negro in Brazil, and where it was found to delight in a rough and stony soil, not too retentive of moisture. Messrs. Loddiges's cultivated the plant most vigorously in a soil, consisting of rough peat, well mixed with broken bricks or stones, and the pots must be well trained at the bottom. Each flower is about two inches and a half across. Petals yellowish green, labellum white, having the base yellow.

LEONOTIS NEPETÆFOLIA. Cat Mint-leaved. (Bot. mag. 3700

LABIATÆ. DIDYNAMIA ANGIOSPERMIA. synonym. PHLOMIS NEPETÆFOLIA.

2. Introduced from various parts of Africa. The flowers are in dense axillary, distrait clusters. Each cluster is upwards of two inches in diameter. The flowers are of a bright red colour, clothed densely with red velvety hairs. The plant, when in bloom, makes an interesting and showy object. Leonatis, from Leon a lion, and Os Opis an ear, from a fancied resemblance of the flowers to the ears of that animal.

LEYCESTERIA FORMOSA. Beautiful. (Bot. Reg. No. 2 1839

CAPRIFOLIACEÆ. PENTANDRIA MONOGYNIA.

3. This plant is a native of the Himlaya mountains, and is a charming shrub, and grows very profusely on some of the highest mountains, at an elevation of 8000 feet above the plains, surrounding the valley of Nepal, where it blooms from April to October. Seeds of it were sent from India by Dr. Royle to the London Horticultural Society, it is found to be a hardy evergreen, having stood the severity of the winters 1837 and 1838. In its native situation it grows says Dr. Wallich, so that its stem rises to twelve feet high, and upwards of an inch in diameter. The leaves are large and of a dull green. The flowers are produced in drooping spikes. The bractees are showy, being of a reddish-purple colour. The corolla is white, and about three quarters of an inch long.

The plant is found to grow the most freely in an open sunny situation. Although it is not so handsome as was anticipated from the account sent of it from India, yet it will be found very ornamental when the plant has acquired a large size. Plants may now be obtained at a few shillings each at most of the public nurserymen. Leycesteria, so named in compliment to William Leycester, chief judge of the principal native court under the Bengal presidency; a very distinguished Horticulturist.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON FIRST RATE PROPERTIES OF CALCEOLARIAS.—As I intend to raise new varieties of the Calceolaria, I would be much obliged to any of your Correspondents to state in the Cabinet, the points which are principally attended to by the judges on deciding on the merits of the Calceolarias produced at the different shows in the South, and how much they reckon on the form, the colours, and the size of the flowers, respectively. SCOTUS.

ON THE CHRYSANTHEMUM.—I have in my conservatory a white Chrysanthemum, quilled, and very double; upon one branch there is a flower different from the rest, having two or three rows of the outside petals quite pink. I have also another plant of large pink clusters, having upon its branches flowers nearly perfectly white. I was at first inclined to think that this might be owing to the age of the flowers; but I find that other flowers of the same age do not assume the same colour. If I were to cut off these branches and strike them in a hot bed, I should be glad to learn whether it is probable they would give out flowers of the same sort, or return to that of the native stem?

(We have found in some instances that a distinction has been retained, and in others where they have returned to the original. It is worth trying!—CONDUCTOR.)

In Mr. Freestone's method of saving the seed of this flower in last year's Vol. p. 220, he says, "Take the pollen from any of the same double flowers and apply it to the stigma of the two outside rows of Petals." Does he mean to the outside rows of a semi-double flower, or to any double flower?

(To any.—CONDUCTOR.)

TILLINGTONIENSIS

ANSWER.

ON RAISING DAHLIAS WITH VARIEGATED FLOWERS.—Answer to C. Nevill's Query on the Dahlia, in the Cabinet of January 1837. I tried the experiment here mentioned, applying the roots to the King of the Whites, and of Lady Fitzharris, the first a pure white, and the other a bright scarlet flower, they were applied together before being planted, and planted in the usual way. There was only a single flower which came to perfection, and which was very large, but had the colour of Lady Fitzharris alone. I attributed the size of the flower to the additional nourishment obtained from the roots, but as Lady Fitzharris is naturally a large flower, I now incline to doubt this. I did not get any seed from the flower, as the frost came on early that season. As my object was the obtaining Dahlias with variegated flowers, I am now satisfied it would be more quickly obtained by impregnating the stigma of one with the pollen of others. I have not repeated the experiment. When the roots of the two Dahlias were taken up at the end of the season, the root of the King of the Whites was perfectly wasted, that of Lady Fitzharris quite fresh. SCOTUS.

REMARKS.

ON ROSA HIBERNICA.—In your last number, you make a quotation from Mr. Gore's Rose Fancier's Manual, which contains one translated from a French author whom you characterize as having published the best account of Roses, who after depreciating Mr. Templeton's discovery of the Rosa Hibernica, there states, that it is the same with Rosa canina and R. Spinosis.

sima, or if the seeds are sown in stiff land, it will produce the former, if in light land, the latter. I have no specimen of *Rosa Hibernica* at present by me, and therefore cannot compare it with *R. canina*, but as Sir James E. Smith, the first botanist of his day, considers it a distinct species, I cannot permit the article to be uncontradicted; I know the *R. spinosissima* as well as the *R. canina*, and have seen wild specimens of every sort, but never in any degree approaching to each other; indeed, I doubt, if two more distinct species could be selected, and I am sure that the seeds of the one will not produce any plant likely to be mistaken for the other, as I have more confidence in Sir James E. Smith than Mons. Boitard, you may rest assured that as the roses *Hibernica*, *Spinosissima* and *Canina*, are distinct species and not varieties, the seeds of the one, can never by any chance produce plants of either of the other two.

Fifeshire, December 1838.

SCOTUS.

THE GARDENS
OF THE
ROYAL BOTANIC SOCIETY OF LONDON,
Inner Circle Regent's Park.

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HER MOST GRACIOUS MAJESTY.

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Lord Alfred Hervey	Lord Langdale
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The Lord Bishop of Durham	
The Lord Bishop of Lichfield	
The Lord Bishop of Norwich, Pres. Lin. Soc.	

&c. &c. &c.

We have very great pleasure in noticing the operations of this newly formed Society, of their intentions to form a Botanic Garden in the centre circle of Regent's Park; and to see the object is already patronized and supported by such a numerous list of the Nobility and Gentry, who are, uniformly, promoters of science, arts, &c.

The situation selected, is, in our opinion, the best that could be obtained to answer all its purposes.

During the last two years we have very frequently visited the ground, and particularly examined the situation, soil, trees, plants, &c., in order to ascertain its suitability for horticultural and floricultural purposes; and so satisfied were we of its merits, that more than a year back we entered into correspondence with Mr. Jenkins as to terms of taking it, with a view to attempt at what is now commenced by this Society.

We have read objections made by the conductors of some gardening periodicals, relative to the situation selected being unfavorable, and that the soil was very unsuitable to the growth of plants. It is stated, "that the situation is such, as to be annoyed so with smoke, that no delicate plant will thrive in the open air;" we have seen very numerous facts in the ground to disprove such a statement, even with trees and plants that had had ordinary attention as to planting, and subsequent treatment. And the object of the Society, having received the assistance of government to further their intentions, it is not presuming too much to say that any existing administration of the affairs of this country will be so far desirous to encourage science, &c., as to prevent the erection of anything annoying, nearer than the dwellings there are at present.

Respecting the soil it is said to be a strong clay upon a retentive bottom; admitting such to be a fact, even to an extent, which, up to the present has been injurious, the position of the ground, with that surrounding it, is such, as to afford every desirable facility to remedy it. It appears to us that a desire exists in some parties to produce an unfavorable impression on the mind of the public, which no facts can justify. The free growth of forest trees, shrubs, and other plants are sufficient evidence on the subject. And whatever plants may be hereafter introduced on the ground that require accommodation with a peculiar soil, or mode of treatment tending to promote their vigours, (and such attention is obliged to be paid to some plants in every horticultural and floricultural establishment, whether public

or private) they will unquestionably be received; and in this as well as the other objects the Society have in view, we have every reason to conclude, the garden and its appendages will be so managed, and be so successful, pleasing and instructive, as to meet with the approval, as it no doubt will, with the desired support of the British Public, and we do most heartily wish it every success.—(CONDUCTOR.)

Notwithstanding the manifest importance of a proper acquaintance with the productions of the vegetable kingdom, there is not, to this day, in the metropolis of the commercial world, a public establishment devoted to their general study: and while foreign countries possess such institutions, and there are forty in our own empire, we are the last to avail ourselves of their advantages. The benefits to be derived from a properly directed botanic garden are so apparent that it argues an inconceivable deficiency in our local administration that they should be so long neglected. The only way in which the study of botany has received attention has been for medical purposes; and it is to be regretted that that knowledge should be considered as restricted to one profession, which is capable of still further development. The chemical properties of plants are not confined to their medical uses, but exercise important functions in manufactures; and indeed when it is considered how little advanced is our acquaintance with their analysis, they should acquire a greater importance in our eyes, from their susceptibility of extended application in a more advanced state of science. The use of dye plants is but one of many chemical preparations; and the manufacture of sugar is a series of chemical processes. The employment of vegetable productions in textile fabrics makes them an object of commercial importance, and renders them deserving of scientific investigation; and the manufacturing properties of plants are so various as at once to open a wide field for observation and inculcate the necessity of it.

But if the study of the raw material have met with so little attention at our hands, there is another application of it to manufactures which has necessarily suffered still more in the general neglect. This is the application of the study of the external form of plants to the improvement of our arts and manufactures; and we need not be surprised if the effect of such neglect has been to leave them in a state of barbarism, as compared with the rest of Europe, unworthy of our positions in the commercial world. Few points could be selected more strongly to show the intimate connexion which exists between all departments of the arts and sciences, and the ill effects which proceed from the non cultivation of any of the series. In this case a complicated neglect is involved; and we find an equal want of attention to botany, the fine arts, and our true commercial interests. The consequence is, not only are we deprived of foreign markets, but we are unable to preserve our own from the inroads of strangers, and are subjected to the stigma of barbarism in the eyes of those to whose taste we are made captive by our own ignorance. The extent of this economical injury is twofold; first as we are subjected to a positive loss by the importations of silks, cottons, velvets, papers, and jewellery from France; clocks from Switzerland; bronzes from Italy; and Berlin ware from Prussia; but we continually lose by our exclusion from foreign markets, which other advantages would enable us to supply. The United States would undoubtedly prove a large customer for articles of taste, were we able to supply them with such productions, for which the congeniality of associations between the two nations would obtain a preference over any foreign rivals.

The adaptation of botanical subjects is the principal source of patterns for textile and imitative goods, and a facility for studying such objects is consequently the desideratum for the improvement of our manufactures. This has been recognised by every public body by which it has been investigated; and the evidence before the Select Committee of the House of Commons, on the State of Arts and Manufactures, affords abundant testimony of the necessity of this study.

Sir C. Cockerell, the architect of the bank, says—"As regards porcelain, foreigners are superior to the English in flower painting and ornamental scroll work."

Mr. George Rennie, the sculptor, attributes the excellence of the French artists to their superior facilities for studying design, and particularly recommends instruction in botanical drawing.

Mr. Crabb, an eminent designer says—"The French papers are superior in design, both in the original idea and the detail of the drawing; for in England we have no school to obtain such instruction. The foliage is beautiful and the flower borders are exceedingly well executed, while in the English patterns the leaves are not those of the flower, an inaccuracy which we never find in the French. This facility of adapting the forms and colours most gratifying to the eye, must be the result of early and continued acquaintance with flowers and plants. A botanical garden would be of the highest value, for there is scarcely anything where, in some form, botany is not introduced, and more extensively we are acquainted with it the better; we get more beautiful lines, more original effects, and finer forms than we do by any other means; we find no coloring equal to that of nature."

Mr. Donoldson, the architect, says—"that the manufacturing artists require instruction, in botany, as connected with construction, in order to give a workman an insight into the nature and properties of vegetable substances, and a more accurate knowledge of their forms when he wishes to delineate or model them; all of which may be very much derived from the study of their growth and formation. I should also recommend, that such a general idea of chemistry, as connected with construction, should be given, as would enable a workman very usefully to apply that knowledge in respect to dry rot, and other similar circumstances, such as the various properties of colors, both mineral and vegetable, and their greater or less durability."

(TO BE CONTINUED.)

NEW OR RARE PLANTS.

NOTYLIA PUNCTATA. Orchidææ. The flowers of this species are whiter than those of any other, and are produced on a short fluxuose raceme.

(Bot. Reg.

NOTYLIA BARKERI. Orchidææ. Received by G. Barker, Esq., from Mexico. The flowers are very like *N. incurva*, but are of a darker yellow, and rather smaller.

(Bot. Reg.

NOTYLIA MICRANTHA. Orchidææ. Messrs. Loddiges' received it from Demarara. The flowers are very small, of a pale green, with a yellowish lip.

NOTYLIA TENUIS. Orchidææ. Received from Demerara by Messrs. Loddiges'. The flowers are of a pale straw color.

(Bot. Reg.

PLEUROTHALIS MUSCOIDEA. Orchidææ. This is in the collection of Messrs. Loddiges', and is the smallest plant of any of the Orchidææ sent to this country. The flower is of a dull purple, having an orange margin to the petals and sepals, the lip is stained with purple and orange.

THUNBERGIA HAWTOWNIANA.—This new and pretty flowering species produces a profusion of its purple blossoms which have a pretty appearance, more particularly when grown in contrast with the *T. alata*, and *T. leucantha*.

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 *Amaryllis*, &c. Tender and small kinds of plants should frequently be examined, as to have surface of soil loosened, decayed leaves taken away, or if a portion of a branch be decaying, cut it off immediately, or the injury may extend to the entire plant and destroy it.

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

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 replacing it with new.

BULBS, as *HYACINTHS*, &c., grown in water glasses, require to be placed in an airy and light situation when coming into bloom, (See Art. Vol. vi, on the subject). 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, also cuttings or slips be struck as they take root freely now.

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, GERANIUMS, &c., desired for planting out in borders or beds during spring and 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 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 AND ANEMONIES should be planted by the end of the month.

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

TENDER ANNUALS—Some of the kinds, as Cockscombs, 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.

REFERENCE TO PLATE.

LILUIM LANCIFOLIUM ROSEUM. This very beautiful flowering lily was sent by Dr. Siebold, from Japan, and we had the pleasure of seeing it in bloom, and partaking of its fine fragrance during the last summer, at Messrs. Low & Co's Nursery, Clapton, and at Messrs. Loddiges's of Hackney. The flowers of this kind are larger than any of the others introduced by Dr. Siebold, and produces a fine effect. The color is not so striking as the flowers of *L. speciosum*, but in other respects are more magnificent.

The plant we saw in bloom at the Hackney Nursery was growing in a raised bed in the conservatory, and an open sunny situation had been selected, which latter advantage is considered essential to the plant flowering successfully. The flower stem had reached four feet high, and had produced eight of its beautiful blossoms.

We saw some plants grown in pots, but the flowers were much smaller than what we saw at the Hackney Nursery. The finest plants were growing in a rich loamy soil, having a good drainage; when the shoots begin to push the plant requires a free supply of water, which is continued till it has done blooming, and afterwards gradually declined, so as to be kept dry during its dormant state.

We have not seen any plant growing in the open border, but this may arise from their scarcity, as well as present estimated value, but we think it very probable, that if grown in pots in spring, and pushed in a cool frame or greenhouse till the end of May, and then turned out into the open border in a favorable situation, they would bloom superbly; for we observed that the colour of the flower was greatly heightened in proportion to the openness of the situation.

These beautiful lilies ought to be grown in every greenhouse or conservatory. The price now asked is rather high, but their propagation going on so extensively, will soon allow them to be obtained at a lower rate. The mode of propagation we saw very successfully adapted at the Epsom and other Nurseries, was the following. A bulb was taken when in its dormant state, but just when about to vegetate, and the outward scales carefully taken off. The scales are then planted in small pots, one in each, in a light loamy soil, and placed in a frame where there is a gentle heat. These soon form at the base of each a small bulb, and when of the size of a garden pea, they are carefully taken off and replanted in small pots, and by encouragement soon increase to blooming bulbs. The bulb from which the scales are taken is planted for blooming as the others are. When the scales and infant bulbs are in the pots, care is requisite that they are not rotted by an excess of moisture. In some instances, when the scales are not disturbed at an early stage in order to take off a single bulb, three or four bulbs are produced from a single scale.

Attention to propagation will so far increase these delightful plants, that we hope every cultivator of flowers, having the opportunity will possess them.

RUSSELLIA JUNCEA. This charming plant is one of the prettiest ornaments which can be grown in the greenhouse, and certainly ought to be in every one. It is of easy culture, delighting in a soil of equal parts of rich loam and sandy peat, having a free drainage. The plant is very readily propagated by slips or cuttings inserted in sand, or sandy peat, and placed in a hot bed frame, or other situation where a moist and warm temperature can be obtained.

March 1939



D. Horneri Peotce.



Oncidium Forbesii.

Calceola scutellaroides.

THE
FLORICULTURAL CABINET,

MARCH, 1st, 1839.

PART I.

ORIGINAL COMMUNICATIONS

ARTICLE I.

REMARKS ON THE CULTURE OF THE RANUNCULUS.

BY MR. THOMAS IBBETT, MOUNT PLEASANT, WOOLWICH.

IN reviewing the Cabinet for May last, I was much pleased with the Article on the culture of Tulips, written by Mr. J. Slater, which does him much credit, and displays sound judgment. I therefore beg to make a few observations, confirmatory of his statement, and may also prove serviceable to such growers as may think proper to put it into practice.

And in so doing it is but fair to state that I received the information from Captain Jones of the royal navy, a gentleman that has spared neither pains nor expence in the culture of the Tulip; he says "that having visited every grower of eminence within twenty miles of London to see their blooms, he could find none to equal the late Mr. Velga's of Hammersmith, a gentleman that was well known for many miles round his neighbourhood," and the method he pursued for the cultivation of the Tulip was as follows:

Having made choice of a good meadow, he took off the surface about six inches deep with the grass sod, which he filled up in the form of a haycock, keeping a sufficient quantity for one year under another, about three months before planting; he began to make up his bed, first taking out from the old bed about two spits

of earth. He then with a spade trimmed off all the top surface of the pile of earth before mentioned until he had as much as would lay over his bed an inch and a half deep, letting it lay eight or nine days exposed to the sun and air, he would then lay on another layer of the same depth as before, and so on until the bed was completed, &c. I have been informed by many persons as well as Capatain J. that Mr. Velga's Tulips surpassed all they had ever seen for the beauty of the foliage and the delicacy of the blooms.

I do not pretend to be a first rate grower of Tulips, but I have no doubt the practice is an excellent one; my attention being chiefly confined to Dahlias, Carnations, Piccotees, and Pinks, the latter of which I flatter myself, few can excel me in, either for a collection or blooming,

Should you think the above remarks worthy a place in the Cabinet, I feel pleasure in forwarding them, and shall feel gratified if they assist any one in the culture of the Tulip.

T. IBBETT.

ARTICLE II.

ON STRIKING GAILLARDIA PICTA FROM CUTTINGS, AND FURTHER MANAGEMENT OF.

By Mr. George Geldert, Gardener to Edmand Steer, Esq. Hamm, near Hamburg, Germany.

NOT having noticed any thing in the Cabinet on the raising *Gaillardia picta* from cuttings induces me to send you an account of my mode of management with it during the last two seasons, and if it be judged of sufficient interest for insertion in the very useful pages of the Cabinet, I shall be glad of its early insertion, as it may furnish some particulars for practice during the approaching season.

In the spring of 1837 I procured some seed of this very neat and showy flowering plant, but the seed not proving very good, I only succeeded in raising a few plants. After the plants had established themselves in the flower border, and pushed side-shoots about three inches long, I cut them off close under a joint, and inserted six or eight in a small pot. Having a hot bed frame at work, with a little bottom heat, for striking cuttings of *pelargoniums* in, I plunged the pot of *Gaillardia* cuttings therein, and in about three weeks, found every one well rooted.

Having potted them singly into small pots in a rich soil, I placed them in a shady situation, upon a bed of coal ashes, and where they were sheltered from the wind, in this place they soon established themselves.

At the beginning of September, I had a few of the best repotted in rich earth and placed in the greenhouse, which soon came into bloom, and continued to flower for a long time. The remaining plants were plunged in a cold frame where they were protected from the severity of the winter, and early in the following spring I cut off the the tops and side shoots, and struck them along with *Petunias* *Heliotropes*, &c. About the middle of May of this year, I turned them out into the open ground in order to have an entire bed in the flower garden; they soon began flowering, and continued a mass of bloom till autumn, making a very beautiful appearance.

From these plants I continued to propagate during summer, and now have near four hundred plants to furnish the greenhouse with for the approaching months, and to have a supply to turn out into the open borders and beds the next spring.

I prefer plants from cuttings to those raised from seed, because they begin to bloom very soon after planting out, whereas those from seed generally grow bushy and too much foliage, and seldom begin to bloom before late in summer, generally as far back as August.

G. GELDERT.

ARTICLE III.

REMARKS UPON A NEWLY-IMPORTED HALF-HARDY SPECIES OF SALVIA, CALLED SALVIA PATENS.

BY G. BENTHAM, ESQ.

THE richness and variety of colouring observable in the numerous species of *Salvia*, which adorn the mountains of South America, and Mexico, have long been known to Botanists, but it has happened that few of them have hitherto found their way into our gardens. The *S. splendens fulgens*, *Grahamii*, and *Mexicana* occupy, it is true, the place in our collections they so eminently deserve, and some few others of considerable beauty, such as *S. leucantha*, *leonuroides*, *angustifolia*, &c. are occasionally to be met

with in botanical gardens. It will, therefore, excite some surprise, that this plant, growing plentifully in the same districts from whence we have received the *S. fulgens*, should never till now have been transmitted to this country; and it will be readily believed that there are yet many which would amply reward the exertions of future collectors. We know, for instance, of a *Salvia longiflora* among the Peruvian mountains, with a corolla above five inches long; a *S. speciosá* in the same country, with long dense spikes of a rich purple; a white-flowered *S. leucocephala*, said far to exceed the beauty of *S. leucantha*; and in the Mexican mining districts, the *S. Regia Sessei*, and *pubescens*, with their inflated scarlet calyxes, *S. phœnicea*, covered with a profusion of flowers of the same colour, are stated to be fully equal to the *S. fulgens* in their general appearance; and even in South Brazil it is probable that *S. persicifolia*, or some other allied to it, may fairly enter into competition with *S. splendens*. Others are known to have orange or yellow flowers, of different shades. Indeed, out of nearly two hundred species of American *Salvias*, there seems reason to believe that three-fourths of them may be worthy of cultivation.

We may hope, however, that in the *S. patens*, we have now secured one of the most desirable of the group, more especially as there seems reason to believe that it is not more tender than *S. fulgens*. It is from the same mining districts of Guanaxuato, Real del Monte, Tlalpuxahua, &c. It was there first discovered by Nee, a Spanish botanist, who gave it the name of *S. grandiflora*, but that name having been pre-occupied, Cavanilles published it from Nee's dried specimens and coloured figure, under the name of *S. patens*. Humboldt and Bonpland again brought dried specimens to Europe; and Kunth not aware of Cavanilles figure, called it in his *Nova Genera*, *S. spectabilis*, for which he afterwards in his *Synopsis*, substituted Cavanilles name, since adopted by botanists.

The *Salvia patens* is a perennial, growing to the height of two, three, or four feet, erect and hairy. The leaves are large, ovate, or deltoid, broadly hastate, or somewhat heart-shaped at the base, or the upper ones rounded, green and hairy on both sides. The flowers are disposed in long terminal racemes, usually branching into three at the base; along this raceme they are placed in opposite pairs, each one at the axilla, of a small linear-lanceolate floral leaf. The flower stalks are short, the calyx half to three-

quarters of an inch long, hairy, green, and deeply divided into two lips—the upper one entire, the lower deeply two-cleft. The corolla, of a rich blue, between two and three inches long, is remarkable for its broad gaping mouth, the upper lip being long, falcate, and erect, enclosing the stamens and pistil; the lower lip hanging with two lateral oblong reflexed lobes, and the middle one very broad and emarginate.

The *S. patens* will probably thrive best under the same treatment as that which succeeds with *S. fulgens*, and like that plant it will be found to vary much in the size, the brilliancy, and the number of flowers, according to the temperature and light in which it is grown. Particular care should be taken not to weaken the plant, or suffer it to become etiolated, in order that the raceme may not lengthen too much, and increase the distance between the flowers.

We owe this splendid addition to our gardens to the exertions of John Parkinson, Esq. her Majesty's consul at Mexico, who transmitted seeds to this country early last year; and it was raised and first flowered in August last by Mr. W. B. Page, Nurseryman Southampton. It has also been raised by Messrs. Low, Clapton, and Mr. Pontney, nurseryman at Plymouth.

G. BENTHAM.

ARTICLE IV.

ON PROPAGATING TREES BY CUTTINGS IN SUMMER.

BY T. A. KNIGHT, ESQ. F. R. S.

WHEN a cutting of any deciduous tree is planted in autumn, winter, or spring, it contains within it a portion of the true, as it has been called, or vital sap of the tree of which it once formed a part. This fluid relatively to plants, is very closely analogous to the arterial blood in animals: and I shall therefore, to distinguish it from the watery fluid, which rises abundantly through the alburnum, call it the arterial sap of the tree. Cuttings of some species of trees very freely emit roots and leaves, whilst others usually produce a few leaves only and then die; and others scarcely exhibit any signs of life; but no cutting ever possesses the power of regenerating, and adding to itself vitally, a single particle of matter, till it has acquired mature and efficient foliage. A part of the arterial sap, previously in the cutting, assumes an

organic solid form; and the cutting, in consequence, necessarily becomes, to some extent, exhausted.

Summer cuttings possess the advantage of having mature and efficient foliage, but such foliage is easily injured or destroyed, and if it be not carefully and skilfully managed, it dies. These cuttings, such as I have usually seen employed, have some mature and efficient foliage, and other foliage which is young and growing, and, consequently, two distinct processes are going on at the same time within them, which operate in opposition to each other. By the mature leaves, carbon, under the influence of light, is taken up from the surrounding atmosphere, and arterial sap is generated. The young and immature leaves, on the contrary, vitiate the air in which they grow by throwing off Carbon; and they expend, in adding to their own bulk that which ought to be expended in the creation of shoots. This circumstance respecting the different operations of immature and mature leaves, upon the surrounding air, presented itself to the early labourers in pneumatic chemistry. Dr. Priestley noticed the discharge of Oxygen gas, or dephlogisticated air (as it was then called) from mature leaves. Scheele, making, as he supposed, a similar experiment upon the young leaves of germinating beans, found these to vitiate air in which they grew. These results were then supposed to be widely at variance with each other, but subsequent experience has proved both philosophers to have been equally correct.

I possess many seedling young trees of the *Ulmus campestris*, or *Suberosa*, or *Glabra*, for the widely varying characters of my seedling trees, satisfy me, that these three supposed species are varieties only of a single species. One of these seedling plants presented a form of growth which induced me to wish to propagate from it. It shows a strong disposition to aspire to a very great height with a single straight stem, and with only very small lateral branches, and to be therefore, calculated to afford sound timber of great length and bulk, which is peculiarly valuable, and difficult to be obtained, for the keels of large ships; and the original tree is growing with very great rapidity in a poor soil and cold climate.

The stem of this tree, near the ground, presented, in July, many very slender shoots, about three inches long. These were then pulled off and reduced to about an inch in length, with a single mature leaf upon the upper end of each, and the cuttings

were then planted or deeply in the soil. The cuttings were then covered with bell glasses in pots, and put upon the flue of a hot-house, and subjected to a temperature of about 80 degrees. Water was very abundantly given, but the under surfaces of the leaves were not wetted. These were in the slightest degree faded though they were fully exposed to the sun; and roots were emitted in about fifteen days. I subjected a few cuttings taken from the bearing branches of a mulberry tree, to the same mode of management, and with the same result; and think it extremely probable, that the different varieties of Camellia, and trees of almost every species, exclusive of the Fir tribe, might be propagated with perfect success and facility by the same means.

Evergreen trees, of some species, possess the power of ripening their fruit during winter. The common Ivy and the Loquat are well-known examples of this; and this circumstance, combined with many others, led me to infer that the leaves of such trees possess in a second year the same, or at least, nearly the same power as they possessed in the first. I therefore planted about a month ago, some cuttings of the old double blossomed white and Warrantah Camellia, having reduced the wood to little more than half an inch in length, and cut it off obliquely, so as to present a long surface of it; and I reduced it further by paring it very thin and near to its lower extremities. The leaves continue to look perfectly fresh, and the buds in more than one instance have produced shoots of more than an inch in length, and apparently possessing perfect health and much vigour. Water has been very abundantly given; because I conceived that the flow of the arterial sap from the leaf would be so great, comparatively with the quantity of the bark and alburnum of the cuttings, as to preclude the possibility of the rotting of these.

The cuttings above described, present in the organization, a considerable resemblance to seedling trees of different periods of the growth of the latter. The bud very closely resembles the plumule, and the leaf, the cotyledon, extended into a seed leaf; and the organ which has been, and is called a radicle, is certainly a caudex, and not a root. It is capable of being made to extend in some cases, to more than two hundred times its first length, between two articulations, a power which is not possessed in any degree by the roots of trees. Whether the caudex of the cuttings of Camellias above-mentioned, have emitted, or

will, or will not, emit roots, I am not yet prepared to decide, but I entertain very confident hopes of success.

T. A. KNIGHT.

ARTICLE V.

A DESCRIPTIVE LIST OF CAMELLIAS.

BY CAMELLIÆ.

(Continued from Vol. VI.)

- Pictorium coccinea*, double bright red, large beautiful flower.
Formosa, double light red, large and fine.
Maria Dorothea, double white pink, spots or stripes.
Amiable, double rose, white centre, beautiful form, extra fine.
Delesii, double dark rose, large and good.
Fimbriata rubra, double fringed, dark red, good form.
Philidelphica, double deep rose, large and extra fine.
Pulcherrima striata, double rose, large white spot or stripe.
Jacksonii, double dark rose, blush centre, beautiful form, extra fine.
Pelegrina, double white, dark blood red spot or stripe, fine.
Anemoneflora sinensis, double striped warratah, from China.
Spectabilis Maculata, double white with red spots, or striped.
Fasciculata speciosa, double flesh colour, with white stripe, fine.
Superbissima grandissima, double dark red, extra large and fine.
Belle Rosalie, semi double dark red.
Celestina, double light rose, cupped petals, extra, fine form.
Lineata, double buff or blush, small red spots.
Variiegata præcox, double light red, white stripes.
Reticulata novæ species, semi double light red, flowers from eight to ten inches across.
Francofurtensis, double rose, changing to a pale pink, flowers nearly as large as *Reticulata*.
Amanda, double, fine red, large and good.
Cloweana, double red, white spots or stripes.
Louise Philippe, double red, sweet scented, good.
Cardinal, single red, fine thick petals, large flower.
Frederic le Grand, double red, extra large, fine flower.

CAMELLIÆ.

Jan. 1st, 1839.

(To be continued.)

ARTICLE VI.

A LIST OF THE MOST SPLENDID SEEDLING GERANIUMS.

BY R. LONDON.

1. Prima Donna, Foster's, beautiful flower, with fine black spot edged with orange, white centre, fine form and free bloomer.
2. Joan of Arc, Garth's, like Perfection, very dark upper petals, excellent habit, free bloomer.
3. Jewess, Foster's, fine rosy pink flower, with upper petals entirely covered with black, extra fine.
4. Una, a beautiful pure white flower.
5. Queen Victoria, Eyre's, bright purple, sweetly blended with crimson, and shaded like *Cactus speciosissima*, fine dark spot, extra large, fine flower.
6. Efulgens, Jarvis's, upper petals dark carmine with dark spot, under petals crimson, the eye white blended with a purple hue, good form and habit.
7. Gauntlet, Gains's, very large rich orange scarlet, fine fiery red spot, exquisite form, free bloomer.
8. Calypso, Gains's, beautiful large rose, fine dark spot, good form and habit.
9. Phosphorus, Gains's, very bright crimson purple, large fine spot, excellent form and habit.
10. Lord Byron, Gains's, beautiful crimson, fine spot.
11. Momus, Gains's, dark crimson finely marked, very distinct flower, good form and habit.
12. Unique, Gains's, beautiful pink flower, fine large spot, fine form and habit.
13. Morning Star, Gains's, brilliant orange scarlet, very large fine flower.
14. Midford Castle, Gains's, pale rose flower with fine spot, good form.
15. Duke of Wellington, Gains's, deep rose, fine spot, a large and very showy flower, good form.
16. Lady Dillon, Gains's, very large showy blush flower, fine dark spot, good form.
17. Zearah, Gains's, colour of Perfection, very much pencilled, fine form, a superb flower.

18. Queen Victoria, Hodge's, beautiful rose, fine spot, free bloomer and excellent form.
19. Purpurea perfecta, Hodge's, rich purple, exquisite form, fine dark spot, clear and distinct, free bloomer.
20. Lady Elizabeth Bulteel, Rendle's, beautiful delicate pink, fine form, good spot, beautiful tinge of white about the centre, free bloomer.
21. Bride of Abydos, Rendle's, light pink, good spot, excellent form, and a fine trusser above the foliage.
22. Queen Victoria, Rendle's, very light rose, large splashed Alicea spot, good form and habit.
23. Hussey Vivyan, Rendle's, fine light crimson, excellent spot, free and most showy bloomer.
24. Sir Roberet Newman, Rendle's, delicate pink, fine large spot very free bloomer, good habit.
25. British Queen, Barratt's, white ground, clear deep purple, feathered spot, form of Dennis's Perfection.
26. Queen Hebe, Barratt's, light rose ground, mulberry spot, fine large compact flower.

ARTICLE VII.

ON THE CULTIVATION OF CHLIDANTHUS FRAGRANS.

BY THE REV. F. BELFIELD, F. H. S.

HAVING been very successful in flowering *Chlidanthus fragrans* this spring and that too under three different modes of treatment it has occurred to me that you might like to be made acquainted with it.

In December last my friend Mr. Nugent gave me for the purpose of trying experiments, nine middle sized roots, which for the two preceding years had been growing in the open ground protected only by a frame in winter. On receiving them, they were put into dry earth and placed in the hottest part of the stove and kept perfectly dry, till the latter end of the month of March, when three roots were potted, watered, and kept in the hothouse; of these, two very shortly shewed their blossom buds, but only one came to perfection and did not seed.

In the end of April the six remaining roots were planted in front of the pine pit, and in the following month three of them flowered in the greatest perfection, but did not shew any dis-

position to form a seed pod. In the same border I have another bulb, which has been growing there two years, quite unprotected in winter. This in the month of June surprised me by not only throwing up a noble flowering stem, far exceeding any of the others, but also by perfecting its seed pod, and that without any artificial impregnation. As this may be a novelty, I have much pleasure in sending it to you; possibly its produce may be even hardier than the parent bulb

The border in which these plants have grown is particularly calculated for the culture of tender bulbs. *Brunsvigia Josephinæ* flowered there last autumn, with a stem nearly as large as my wrist, and a head of thirty six flowers, seeding abundantly; *Ismene calathina*, *Vallota purpurea* and many others flower annually. *Hæmanthus toxicarius* flourishes there, but has not blossomed.

F. BELFIELD.

ARTICLE VIII.

REMARKS ON THE ROSE.

(Continued from page 37.)

THE principal enemy of the rose is a species of fly, called the rose saw-fly, which pierces the tender flower-bud, and thrusts an egg into the puncture, which soon becomes a caterpillar, that nourishes itself by eating away the heart of the young flower and fruit, down to where it joins the stalk. It then loses its supply of nourishment, droops on one side and dies, whilst the insect spins itself a descending rope, by which it reaches the ground, and entombs its body in a silken shell, whilst its transformation takes place first into a chrysalis, and then a fly, which renews this work of devastation.

There are several flies of this genus, that are equally injurious to the rose tree. These flies are furnished with a very remarkable instrument, in the shape of a saw, by which they make small holes in the bark of the young branches, where they deposit their numerous eggs, which on the succeeding summer are hatched by the warmth of the sun, and nourished by the ascending sap, until they assume the appearance of small green flies, in which state they issue from the bark in such numbers, as to cover the tender

shoots and leaves, on which they rest, to suck the nutriment of the plant.

These flies may be known by a yellow body and a black head, with four wings edged with black. Another species of rose-fly has a head and breast of violet colour, with a body of yellow, and legs and wings of pale violet. It may be seen in a summer's morning, working on the branches of the rose tree, and from its sluggish nature will suffer itself to be taken between the fingers. The branches where it has deposited its eggs are so vitiated by it, that they are easily discovered, as they generally swell to a greater size than the parts above or below, and they often become black on the under side: when examined with a glass, the eggs may be discovered. These branches should be carefully cut off; and when the plants are covered with these insects, it is desirable to to brush them off with a bunch of feathers or young elder branches, as they fix themselves too fast to be washed off by water.

Insects may be destroyed by placing a chafing dish with lighted charcoal under the bushes, and then throwing a little brimstone on the coals; but this must be done in small quantities, and carefully, lest the sulphur injure the plants.

The lady bird, so named, from the points or specks on its shell wings, haunts rose bushes to feed on the small insects commonly called blights. The brier and Scotch roses are frequently attacked by the *Cynips rosæ*, which, by puncturing the bark, occasions the production of those singular and beautiful flossy tufts, which are so frequently seen on wild roses. These rose galls contain several little cavities, in each of which is a small maggot. This substance was formerly used in medicine, under the name of *Bede-guar*.

The rose is too important a flower to have been overlooked by *Æsculapius*, who in old times used every part of this plant, from the root to the yellow anthers within the blossom, for some particular purpose in medicine, as may be seen in all the ancient medical authors. The kinds of roses principally used in modern practice, are the red and the damask. The latter is considered a safe and gentle purgative for children, when administered in infusion or by way of syrup.

The red roses are astringent, and particularly so when taken before they are fully blown; conserves are made of both these kinds of roses.

Ladies may make their own milk of roses, by simply adding

one ounce of the oil of almonds to a pint of rose water, after which, ten drops of the oil of tartar is to be added.

We shall conclude our history of the rose with the lines of the Ayrshire Ploughman.

“ Never may'st thou, lovely flower
 Chilly shrink in sleety show'r!
 Never Boreas' hoary path,
 Never Eurus's pois'nous breath,
 Never baleful stellar lights,
 Taint thee with untimely blights!
 Never, never, reptile thief,
 Riot on thy virgin leaf!
 Nor even Sol, too fiercely view
 Thy bosom blushing still with dew!

May'st thou long, sweet crimson gem,
 Richly deck thy native stem;
 Till some ev'ning, sober, calm,
 Dropping dews, and breathing balm,
 While all around the woodland rings,
 And ev'ry bird thy requiem sings;
 Thou, amid the dirgeful sound,
 Shed thy dying honours round,
 And resign to parent earth
 The loveliest form she e'er gave birth.”

ARTICLE IX.

ON CHINESE GARDENS.

(Continued from page 40)

He mentions one of them, that cost upwards of two hundred thousand pounds, exclusive of the furniture; another, consisting of a hundred rooms; and says, that most of them are sufficiently capacious to lodge the greatest European lord, and his whole retinue. There is likewise, in the same garden, a fortified town with its port, streets, public squares, temples, shops, and tribunals of justice, in short, with every thing that is at Peking, only upon a smaller scale.

In this town the emperors of China, who are too much the

slaves of their greatness to appear in public, and their women who are excluded from it by custom, are frequently diverted with the bustle of the capital ; which is there represented several times in the year, by the eunuchs of the palace ; some of them personating merchants, others artificers, officers, soldiers, shopkeepers, porters, and even thieves and pickpockets. On the appointed day each puts on the habit of his profession ; the ships arrive at the port, the shops are opened, the goods are offered for sale ; tea-houses, taverns, and inns, are ready for the reception of company ; fruits and all kinds of refreshments are cried about the streets ; the shopkeepers teize the passengers to purchase their merchandize, and every liberty is permitted ; there is no distinction between persons, even the emperor is confounded in the crowd ; quarrels happen—battles ensue—the watch seizes upon the combatants, they are conveyed before the judge, he examines the dispute and condemns the culprit, who is sometimes very severely bastinadoed, to divert his imperial majesty, and the ladies of his train. Neither are sharpers forgot in these festivals, the noble profession is allotted to a good number of the most dexterous eunuchs, who, like the Spartan youths of old, are punished or applauded, according to the merit of their exploits.

The plantations of their autumnal scenes consist of many sorts of oak, beech, and other deciduous trees that are retentive of the leaf, and afford in their decline a rich variegated colouring ; with which they blend some picturesque forms that art or nature can suggest. Buildings, sculptures, and paintings are added to give splendor and variety to these compositions ; and the rarest productions of the animal creation are collected to enliven them ; nothing is forgot that can either exhilarate the mind, gratify the senses, or give a spur to the imagination.

Their scenes of terror are composed of gloomy woods, deep vallies inaccessible to the sun, impending barren rocks, dark caverns, and impetuous cataracts rushing down the mountains from all parts. The trees are ill formed, forced out of their natural directions, and seemingly torn to pieces by the violence of tempests ; some are thrown down, and intercept the course of the torrents ; others look as if blasted and shattered by the powers of lightning : the buildings are in ruins ; or half consumed by fire, or swept away by the fury of the waters ; nothing remaining entire but a few miserable huts dispersed in the mountains ; which serve at once to indicate the existence and wretchedness of the inhabi-

tants. Bats, owls, vultures, and every bird of prey flutter in the groves; wolves, tigers and jackalls howl in the forests; half-famished animals wander upon the plains; gibbets, crosses, wheels, and the whole apparatus of torture, are seen from the roads; and in the most dismal recesses of the woods, where the ways are rugged and overgrown with poisonous weeds, and where every object bears the marks of depopulation, are temples dedicated to the king of vengeance, deep caverns in the rocks, and descents to gloomy subterraneous habitations, overgrown with brushwood and brambles; near which are inscribed, on pillars of stone, pathetic descriptions of tragical events, and many horrid acts of cruelty, perpetrated there by outlaws and robbers of former times; and to add both to the horror and sublimity of these scenes, they sometimes conceal in cavities, on the summits of the highest mountains, founderies, limekilns. and glass-works, which send forth large volumes of flame, and continued clouds of thick smoke, that give to these mountains the appearance of volcanoes.

Their surprizing or supernatural scenes are of the romantic kind, and abound in the marvellous, being calculated to excite in the mind of the spectator, quick successions of opposite and violent sensations. Sometimes the passenger is hurried by steep descending paths to subterraneous vaults, divided into stately apartments, where lamps which yield a faint and glimmering light discover the pale images of ancient kings and heroes, reclining on beds of state; their heads are crowned with garlands of stars, and in their hands are tablets of moral sentences; flutes, and soft harmonious organs, impelled by subterraneous waters, interrupt at stated intervals, the silence of the place, and fill the air with solemn sacred melody.

Sometimes the traveller, after having wandered in the dusk of the forest, finds himself on the edge of precipices in the glare of day-light, with cataracts falling from the mountains around, and torrents raging in the depths beneath him; or at the foot of impending rocks, in gloomy vallies overhung with woods; or on the banks of dull moving rivers, whose shores are covered with sepulchral monuments, under the shade of willow, laurel, and other plants sacred to Manchew, the genius of sorrow.

His way now lies through dark passages cut in the rocks, on the sides of which are recesses, filled with colossal figures of dragons, infernal furies, and other horrid forms, which hold in their mon-

strous talons, mysterious, cabalistical sentences, inscribed on tables of brass, with preparations that yield a constant flame, serving at once to astonish and guide the passenger; from time to time he is surprized with repeated shocks of electrical impulse, with showers of artificial rain, or sudden violent gusts of wind, and instantaneous explosions of fire: the earth trembles under him by the power of confined air, and his ear is continually struck with many different sounds, produced by the same means, some resembling the cries of men in torment,; some the roaring of bulls and the cries of ferocious animals, with the yell of hounds, and the voices of hunters; others are like the mixed croaking of ravenous birds, and others imitate thunder, the raging of the sea, the explosion of cannon, the sound of trumpets, and all the noise of war.

His road then lies through lofty woods, where serpents and lizards of many beautiful sorts crawl upon the ground, and where innumerable apes, cats and parrots, clamber upon the trees, to intimidate him as he passes; or through flowery thickets, where he is delighted with the singing of birds, the harmony of flutes and soft instrumental music; sometimes in this romantic excursion, the passenger finds himself in spacious recesses, surrounded with arbors of jessamine, vine and roses, or in splendid pavilions, richly painted and illuminated by the sun; here beauteous Tartarean damsels, in loose transparent robes, that flutter in the scented air, present him rich wines, or invigorating infusions of Ginseng, and amber, in goblets of agate; mangostans, ananas, and fruits of Quangsi, in baskets, of golden filagree; they crown him with garlands of flowers, and invite him to taste the sweets of retirement, on Persian carpets, and beds of camusathskin down.

These enchanted scenes always abound with water-works so contrived as to produce many surprising effects; and many splendid pieces of scenery; amongst which their Kia-king, or water palaces, are the most extraordinary; they consist of many colonades, arcades, galleries, and open cabinets, formed of smooth sheets and jets of fair water, artfully rising or falling over grounds of different coloured glass, or over innumerable lamps, which varying the tints of the liquid, give to the structures the appearance and lustre of diamond, sapphire, emerald, ruby, amethyst and topaz.

(To be continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

1. **ERICA TRICOLOR, v. SUPERBA.** Superb Three coloured Heath.
(Pax. Mag.)

ERICACEÆ. OCTANDRIA, MONOGYNIA.

A good edition to this most charming and interesting genera; it was raised from seed supposed to have been saved from *E. Tricolor*, by Messrs Rolinson's of Tooting; it bears a striking similitude to *E. Tricolor, v. Major*, but differs by the tube of the flower being longer and larger, and presents a considerably more showy appearance.

2. **MAXILLARIA TENUIFOLIA.** Slender leaved Maxillaria.
(Bot Reg. 8.)

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

Introduced from Mexico by Mr. Hartweg, a collector of the London Horticultural Society, who found it growing upon trees in the neighbourhood of Vera Cruz. It is very probable, as it has not been produced in collections from the interior of the country, that it is entirely local.

It is a very pretty species with yellow, green, and scarlet spotted blossoms; it is of easy culture, and as Dr. Lindley observes, "succeeds in a warm damp stove in a pot, with a block of wood thrust into the soil, and the long branching Rhizama tied to it; it grows almost equally well when tied to a wooden block, and suspended from the rafters of the stove; it bears without injury a quantity of water at its roots, and must also be freely syringed over head. It is easily multiplied as it throws out numerous pseudo-bulbs and roots, which if taken carefully off will soon become vigorous growing plants."

3. **SOPHRONITIS GRANDIFLORA.** Large flowered Sophronitis.
(Bot. Mag. 3709.)

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

Discovered growing at a considerable elevation on the Organ mountains, by Mr. Gardener, who sent it home in 1837. It is a handsome variety producing large flowers of an uniform red colour, inclining to orange, with darker red streaks. We have no doubt but it would succeed well with similar treatment to that afforded *Cattleyas*, &c.

4. **STATICE ARBOREA.** Tree Statice.

PLUMBAGINACEÆ. PENTANDRIA, PENTAGYNIA.

Introduced by P. B. Webb, Esqr., it is one of the most local and rare of all known plants. It is only on a few rocks called the Islets of Burgado, which seem as if broken off from the coast of Teneriffe by some violent convulsions of nature, carrying with them on their summits a little earth, that this rare plant is found, surrounded on every side by the ocean, and only a few yards removed from its surface.

It is highly ornamental, producing large clusters of flowers of a light blue colour, it is best adapted for planting out in the bed of the conservatory, and grows well in a mixture of heat and loam; it flowers from April to June. Plants may be obtained at most of the principal Nurseries.

5. PHILIBERTIA GRANDIFLORA. Large flowered Philibertia.

(Pax. Mag.)

ASCLEPIADACEÆ. PENTANDRIA, DIGYNIA.

A very pretty and interesting climbing shrub, of which we possess a drawing made during autumn, and it is our intention shortly to figure it in the 'Cabinet,' when we shall make further observations upon it.

6. STANHOPEA TIGRINA. Tiger flowered Stanhopea.

(Bot. Reg. No. 1, 1839.)

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

This truly beautiful species of Stanhopea was originally received from the neighbourhood of Xalapa, by Messrs. Low & Co., of the Clapton Nursery; and it is now we believe cultivated in several collections. This most singular novelty which is displayed in the formation of flowers by the various tribes of plants, none possess that remarkableness in so striking a degree as the tribe under consideration; and our present species not only possess eminent singularity, but it is beautiful in its colour, and so strikingly blotched and spotted, together with its delightful fragrance as at once to become a subject of peculiar attention. We doubt not but it will soon be in the hands of many growers, as Stanhopeas are generally luxuriant in growth. The treatment required for this plant is similar to the other species, that is, sandy peat, with plenty of drainage, and small pieces of decayed wood, observing to raise the plant considerably above the level of the rim of the pot, otherwise the flowers would in all probability be confined within the pot as the flower stalks shoot downwards. Care must also be taken to allow the plant a proper season of rest when done growing, which will be a means of considerable acceleration to its vigour, during the forthcoming season.

ERRATUM. To the kindness of a correspondent we are indebted for the correction to our notice of *Hovea Manglesii*, and *Elichrysum macranthum*, December No. Vol. VI. We understand that these flowering plants had been introduced into this country by Robert Mangles, Sunning Hill, Berks, but our correspondent informs us, that the merit of introducing them, as well as a considerable number of the most showy of recent introduced plants, belong to Captain Mangles, R. N. That gentleman has been assiduously engaged for the last eight years, in introducing seeds from that most interesting portion of the globe, the Swan river colony. To accomplish so desirable an object, Captain Mangles went expressly on purpose, to see the Flora of that country, and resided there for some time.

To contribute to the pleasures of those interested in beautiful flowering plants, in this country, Captain Mangles has expended a very considerable sum of money; and equally so in procuring and sending out presents of plants, books, Maps, &c. from this country, to Botanists resident at the Swan River colony, Ceylon, South Australia, Valparaiso, and other places, with a view to stimulate them to collect and send seeds, &c. to this country.

Immediately on receiving packets of seeds, with a liberality which entitles Captain Mangles to the thanks of every botanist in this country, they are distributed gratuitously to the principal nurserymen, and other plant establishments belonging to the Nobility and Gentry. We wish those persons having connexions in the distant portions of the globe would imitate the very laudable zeal of Captain Mangles, introducing seeds or plants, and which in many instances might be procured at but a small expence, we should soon have plants in our collections of many splendid flowers, of which we have only had descriptions, or a specimen sent us.—Conductor.

ANEMOPSIS CALIFORNICA. We saw this plant at the Epsom Nursery, producing its pretty blue flowers of a *Ranunculus* form. The plant is a dwarf grower, but flowers freely.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

A LIST AND PRICES OF THE BEST KINDS OF POLYANTHUSES.—Will the Editor, or some reader of the "Floricultural Cabinet," be kind enough to give me a list of the names of the best prize Polyanthuses, also where they are most likely to be obtained, and at what probable price.

AN AMATEUR, AND CONSTANT READER OF THE CABINET.

London, Jan , 7th, 1839.

ON WATERING PLANTS, &c. WITH WATER FROM METAL OR CAST IRON PIPES.—Having a greenhouse as well as two houses for the cultivation of Grapes, Pines, &c., and which are heated with hot water; I should feel obliged if you, or any of your numerous correspondents would answer the following question. (Perhaps Mr. Thompson who has wrote a few such valuable pages in the "Cabinet," and who, I believe has published a Treatise on the Hot Water system, would do me the favour; or any one who understands a little of chemistry.

The supply of water for the use of these houses is obliged to be drawn from the hot water pipes, and I have more than once attempted to hold an argument with my employer on the bad effects which will be produced from such practice, and have urged the necessity of a proper cistern to supply the plants, Grape Vines, &c., but yet have not been successful, as he believes water from the pipes to be full as beneficial to vegetation as any other. My opinion is, that water after being boiled, must have lost the greater portion of its nutritive properties, in addition to rusting all bunches of Grapes that may be syringed by such water; however when the question is answered, I shall feel more satisfied, and then let the matter rest.

Hamburg, Nov., 27th, 1838.

ON VIEUSSEUXIA PAVONICA.—Our old and respected correspondent "Burriensis," whose letter we published in our Number for April, complains that no answer has been given to his enquires respecting the above bulb, and he will feel much obliged by being informed where it can be procured; it is evidently different from the *V. Glaucopis*, of which he has many bulbs, which flower every year.

AITON's Epitome of the 'Hortus Kewensis,' is by mistake called Reivensis in the above letter of Burriensis.

LOUDON's 'Hortus Britannicus,' page 20, *Vieusseuxia*.

No. 1358. *V. Pavonica*, *Moræa Pavonia*, *Iris Pavonia*, Peacock. Introduced in 1790; coloured in Bot. Mag., table 1247.

No. 1361. *V. Glaucopis*, *Iris Pavonia*, Grey eyed. Introduced in 1776; coloured in Bot. Mag., table 168.

SWEET's 'Hortus Britannicus,' page 498, *Vieusseuxia*.

No. 2. *V. Pavonia*, Peacock, *Moræa Pavonia*, *Iris Pavonia*. Introduced in 1790; coloured in Bot. Mag., table 1247.

No. 5. *V. Glaucopis*, White flowered. Introduced in 1776; coloured in Bot. Mag., table 168.

The colours of the first are stated to be orange, &c. } Called *Moræa* in CURTIS's Bot. Mag.
The colours of the second are stated to be white and blue }

AITON's Epitome of 'Hortus Kewensis,' edition of 1814, page 16, Moræa. Pavonia, Peacock. Bot. Mag., table 1217; introduced in 1790.

I can find nothing in AITON answering to *V. Glaucopsis*, under any name, either in the body of the book, the addenda, or index synonym.

'Hortus Cantabrigiensis,' tenth edition, by LINDLEY. 1823, page 21, Moræa.

No. 11. *M. Pavonia*, Peacock. Bot. Mag 1217; introduced in 1790.

I cannot find anything answering to *V. Glaucopsis*.

SWEET's 'Hortus Suburbanus Londinensis' 1818, page 11, Moræa.

No. 4. *M. Pavonia*, Peacock. Introduced in 1790; Bot. Mag. 1247.

Nothing answering to *V. Glaucopsis*; but, from the 'Hortus Britannicus,' of SWEET & LOUDON, it is clear that they are different bulbs, introduced at different periods, differently coloured in the Bot. Mag., table 1247, and table 168; and yet I cannot for love or money procure the *V. Pavonica*, nor have any information respecting it. The London Seedsmen or Nurserymen know no distinction, and still in their catalogues retaining the old name and not *Vieusseuvia*. I cannot find the word *Iris Pavonia* in any catalogue, but that in CUSHING's 'Exotic Gardener,' page 211, the third line from the bottom of the second column. (Printed 1814.)

I have no other catalogue to which I can refer, but it is very singular that it is (the *Glaucopsis*) not mentioned in AITON, DONN. & SWEET's 'Horticultural Suburbanus.'

REMARKS.

ON CONVEYING GRAFTS OF TREES. Professor Jussone has ascertained that the best mode of conveying grafts of trees, cuttings of vines, &c., is to place them in a tin case or cylinder filled with honey; the honey hermetically excludes the air, and cuttings so preserved, will vegetate many months after they have been packed. [See Conversations on Nature and Art, by a Lady, Vol. i. p. 60.]

ON THE SCOTCH AND LARCH FIRS. The late Duke of Atholl ascertained that whilst the Scotch Fir only thrives at an elevation below nine hundred feet in the north of Scotland, the Larch ascends to one thousand six hundred feet, and may ascend still higher. At Leach Hills in Lanarkshire Scotch Firs will not grow, and all other trees are stunted, excepting Larches, which thrive luxuriantly where protected. The heaths in Scotland when they are not cultivated, may be adorned with wood; and almost all the hills in England may have Larches growing on their summits. Instead of importing timber from other countries, we may then have more than we require; and thus obtain new resources from being the exporting nation. [Compressed from an Article in the 'Saturday Magazine,' Dec. 15th, 1838, quoted from the 'Magazine of Popular Science.']

ON RANUNCULUSES. We would take the opportunity here of drawing attention to Tyso and Son's advertisement, of Ranunculuses. It is not, of course, the case that all situations are favourable for the successful cultivation of this splendid flower; those, however, who possess a rich dry and rather sandy soil, and are in any way concerned in the production of showy flowers, will not be disappointed in the return usually made by a well grown bed of Ranunculuses, when in full bloom.

Mr. Tyso has also favoured us with his sheet catalogue, containing descriptive lists of Ranunculuses, named sorts, and seedling Tulips, Geraniums, Carnations, Picotees, Pinks, Dahlias and Pansies. This is the best arranged, the most comprehensive, and explicit sheet catalogue we have seen. It contains a table of abbreviations, by which the colours are minutely and clearly described.

THE GARDENS
OF THE
ROYAL BOTANIC SOCIETY OF LONDON,
INNER CIRCLE, REGENT'S PARK.

(Continued from page 16.)

Mr. D. R. Hay, of Edinburgh, an able writer on the subject, gives testimony to the following effect.—“The vegetable kingdom presents the best examples for study, and a taste for ornamental design is not only to be acquired from the rare productions of the botanic garden, but both grace and elegance of form are to be found in the common dock, the thistle, the fern, or even in a stalk of barley. When students come to examine the ornamental remains of Athens and Rome, they will find themselves familiar with the source from which such designs were derived, for the ancients undoubtedly owed their excellence in ornamental art to the study of nature. Dr. Ure attributes the excellence of the French to the pursuit of art through the medium of nature.”

The Chancellor of the Exchequer recently expressed himself in the House of Commons to the following effect:—“He thought it a disgrace to this country, possessing as it did so many colonies, and such vast means of collecting botanical specimens from all parts of the earth, that it should be without an extensive botanic garden, for the benefit of medical students and other scientific persons.”

While the importance of botanical study is such in the lower walks of art, it is not of less necessity in its higher and more unequivocal branches. The delineation of the flower has in all countries afforded many fine paintings, a branch in which ladies have been particularly successful, and in which it was the pride of Rubens to excel equally as in the other departments of art. In all that relates to decoration, however, its application is of primary importance. Foliage is the basis of the arabesques of Pompei, and those of Giulio Romano; and while an increasing inclination is exhibited for these styles among the patrons of art, the only true source of their power should not be neglected. The details of architecture have, even in the severest nations, derived their origin from this source, and the palm leaf of the Temple, and the lotus of Egypt, were not less favourite with their respective admirers than the variegated foliaged ornaments of the Greeks. These latter, in the acanthus and the honeysuckle, found a harmony and beauty which they made productive of the greatest effect, while the Gothic architects, in the profusion of their architectural enrichments, displayed even greater variety and research.

Although we who are the most important commercial nation of the world, have been thus negligent in our metropolis, foreign nations, to whom botany is of far less pecuniary interest, have not been unmindful of encouraging its study. Whether for medical purposes, or for those purely scientific, or on a more extended scale, there is scarcely a town in Europe without its botanic garden, and the extent of these establishments, and the efficiency of some of them, is enough to cast shame on the negligence we have hitherto displayed. The garden at Padua appears to have been the first established in Europe, and was founded in the early part of the sixteenth century, and shortly after others were formed at Pisa, Florence, and Bologna. Since that period the progress has been such, that there is hardly a city in Italy without its botanic garden, although considerable difficulty is felt there on account of the necessity of supplying water by irrigation. The Dutch early cultivated this department, and from the garden of Amsterdam supplied the coffee plant from which all those in the French colonies have been propagated. In France, the first establishment of this kind was formed at Montpellier in 1597; but, by far the best known, and the most important in Europe, is that of the Jardin des Plantes at Paris, founded in

1610. This institution merits particular notice, especially as it is a central one, and has long enjoyed the benefit of a regular administration. Its objects are twofold: first, to collect useful and remarkable plants from every part of the world, and to distribute them as far as practicable, to every part of France, and to other countries; and secondly, to form a school of botany and vegetable culture. - Plants are brought to the garden from all countries by a universal correspondence; by particular naturalists, sent out at the expense of the nation; and by the general protection of the government, which allows entrance, free of duty, and general carriage, free of expense, to all plants brought for the use of the garden, by whatever kind of vessel. Plants received in Paris are propagated without loss of time, and distributed to all the botanic gardens in France, and to such of the colonies where they may be useful; and, lastly, they are sent to foreign correspondents in return for similar favours. The provincial botanic gardens, of which there is one at least in every department, distribute them again among the eminent proprietors and cultivators in their neighbourhood. Instruction is given by lectures, to which the public are admitted, and by practical demonstrations. In Germany, botanic gardens are attached to every university, and in Austria the science has met with the greatest encouragement from the enlightened munificence of the sovereigns, who have neglected no opportunity of sending exploratory expeditions to collect plants. The garden at Berlin is esteemed the first in Germany. Those at Munich displays equal taste with the other foundations of the king of Bavaria. In Saxony and Wirtemberg are admired gardens; and this latter country possesses a private society of subscribers, of £1 each, for sending out travellers to collect plants in every part of Europe. In Switzerland there is a botanic garden in every canton. In Sweden, the establishment at Upsal is celebrated as having been under the direction of Linnæus. In Russia, the botanic garden of St Petersburg, containing sixty acres, is one of the largest in Europe, and is maintained with a munificence worthy of the scientific patronage of that empire. A considerable part of it is devoted to the cultivation of medicinal plants for the hospitals; and it is a central establishment for the use of the empire. In Spain, among others, is that of Madrid, containing forty-two acres, which, like the great garden of St. Petersburg, cultivates medicinal plants. There are numerous other gardens in different parts of the world, as will be seen by reference to the statistical table annexed.

(TO BE CONTINUED.)

NEW OR RARE PLANTS.

CHOROZEMA DUKSONI. Named in compliment to the respectable nursery-men Messrs. Dickinson's of Edinburgh. It is stated by those gentlemen to be the finest species yet introduced, we saw it in several of the London nurseries, but not in bloom. The plant is of a bushy habit, foliage small and fringed; it is a very pretty plant when not in bloom, but as all the other species are handsome, we doubt not but this will be found deserving a place in every greenhouse.

PHYSOLOBIUM ELATUM. A beautiful flowering greenhouse plant, very much resembling *Kennedia coccinea*; it has been received from South Australia, and will prove an interesting addition to that lovely tribe of plants to which it is so closely allied. We saw it at the Tooting Nursery.

OXYLOBIUM CAPITATUM. A very fine species recently introduced, producing fine heads of yellow and crimson flowers, rendering it a very desirable plant for the greenhouse. It is grown at the Tooting Nursery.

FLORICULTURAL CALENDAR FOR MARCH.

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

AMARYLLIS'S—and other liliaceous bulbous plants which have been kept dormant may now be re-potted, 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, replacing 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 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.

HYDRANGES—cuttings may now be taken off, cutting off the tops of any shoots that have very plump leading bulbs, 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, bloom one fine head each, 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 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 TREES—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.

TUBEROSES—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.

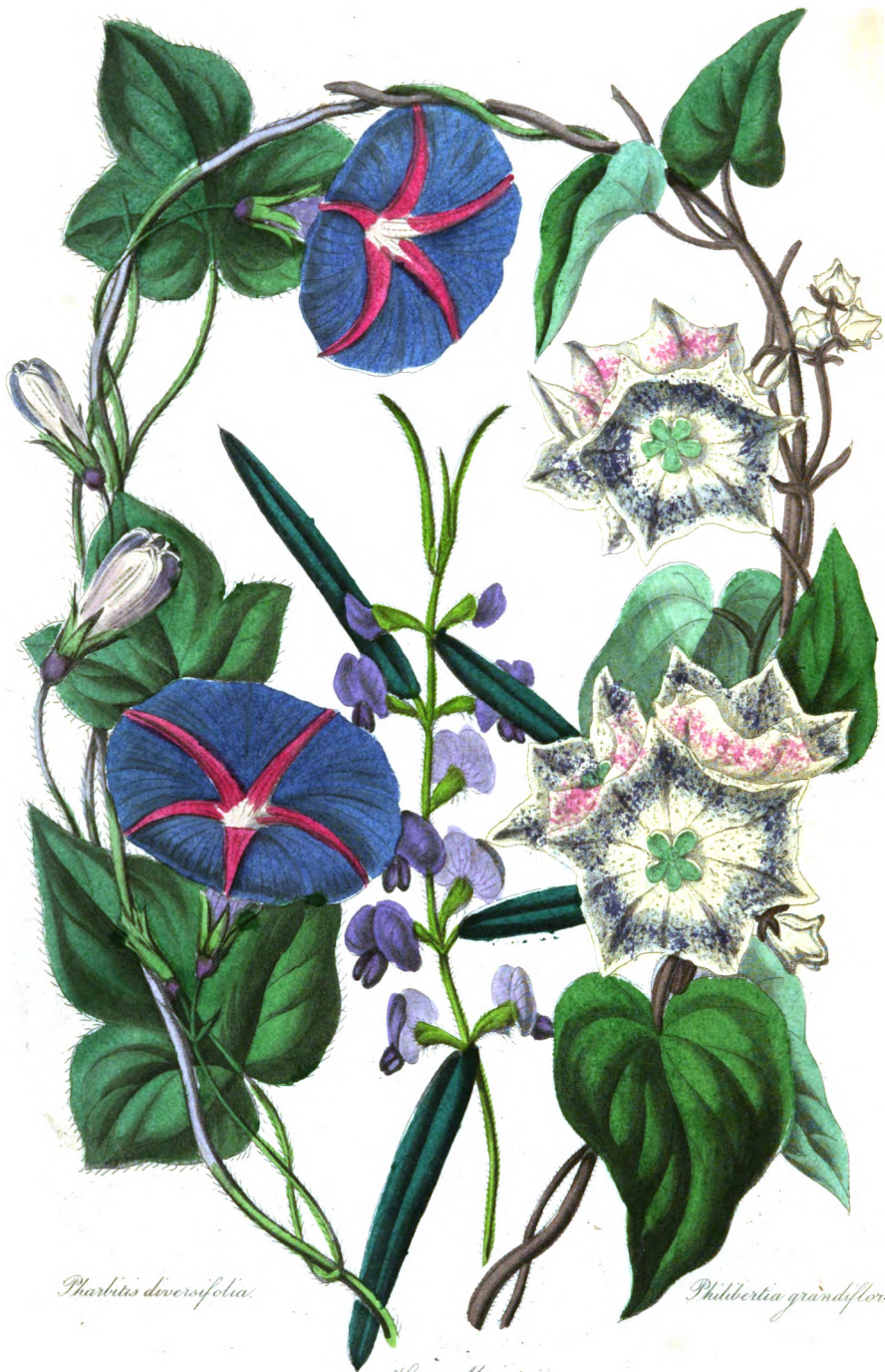
TULIPS—at this season such as happened to be affected by canker will appear sickly, the roots should be examined, and the damaged part be cut clean out. If left exposed to sun and air, the parts will soon dry and heal. Avoid frosty air getting to the wound by exposure.

REFERENCE TO PLATE.

CHILODIA SCUTELLAROIDES. A greenhouse plant, which, when in full bloom is very interesting and showy; the plant is a most profuse bloomer, and continues to flower for a considerable time. We saw it at the Epsom Nursery during the last summer.

ONCIDIUM FORBESII, Mr. Forbes's. This very splendid stove orchideous plant bloomed at Woburn Gardens during the past summer, and a friend of ours states, that when he saw it, it was the most striking of the tribe he ever saw. It was discovered on the Organ Mountains, in 1837. We are glad that it has been named in compliment to the very talented and excellent gardener at Woburn Abbey, (Mr. Forbes,) under whose skilful management, the gardens and grounds have attained a high degree of perfection.

2/26/1997



Pharbitis diversifolia.

Philibertia grandiflora

Ipomoea mangrove.

THE
FLORICULTURAL CABINET,

APRIL, 1st, 1839.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTURE OF THE DAHLIA.

BY A CONSTANT READER.

THE Dahlia is allowed to be one of the most splendid plants that we know of, and is justly prized by every denomination of persons, whether they rank in the higher classes of society, or to those of more humble pretensions, whether as it regards the brilliancy and variety of colour in the flowers, the duration of time it remains in bloom, and its fine appearance, it certainly stands in each particular unrivalled, and merits a situation in every garden, and it is an additional recommendation, that it is both easily cultivated and propagated.

The best mode of treatment practised with the Dahlia has been requested through the medium of publications; and although I am not so conceited as to think the method I practice is the best, yet having been so successful as to flower the plants to the satisfaction of hundreds of persons who have seen them, I venture to give a brief and plain detail of my practice; in doing which, I shall state the mode I have adopted in raising a number of handsome seedlings, as well as the subsequent culture.

New varieties are raised from seed, and with a view to raise the best kinds, artificial impregnation is required. With a small

pointed camel's hair pencil, I take the farina from one flower to another. If I have a handsome compact flower that I wish to improve in colour or size, I have recourse for farina from one of the colour or form I desire; as it is very nearly to be calculated what a mixture of any two sorts will produce. The flower I intend to impregnate upon, I cover with a fine gauze bag, a day or two before the florets expand. When the first and second tier of florets are fully opened, I then impregnate them, and retain the gauze-bag over them for a week longer, and I then mark the flower which I have operated upon. In collecting the seed in autumn, I only gather the two tiers; the seeds from the outside tiers are always the finest, and ripen the best. The use of the bag is to prevent impregnation from bees. When any flower is semi-double, I uniformly take them away; so that I neither take farina from them, or save them for seed.

The seed is sown about the first of February, and placed in a hot-bed frame; when sufficiently strong for transplanting, the plants are removed into small pots, one in each pot, and kept in a green house or cool frame. At the end of May, they are turned out entire, into a deep and rich soil. They then flower freely by the end of July, and being forwarded as stated, the roots become perfected by the autumn, so as to keep plump through the winter.

The method I pursue with old roots, is to place them upon a moderate hot-bed, or in a mushroom-house, that has a little heat. I just cover the roots with some fine sifted rotten tanners bark, in this way they speedily push roots. I usually do this in the first week in February, which I consider quite early enough, as my plants get to two or three feet high, by the period of planting in the open border. I have known some persons push the roots as early as the beginning of January, but in consequence of those being deprived of sufficient air, which is dangerous at this season to be given, they were generally drawn up weakly, and seldom bloom well.

When the roots have pushed shoots about four or six inches, I take them out of the bark; such roots as can be divided, now most readily do so. If any of the roots push more shoots than one, and I wish to increase the sort, I cut off each shoot close to the old root: these I insert in pots, filled with fine light sandy soil, placing them round the sides of the pots, and putting them into a hot-bed frame, or if it is more convenient, I set them off upon a

hot-bed covered with four inches of suitable soil; in either case they will strike root in six or eight days. In cutting off the shoots close to the old roots, I find they strike much more freely than if cut crossways under a joint, in the upper part of the shoot, although there is a possibility of their striking under that mode of treatment.

When the cuttings have pushed roots, I pot each into a separate pot, and the soil I use for potting my Dahlias in, is a light rich one. When the Dahlias are potted, whether old roots or cuttings, I place them in a peach-house or vinery, till they push to eight or ten inches long, then I have them removed to a very airy situation in the garden, and where I can have them protected if the weather should become unfavourable.

As soon as I consider the danger from frost is over, which is seldom before the end of May, I turn the plants out entire, planting them in sheltered sunny situations.

The soil of my borders is a strong loam, eighteen inches deep. I manure the border well every spring before planting, and at the same time add about an equal part of good fresh soil. In this they flower profusely, particularly the plants raised from cuttings.

The plan of training the plants to a fence, appears to me to be the best mode of securing them, for when tied up to stakes, the wind frequently twists them, and destroys their tops, but the other mode secures them against all winds, and exhibits the flowers to the greatest advantage; three or four stakes placed angularly round the plant, and the plant tied to them, also answers the purpose.

When the blooming season is near its close, I lay about four inches thick of rotten bark, or leaf soil, over the roots, and for two feet round the stem of each plant; this is done to prevent the crown of the plant being damaged by sharp and sudden frosts. I have seen many Dahlias that were exposed, have the crowns so injured by sudden frost, as not to push at all the following spring, although the remainder of the root was sound.

When I take up my roots, it is on a dry windy day, if possible, shaking off the soil carefully, so as not to twist the roots. I have them removed to an airy situation in a shed, or in the mushroom-house; there placed singly over the floor or shelves, till the soil remaining on the roots is dry. When that is the case, I lay them on shelves, secure from damp or frost, and cover them with dry

sifted tan, manure from a mushroom bed, or some material of this kind; if this mode is adopted, they will keep perfectly sound and fresh. Great care must be taken, that whatever is used for covering the plants must be completely dry.

A CONSTANT READER.

ARTICLE II.

ON THE GERMINATION OF SEEDS.

BY A BOTANIST.

THE subject of the present essay concerns a new method of furthering the germination of seeds, in which I have made some experiments, which, I think, may be beneficial if better known; and for the proper understanding of which it will be necessary to preface the subject by a short explanation of the theory of the reproduction of plants. In flowerless plants, the class Cryptogamia of botanists) reproduction takes place by means of homogenous masses of cellular substances, called sporules or spores; in ferns, on the back of the leaf; in mosses, in small capsules or urns; and in lichens and fungi, from tubes buried in the substance of the plants. Unlike the germ of flowering plants, they contain no cotyledon, radicle, or plumule; and instead of growing uniformly from two constant points of their surface, they are mere masses of cellular substance, and send forth their roots from whatever place happens to have been covered, and the stem from that portion exposed to light. In the more simple forms of fungi and lichens, the subject is involved in such mystery, that many have thence contended for equivocal generation, or a common matter of vegetation, which issues into various forms, according to accidental circumstances. It is, however, more consonant to observation, and to the method and wisdom displayed by the Creator in those parts of his works, more tangible to our senses (especially when we take into consideration the millions of millions of sporules contained in a single fungus, as the common puff ball, or the many hundreds in the common blue fungus of the cheese,) to suppose that they are reproduced by myriads of microscopic pores floating in the atmosphere, dispersed by currents of air, and only called into existence when the accidental circumstances of moisture, putrefaction, &c., necessary to their developement are present.

In flowering plants reproduction takes place by means of the germ or embryo contained in seeds, and in the tubers and bulbs of the root. In the seed, the germ develops into radicle or root, and plumule and stem, between which is an axis connecting the two, and communicating with the cotyledons or seed lobes, which contain the food destined to nourish the young plant till able to extract nourishment from the ground for itself. A deposition of this food is likewise laid up in the cells of the bulb or tuber, and to it the general name of albumen, from its fancied resemblance in functions to the white of an egg, has been given. It is generally enclosed in a hard or bony case, for protection from injury, (but which it is not necessary to the growth of the germ,) and consists of mucilage or gum, sugar, and fecula or starch, which are all convertible substances, consisting of different proportions of carbon, hydrogen, and oxygen, which by chemical analysis, have been found to stand as under, viz.

	Carbon.	Oxygen.	Hydrogen.
Gum to consist of	42:23	50:64	6:93
Sugar - - -	42:27	50:63	6:90
Starch - - -	43:55	49:68	6:77

By the continued deposition of carbon, very ripe seeds and tubers contain more starch or flour than unripe seeds: and from the difficulty of reducing starch again into mucilage, which must take place in the vegetating process, before it can be rendered a soluble food for the young embryo, ripe seeds will be found to keep longest, and to survive accidents of bad treatment better than unripe seeds; which, however, from having their food in a state more easily rendered soluble, are found both in seeds and tubers to spring more quickly, and if sufficiently far advanced, with more vigour than ripe seeds or tubers. In the process of germination, when carried on in the usual manner, if a seed is picked up, the cotyledons will be found filled with a soft mucilaginous substance, generally of a milky colour and sweetish taste. This is the food of the young embryo reduced into a soluble state, and is conveyed through the vessels of the cotyledon to the axis, and thence to the radicle and stem. On the quantity of this food furnished depends the vigour with which the young plant will shoot; and hence the best means of reducing the albumen of the seed or tuber into a soluble food in the speediest manner, and in the greatest quantity, is the greatest desideratum

to arrive at in prosecuting our enquiries after the best method of furthering the process of germination. The starch and sugar must be reduced to mucilage; and from an inspection of the table, it will be found necessary that carbon must be abstracted, and oxygen and hydrogen added; and, accordingly, it is found that in germination, carbonic acid gas is given off, the air is deprived of part of its oxygen, and water yielding hydrogen and oxygen, is absorbed. Air, heat and moisture are all necessary, and likewise the exclusion of light. The air yields the oxygen necessary in abstracting the carbon in the state of carbonic acid, from starch, and converting it into sugar and mucilage, which may be familiarly illustrated in the sweetness of malting grain and germinating potatoes. A heat of 160 degrees is required to reduce starch to solubility; and it is not generally known how such heat is generally acquired. The disengagement of the oxygen sets caloric free, and hence seeds moistened and thrown into a heap to germinate, are found to generate a great heat. Alkalies are also found useful in furthering the process, and are generated whilst it is going on. Perhaps, also, the starch is more soluble in its state of combination than when extracted; and, to all perceptible causes, we must add that vital energy so every where necessary, and so little known.

In soils which have been properly prepared, by being broken into very small particles, confined air is generated, which so increases the heat as to be perceptible even to the touch; and hence the benefits of well-pulverized ground, and of covering with pieces of glass, and flower-saucers, &c. to increase the heat and retain the moisture, and thus further greatly the vegetation of the seeds; and hence the different quantities of heat and moisture requisite for seeds, according as they are dry and farinaceous, or oily and mucilaginous. Very dry farinaceous seeds, as the acacia, and others of that tribe, are benefitted by immersion in boiling water; and hence the reason why either heat or moisture of itself is not sufficient, and even hurtful if carried to excess, either in the germination of seeds, or the bud or embryo of the tuber of the potato, as late illustrated in the three last consecutive springs, in which, from the drought and heat acting on the substance of the newly cut tuber, without the advantage of moisture, the albumen has not been reduced into a soluble food, or in such small quantities as not to be sufficient to produce the development of the bud or shoot.

I now come to that part of the subject where, from the explanation already given, I hope it will be in my power to explain the reasons why I was induced to try the experiments I set out with taking notice of, and which I hope will be found, on proper trial, to be very beneficial. It is to seeds damaged by being too long kept in a dry state, or hurt by too much fire heat, or heat of the sun, that my attention has been principally directed. It has been often recommended to apply substances readily yielding oxygen; and I have myself tried oxalic acid frequently, but without any perceptible effect; and from experiments lately instituted, it appears that more than the quantity of oxygen, or about one-third contained in common air, is not beneficial, though this proportion is absolutely necessary.

Experiments lately made by Mr. Charles Maltuen, and narrated in Brewster's Journal of Science, he found that the negative or alkaline pole of a battery caused seeds to vegetate in much less time than the positive, and he was thence induced to experiment on seeds in glasses filled with acetic, nitric, and sulphuric acids, and also in water rendered alkaline by potash and ammonia. In the alkaline the seeds vegetated in thirty hours, and were well developed in forty; while in the nitric and sulphuric, they took seven days; and even after a month, they had not begun to grow in the acetic acid. The great benefit of the alkalies in hastening the germinating process being thus so apparent, I was induced to experiment on lime; a very easily procured alkali, and which I reckoned to be more efficient than any other, from the well-known affinity of quick, or newly slacked lime for carbonic acid. Lime, as taken from the quarry, consists of carbonate of lime, or lime united to carbonic acid: and, in the act of burning, the carbonic acid is driven off; and hence the great affinity of newly slacked lime for carbonic acid. I depended therefore, on this affinity to extract the carbon from the starch assisted by moisture, in aid of the heat disengaged in this process, and also in the above well attested effects of alkaline substances in hastening the process of vegetation; and in the spring of 1835 having a quantity of old spruce fir seed, I was determined to try the experiment.

It is well known by nurserymen, that the seed of the spruce fir will scarcely vegetate the third year, although kept in the cones; but, in the present instance, the seed had been out of the cones during all that time; and the year before, or second year of the seed, had been so weak, that although well damped, and

sown a great deal thicker than usual, in a favourable state of the weather, and in ground in good condition, still it came through very thin, yellow in the colour, so weak, as scarcely to be able to free its cotyledons from the ground, and not producing one-third of a crop. Thus, under ordinary circumstances, after keeping the same seed a year longer, we had little reason to think it worth sowing. I, however, caused the seed to be well damped a few days before sowing, and then added slacked lime, the influence of which was not long in being manifest. The year before when the two-years-old seed had been damped, it swelled none, but acquired a mouldy smell; on the contrary, this third year, after the quick lime had been added, it swelled off plump and full, and had all the sweet smell of fresh germinating seed. It was sown very thick, but the plants started fresh and vigorous through the covering of soil, of a dark green colour, and in such quantity as to produce a crop much thicker than usual; and the plants grew and thrived as well as in the first year of the seed. I tried the same experiment this year; but from the unprecedented long-continued dry weather, it had not a fair trial: although however, four years old, the crop is still about the same thickness as some fresh Scotch pine seed sown on the same day beside it, and the plants equally strong. I tried it on some magnolia seed, the seedlings of which have this year grown with more than their accustomed vigour. As the whole of the plants may be seen, for very little trouble, in our nursery grounds (at Kilmarnoc), and as the good effects, I think, have been made apparent, I hope it will not be considered trespassing too far on your time to give a detail of the method I would like pursued. Let it be understood that the nature of the experiment applies only to seeds in which the albumen has become hard and dry, from long keeping, kiln-drying, exposure to a hot sun in crossing the equator, &c. and not to such as have been wasted, and the albumen destroyed or damaged by moisture, heating in a green state, &c. or when it is wanted to hasten the ordinary process of vegetation in seeds that are tardy. Let the seed to be experimented on be spread on a floor, or in a box or saucer, according to quantity, and thoroughly damped (more or less according to the nature of the seed, as to its naturally dry or oily condition); let the whole be well mixed together so as every seed may receive its proportion of moisture from one-eighth to one-tenth of the bulk; and mix the seed again well, so that each may receive its proportion of lime; lay it up in a heap, and, when it begins to get dry, have it turned and

mixed, and again damped; and continue this process for a longer or shorter time, according to the known habits of the seed as to speediness in vegetation, observing not to let it lie long in a dry state, in which the lime is rather prejudicial; and I feel confident, if these instructions are attended to, the result will be beneficial. Before quitting the subject, I would like to call attention to the immense use of alkalies in the vegetable economy. We have seen their use in furthering the germination of seeds; and lately has been narrated in our newspapers the good effects of quicklime sprinkled over the newly cut tubers of the potato: but it is in preparing the food of the plant, or in rendering manure into a soluble food for the plant, that their greatest benefits are to be found. The different constituents of plants (starch, sugar, mucilage, and lignine or fibrine,) are all composed of various proportions of carbon, hydrogen, and oxygen. The water absorbed by the root yields hydrogen and oxygen; and carbon being the only substance thus wanted, it has been tried to afford it, by exhibiting to the spongioles of the root carbonic acid gas in its pure state: but its quantity has always been undiminished, until mixed up with alkalies in a saponaceous matter, in somewhat of the proportions found to exist in manures of the kinds most beneficial to plants.—*Kilmarnock Journal*.

ARTICLE III.

ON FLOWERING THE ALOE VARIEGATA,

BY A CULTIVATOR.

HAVING been very successful in the flowering of the above species, I send you my mode of treatment, which, perhaps, you may deem it worthy of a place in your Cabinet.

After the severe frosts are over in the middle of May, the plants should be turned out in the open air, where they are not too much exposed to the wind, but so as to receive all the sun possible, taking care to use the watering pot very sparingly during the summer months, in order to check the growth of the plants. Once in every week let them be turned round to the sun in order to keep the plants in an erect and proper form, and by the first week in October they may be removed into the greenhouse, having washed and cleared them from all dirt and filth, giving them

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I.

plenty of air but little or no water until they are re-potted the latter end of March. In removing the plants at this season do not disturb the roots, but carefully remove all the outside earth, place them in pots of a size larger, adding a mixture of the following compost, &c.

One-third leaf mould, one-third of good rich loam, and one-third decayed pigeons dung, adding a small quantity of sharp sandy bog earth, let the whole be incorporated together previous to potting. Cover the bottom of each pot one inch and a half thick with coarse gravel, half the size of a common nut; place the plant in and fill up with the above compost, shaking the pots gently, in order to settle the whole together; place the plants again in the greenhouse, where they will be exposed to the full benefit of the sun for a fortnight longer, not giving them any water at the root until they are removed into a stronger heat, when they should be plunged up to the rims in a gentle bark bed, or hot-bed of dung, about 80 degrees of heat, occasionally watering the plants gently over their leaves with a little warm water. No water will be required at the roots until the plants are beginning to flower, when a little may be given. As the flower begins to advance, the pots may be raised up a little out of the bed, and finally removed to the end of the greenhouse, where the plants will remain in flower for a length of time.

After the plants have flowered and the blossoms decayed, they are to be placed in any part of the greenhouse at the back, until wanted again, just giving them as much water as will keep them alive. I have visited a great many different places where I have seen plants of every description grown well, but the plant I now send you my mode of treatment of, I never have found to be brought to that perfection which I have grown it myself.

A CULTIVATOR.

ARTICLE IV.

ECONOMICAL METHOD OF MANAGING CAPE HEATHS

BY CLERICUS.

BEING an admirer and cultivator of Cape Heaths, and having tried various experiments towards their perfect cultivation in this country, I take the liberty of sending you the mode which I adopt, which if you think worthy of insertion in the Cabinet, it

may possibly be amusing to some of your readers. From having tried various modes of treatment, I find that which is most conducive to the health of the plants is to keep them during the whole year in cold frames or cold pits, the frames plunged up to the brim, and the bottom on which the sand is placed being thoroughly dry; the lights in summer should be kept off during dull and cloudy weather, both night and day; but during clear sunshine, the plants should only be uncovered from four in the afternoon till nine the next morning; taking care that always in the middle of the day, to have the sashes on, and to give plenty of air. When winter approaches, the sashes must be drawn off, in mild dry weather daily, and covered with mats or some other covering during frosty nights, and in very severe weather. When there is no sunshine, they will also require to be kept on, and some dry litter or other loose material to be put around the frame. The advantages derived from plunging them in the sand are, that the frost never reaches any farther down than the surface of the soil, and that the plants will require little or no water from November till the middle of February, and that even during summer, they will not want water near so often as if they had stood upon the stage in the greenhouse, or out of doors along with the greenhouse plants. I have found from various experiments that in a great measure the want of success in growing heaths, for the most part arises from insufficient circulation of air, or from not keeping the soil in the pots in a medium state of moisture; the roots being apt to perish if kept for a short time too moist; and if allowed to get dry, the young fibrous roots will share the same fate, more particularly if the pots are exposed to the rays of the sun.

CLERICUS.

ARTICLE V.

ON THE CULTURE OF THE CHRYSANTHEMUM INDICUM.

BY MR. FREESTONE, WATLINGTON HALL, DOWNHAM.

If you think the following remarks on the cultivation of the *Chrysanthemum* worthy of a place in your Floricultural Cabinet, they are at your service. In the middle of April take the best rooted suckers that can be obtained, and plant them two feet apart in a

good rich light soil, as they advance in growth they will require a stake to tie them to, to prevent them from being broken down by the wind. If any suckers appear, let them be removed, as the *Chrysanthemum* shows itself to the greatest advantage when grown with a single stem, and that stem filled with flowering shoots from the bottom upwards.

In the second or third week in June, nip off the tops of the plants, which will cause them to throw out lateral shoots. In a month or five weeks after the plants have been stopped, take them up with as much soil adhering to their roots as possible, put them into pots of about eight inches over, using soil composed of sandy loam and well rotted manure, or leaf mould in equal quantities. Place them in the shade, and at such distance one from another, so that they may not be drawn up weak, and let the plants be well supplied with water. In a month from the time of their first potting, they will require shifting into pots of from ten to twelve inches over.

As the plants will now be getting large, they will require a good supply of water, frequently twice a day, and in hot weather, to be syringed two or three times a week. Should any mildew appear, dust a little sulphur over them, which will soon cause it to disappear. In a month from this shifting, some of the larger growing sorts will require to be shifted into pots of from 14 to 16 inches over. At this time the plants are removed from the north to a south aspect, where, if the weather is hot and dry, they are frequently syringed two or three times a day. Towards the end of September, I remove them into a vinery, and if the weather is cold, and the flower buds not so forward as could be wished, I apply fire during the night sufficient to keep the house from 55 to 60 degrees, giving air at all favourable opportunities, and closing the house early in the afternoon, sprinkling the plants and house all over with water, which causes the plants to grow luxuriantly. I place them as far apart as circumstances will admit, taking care not to crowd them, and they never fail to reward with a good show of large flowers from November to January.

As soon as the flower-buds are forward enough to distinguish the best, the inferior buds are removed, leaving from one to three on each shoot.

As the plants come into bloom, they are removed into the conservatory. It is generally supposed that the *Chrysanthemum*

will not bear forcing; I find them bear all the heat, combined with moisture, that you like to give them, and that too without drawing them, provided the flower buds are visible before you begin to force them. In fact it is impossible to get some of the late sorts to expand their bloom in such a season as the last, without using a high temperature.

R. FREESTONE.

ARTICLE VI.

ON CHINESE GARDENS.

(Continued from page 61.)

Air is likewise employed with great success, on different occasions; so as to form artificial and complicated echoes; some repeating the motion of the feet, some the rustling of garments, and others the human voice, in many different tones; all which are calculated to embarrass, to surprise, or to terrify the passenger in his progress.

All sorts of optical deceptions are also made use of: such as paintings on prepared surfaces, contrived to vary the representations as often as the spectator changes place: exhibiting at one view groupes of men, in another combats of animals, in a third, rocks, cascades, trees and mountains; in a fourth, temples and colonades; with a variety of other pleasing subjects. They likewise contrive pavements and incrustations for the walls of their apartments, of Mosaic work, composed of many pieces of marble, thrown together without order or design, which, when seen from certain points of view, unite in forming lively and exact representations of men, animals, buildings or landscapes; and they frequently have pieces of architecture, even whole prospects in perspective, which are formed by introducing temples, bridges, vessels and other fixed objects, lessened as they are more removed from the points of view, by giving greyish tints to the distant parts of the composition; and by planting there trees of a fainter colour, and smaller growth, than those that stand on the foreground, thus rendering considerable in appearance, what in reality is but trifling.

The Chinese artists employ in these enchanted scenes the vendzhang, (a native of Siam, it bears flowers of an agreeable smell, which, when they open, are of divers colours, as red, yellow, white and black; the fruit, when it comes to maturity, has the

exact resemblance of a wild duck) the ever living poplar the pau-lu, (a tree very common in Bengal, and some parts of China, to which the large Indian bats have a particular attachment, in so much, that during day-light, they almost cover its branches hanging upon them in clusters, like fruit,) with all kinds of sensitive and other extraordinary trees, plants and flowers. They keep in them a surprising variety of monstrous birds, reptiles, and animals, which they import from distant countries, or obtain by crossing the breeds. These are tamed by art, and guarded by enormous dogs of Tibet, monstrous dwarfs, and African giants in the habits of eastern magicians.

They likewise have amongst the plantations, in which are collected all the extraordinary productions of the animal, vegetable, and mineral kingdoms; as well as paintings, sculptures, medals, antiquities, and ingenious inventions of the mechanic arts; which are a fresh source of entertainment, when the weather is bad, or when the heat is too intense to admit of being in the open air.

The communications to the different scenes and other parts of the Chinese Gardens, are by walks, roads, bridleways, navigable rivers, lakes and canals; in all which, their artists introduce as much variety as possible, not only in the forms and dimensions, but also in their decoration; avoiding, nevertheless, all the absurdities, with which our antient European style of Gardening abounds.

“I am not ignorant,” said one of their artists, “that your European planters, thinking nature scanty in her arrangements, or being perhaps disgusted with the familiarity and commonness of natural objects, introduce artificial forms into their plantations, and cut their trees in the shape of pyramids, flower pots, fishes, and birds. I have heard of colonades, and whole palaces formed by plants, cut as precisely, as if they had been of stone; and of huntsmen, horses, dogs, boars and tigers, in full speed, made of yew and holly. But this is purchasing variety at the expence of reason; such extravagancies ought never to be tolerated, excepting in enchanted scenes, and there but very seldom, for they must be as destitute of beauty, as they are of propriety, and if the planter be a traveller, and a man of observation, he can want no such helps to variety, as he will recollect a thousand beautiful effects along the common roads of the countries through which he has passed, that may be introduced with much better success.”

The roads, walks, and avenues, are either directed in a single,

straight line, twisted in a crooked one, or carried zig-zag by several straight lines, altering their course at certain points. They observe, that there are few objects more strikingly great than a spacious road planted on each side with lofty trees, and stretching in a direct line beyond the reach of the eye, and that there are few things more variously entertaining, than a winding one, which opening gradually to the sight, discovers at every step a new arrangement; and although in itself, it has not the power of raising violent emotions, yet, by bringing the passenger suddenly or unexpectedly to great and uncommon things, it occasions strong impressions of surprize and astonishment, which are more forcibly felt, as being more opposite to the tranquil pleasure enjoyed in the confined parts of the road; and, in small compositions, they find crooked directions, exceedingly useful to the planter, who, by winding his walks, may give an idea of great extent, notwithstanding the narrowness of his limits.

They say, that roads which are composed of repeated straight lines, altering their directions at certain points, have all the advantages both of crooked and straight ones, with other properties, peculiar to themselves. The variety and new arrangement of objects, say they, which present themselves at every change of direction, occupy the mind agreeably: their abrupt appearance occasions surprize; which, when the extent is vast, and the repetitions frequent, swells into astonishment and admiration: the incertitude of the mind where these repetitions will end, and its anxiety as the spectator approaches towards the periods, are likewise very strong impressions; preventing that state of languor into which the mind naturally sinks, by dwelling long on the same objects.

The straight directions, particularly the zig-zag, are on account of these effects, well adapted to avenues or high roads, which lead to towns, palaces, bridges, or triumphal arches, to castles or prisons for the reception of criminals, to mausoleums; and all other works of which the intent is to inspire horror, veneration or astonishment. To humbler objects, the waving line is a more proper approach, the smallness of their parts rendering them unfit for a distant inspection; and as they are trifling in themselves, they please most when their appearance is unexpected; and from the very point, whence all their little beauties are seen in the highest lustre.

In disposing the walks of their gardens, the Chinese Artists

are very attentive to lead them successively to all the principal buildings, fine prospects, and other interesting parts of the composition; that the passenger may be conducted insensibly, as it were by accident, and without turning back, or seeming to go out of the way, to every object deserving notice.

Both their straight and winding walks are in some places kept at a considerable distance from each other, and separated by close planted thickets, to hide all exterior objects, as well as to keep the passenger in suspense with regard to the extent, as to excite those gloomy sensations which naturally steal upon the mind, in wandering through the intricacies of a solitary forest. In other places the walks approach each other, and the thickets growing gradually less deep, and more thinly planted, the ear is struck with the voices of those who are in the adjacent walks, and the eye amused with a confused sight of their persons, between the stems and foliage of the trees; insensibly again the plantations spread and darken, the objects disappear, and the voices die in confused murmurs; when unexpectedly the walks are turned into the same open spaces, and the different companies are agreeably surprised to meet, where they may view each other and satisfy their curiosity without impediment.

The Chinese gardeners very seldom finish any of their walks *en cul de sac*, carefully avoiding all unpleasant disappointments; but if at any time the nature of the situation obliges them to it, they always terminate at some interesting object, which lessens the disappointment, and takes off the idea off a childish conceit.

Neither do they ever carry a walk round the extremities of a piece of ground, and leave the middle entirely open, as it is too often done amongst us; for though it might render the first glance striking and noble, they think the pleasure would be of short duration; and that the spectator would be but moderately entertained, by walking several miles, with the same objects continually obtruding upon his sight. If the ground they have to work upon be small, and they choose to exhibit a grand scene, either from the principal habitation, or any other capital point, they do indeed leave a great part of the space open; but still care is taken to have a good depth of thicket, which frequently breaks considerably in upon the open space, and hides many parts of it from the spectator's eye.

(To be continued.)

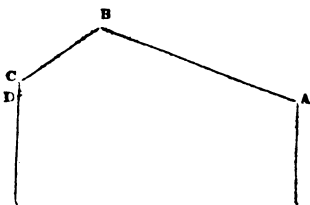
PART II.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A GREENHOUSE, &c.—I have so frequently derived advantage from the queries and remarks in the 'Floricultural Cabinet,' that I am induced to think that an answer to the following questions may be useful to many of your readers.

I am in want of a greenhouse; the situation I intend for it is on a south border, 18 feet wide, having a good wall, and a gravel walk in front, the length must vary with the expence of the building. It seems to me a great advantage for the plants, and it also adds to the beauty of the house to have



one light behind, the ridge of the roof being at B, in the annexed sketch, the stage should be of the same form as the house, if there is a stage at all. A frequent plan now is to have a raised pit in the middle of the house, but I think it cannot show nearly so many plants as a stage. There should be a walk all round, and it is a question whether there should be two or three steps to the back part, as the plants might thus be brought nearer to the glass. As to heating, have any of your correspondents tried Dr. Arnott's stove, and with what success? Dr. Arnott seems to think that it is well adapted for Horticultural buildings, it has the advantage of producing a steady heat at a very trifling expence, but my fear is, that it would create too dry an atmosphere for the plants. The hot-water system seems to have superseded the old flue, and I should like to know what it would cost, and how the pipes might be best arranged for such a house as that which I am describing?

My primary object is flowers, not conservatory plants so much as geraniums. My gardener assures me that I may have some vines trained to the rafters, and pruned on the spur method, without much injury to the flowers, I have seen them so trained at Welbeck, with two bunches of grapes at each joint, they look very tempting, but what do your correspondents say to the effect upon flowers? If there are vines, what sort should they be? and should there not be the means of taking them out of the house in winter? and what plan of construction do you recommend for this purpose? As to the roof, I have made up my mind on two points, first that it should be of wood, as every one who has metal complains of its cracking the glass so much; secondly, that the wood should all be steeped according to Kyan's patent, of which, from experience I have a very high opinion, and which I think can be no where of more use than in horticultural buildings, from the great exposure to the weather.

As to glass there seems a great difference in price, according to the size of the pane, I have glazed a large pit with panes five inches by three, it looks exceedingly neat, and is strong, besides, this size avoids duty, but I do not know whether it would look well for a house of considerable size.

I shall be glad if in this letter I have afforded any information, and shall be much obliged to you or any of your correspondents, if (taking these re-

marks along with you,) you will tell me how to lay out £100 to the best advantage, describing the construction of the building, size of the rafters, mode of heating, an estimate, &c., &c.

P. S. According to my plan there would be two sashes in the roof, one in front, and one behind which would be a fixture. Should there not be ventilators in the back wall at D?

A COUNTRY SUBSCRIBER.

ON INK SUITED FOR WRITING WITH UPON METALLIC LABELS.—I am anxious to learn through the medium of the 'Cabinet,' from which I derive much useful information, how the Metallic Labels advertised about a year ago in the 'Cabinet' are written upon, and if they require any particular kind of ink? I have used a common kind of ink, and find the writing easily obliterated with water.

Feb. 27th, 1839.

Y. M.

(A prepared ink is to be obtained very cheap with the labels, and may be applied by means of a pen, or a small camel's hair coloring brush.—COND.)

ON BLOOMING BRUNSVIGIAS, &c.—Having a few healthy bulbs of *Brunsvigia Josephinia*, and *B. falcata*, &c., and not being able to bloom them to my satisfaction, I should feel obliged if some reader of the 'Cabinet' who is successful in flowering the tribe of plants, would give me in an early Number the particulars of the mode of treatment pursued. An attention to this request will also benefit some of my friends, who have equally failed with *Brunsvigias*.

Hamburgh, November 27th, 1838.

G. G.

MALVA FULLERIANA.—Having been informed that *Malva Fulleriana* is a greenhouse plant, you would oblige me by informing me whether it is as you state, a hardy shrub, or a greenhouse plant, and the soil and best method of cultivating it.

N. B. It is in Vol iv. page 264.

February 4th, 1839.

A. X. Z.

ANSWER.

ON DESTROYING ANTS.—Not having been lately so constant a reader of your very useful publication as I could wish, I have not observed whether any satisfactory answer has been given to a query concerning the destruction of ants, by Q. in your number for June last.

If your correspondent has not yet found any remedy, I should recommend him to try what I have seen used with perfect success in the south of Europe, which is garlic chopped small, and laid across the ants usual track. They dislike this so much that it will completely drive them away, and the effect will last long after the smell has ceased to be at all perceptible. This though it will not destroy them, (which I imagine might be done by pouring boiling water into their nests,) will prevent the annoyance which Q. complains of in his conservatory.

Jan. 23rd, 1839.

L. C.

REMARKS.

TO DESTROY ANTS.—Having read complaints against ants, I am induced to send you the following:—Some time ago, a drawer, in which I kept some sugar, was so much infested with ants, that we were obliged to remove the sugar from it. It happened from some cause or other, a small piece of camphor was laid in the drawer, and on opening it a few days afterwards, we were agreeably surprised to find the bottom literally covered with dead ants. This induced us to try the experiment, and from that time we have kept the

sugar free from their depredations without any difficulty, by allowing a small piece of camphor to be in one corner of the drawer. Where trees upon walls, or plants are infested, I should recommend small pieces of camphor to be thrown on the ground round their stems and in some cases to dissolve a little in alcohol, and sprinkle it over the leaves in a diluted state, with a common syringe.

Chelsea.

JAMES HIRST.

FAIRY RINGS—Fairy Rings are considered by J. M. F. Dovaston, Esq., to originate in electricity. "When a column of electric fluid affects the earth, either ascending or descending, it scorches the ground all round its edges, where there is plenty of oxygen in contact with it; and leaves the centre unscathed, where the oxygen is either expelled or destroyed; so fertilizes the extremity. The consequence is that the first year's grass is destroyed, and the ring appears bare and brown; but the second year, the grass re-springs with highly increased vigour and verdure, together with the fungi, whose seeds are so brought into vegetation, that without this exciting cause might have slept inert for centuries."—Mag. Nat. Hist.

NEW OR RARE PLANTS.

CORREA ROSEA. This pretty flowering hybrid kind, has been raised by Mr. Milner. It has a good deal the appearance of *Correa speciosa*, having a fine green and smooth foliage, void of the rusty brown of the latter-named species. The flowers are of a beautiful delicate rose colour, and have a pretty effect.

The few plants that have been raised have been purchased at five guineas each. Being rather slow in propagation, it will be some length of time before plants can be purchased cheap. It deserves a place in every greenhouse, where, blooming as it does, profusely, would produce an interesting contrast with the *C. Milnerii*, *cordata*, *speciosa*, *pulchella*, &c. The plant blooming nearly all the year, gives it an additional recommendation.

STERENLIA ACERIFOLIA. A pretty flowering greenhouse plant, producing flowers of a dark crimson colour. It is in the collection of Messrs. Rollinson's.

IPOMEA. Unnamed species, having leaves of a *Cordata* form, and produces fine clusters of flowers which are larger than *I. rubro-cœrulea*, and of equally splendid colours. It is in the collection at the Epsom Nursery, and merits a place in every hothouse. We also saw another interesting unnamed species, which produces flowers of a light rose colour.

EPACRIS COPELANDII. Mr. Kynoch, gardener to William Copeland, Esq., Layton, Essex, has been successful in saving seed from *Epacris impressa*, and of raising the fine hybrid kind we now notice. The flowers are very similar in size to *E. impressa*, but are of a brilliant scarlet colour, producing a very fine effect. The plant is of a very free habit in growth, and blooms most profusely; it merits a place in every conservatory or greenhouse. Plants of it will soon be offered to the public. It is propagating now at the Clapton nursery.

LAGUNEA PATTERSONII. A very fine flowered greenhouse plant from New Holland, producing flowers much resembling a fine *Hibiscus*. It merits a place in every greenhouse. We saw the plant at Messrs. Rollinson's, Tooting.

PALEMONIUM PULCHELLUM. A very pretty hardy herbaceous plant, well deserving a place in the flower border. The plant blooms very freely. The flower stems rise about six inches high, producing beautiful pink blossoms, having an interesting appearance.

VERBENA PULCHERRIMA. Mr. Low of the Clapton Nursery, has received this kind during the last summer; we saw it in bloom there. The flowers are of a lilac purple, with a white centre; it is one of the erect growing kinds.

AZALEA GLEDSTANANA. This variety may be said to be twin to *A. Late-rita*, only, producing its very different, but most beautiful white flowers; it is grown at the Tooting Nursery, and to be had at one guinea per plant.

LOELIA ALBIDA. A very interesting addition to our stove orchidea, and sent from Oaxaca to Mr. Bateman of Kynpersly. The plant has the graceful appearance of *L. Autumnalis*, but the flowers are very dissimilar, both in form and colour; in the present species each flower is about two inches across, white, with a bright yellow streak down the middle of the lip, and a few crimson spots at the base; they are also fragrant. It is an additional recommendation that it is of easy culture, and a very free bloomer.

THE GARDENS
OF THE
ROYAL BOTANIC SOCIETY OF LONDON,

INNER CIRCLE, REGENT'S PARK.

(Continued from page 70.)

In our colonies the foundation of botanical gardens has been an object of government solicitude; nor has private enterprise been neglectful in promoting them in our own country. The two universities, Oxford and Cambridge, have botanical gardens; so also have Birmingham, Liverpool, Sheffield, Manchester, Leeds, Hull, Bury St. Edmunds, and Colchester; and they have been recently established at Cheltenham and Newcastle-upon-Tyne. In Scotland there are gardens at Edinburgh and Glasgow. In Ireland, at Dublin, is one belonging to Trinity College, and the splendid establishment at Glasnevin, of the Dublin Society; there are others at Cork and Belfast.

Having referred to the progress on the continent, and in our provinces, we shall in examining what has been done in the neighbourhood of the metropolis, find that there is sufficient encouragement to induce us to supply the deficiency. At Chelsea is a small garden of three acres, founded in the 17th century, and given in 1721, by Sir Hans Sloane, to the Apothecaries' Company, and devoted by them to the study of medicine, and of which they now contemplate the abandonment, if they can obtain a more suitable locality. Those at Kew have obtained considerable reputation, but are at too great a distance to be available to the great mass of the metropolitan population, while their system of management is far from being adequate to the requisites of a national institution.

That the public mind is prepared to support a botanic garden is evident by the progress of botany in every department. The number of scientific societies and floricultural exhibitions are proofs in themselves of the tendency of popular taste, while a great development is daily given to the culture of this science in the Zoological and public gardens, and cemeteries. As cultivators of the picturesque beauties of plants we stand in the highest position; and the English style in the decoration of gardens is that which is most prevalent on the continent, and most approved, while we stand in an eminent position with regard to the scientific study of botany by our authors and expeditions of discovery.

With such acknowledged advantages to be derived from the establishment of a botanic garden, and with such a tendency of public taste, it would

appear surprising that such an object should have hitherto been neglected. This deficiency is now, however, to be supplied, and in such a manner as, it is to be hoped, will satisfy every votary of science. Although previous abortive attempts had been made to effect this object, the merit of it rests with several members of the Linnæan Society, whose success confers equal honour on the society by which it was promoted and on their enlightened exertions. On the suggestion of this undertaking, it was immediately supported by many noblemen and gentlemen of every shade of politics, promoters of science, arts, and manufactures, and they concurred in the propriety of requesting the assistance of government. The Inner Circle of the Regent's Park being about to be vacated, they signed a memorial to her Majesty's Commissioners of Woods and Forests, requesting them to appropriate this site for such a laudable object. It confers the highest honour on this Administration, and on the members of her Majesty's government, and is a high proof of their desire to encourage science, that they instantly acquiesced in the propriety of devoting the ground for these purposes to a public society, instead of making it the object of individual speculation. On this concession, a farther application was made for the patronage of Her Majesty and the Duchess of Kent; and, it is needless to say, that it was given with a generosity worthy of the illustrious personages and of the great public object concerned.

The names of the supporters of this society, are a strong guarantee of its proper management, and we are happy to say that their expressed intentions are a good augury of the success of the institution. Its scientific objects are intended to be carried on in a manner commensurate with the dignity of the country, while it devotes an express attention to the encouragement of cultivation, arts, and manufactures. Public utility is the best guarantee of its success, and its promoters may feel assured, that keeping this object in view will always ensure its support. Even if a taste for such an institution did not exist, it is always the effect of well directed efforts to create it; and how far these may be successful, we see in the impulse which is given to mechanical science by the Royal Gallery of Science and the Polytechnic Institution, which are absolutely creations of the last ten years, within which period botanical studies have acquired a still greater impulse.

The society will be constituted similarly to other scientific societies, and will be under the management of a president and council, composed of fellows and members. It will doubtless, be incorporated by Royal Charter, and its importance can hardly fail to obtain for it great influence; while the manner in which it is regarded by the Linnæan Horticultural Medico, and other Botanical Societies, does honor to their enlightened liberality, and to the cause of science.

The site chosen is the inner circle of Regent's Park, lately occupied as Jenkins' nursery ground; its extent exceeds eighteen acres. That its position is eligible is best proved by referring to the neighbouring grounds of the Zoological Society, while its size is fully competent for the purpose intended. Many eminent gardens contain only three acres, while few exceed twenty, and where they do they are employed either in the cultivation of medicinal plants for the hospitals, or in the growth of fruit for the market. Its appropriation will be no encroachment on public enjoyments, while if properly directed, it cannot fail to confer great advantage on the whole empire.

¶ The artistical details of the plan, as shewn in the accompanying drawing, are formed upon an observance of the most enlightened principles, and it has been the endeavour, in this department and in others, to make science and art equally conducive to the improvement of popular taste. This portion of the subject is deserving of particular attention, as it is by what is presented to the public eye that they will be induced to judge of the merits of the remainder. However interesting a mere planted surface might prove to the man of science, something more is requisite to the mere discursive visitant,

and particularly to by far the greater proportion of its supporters, those who seek recreation rather than instruction. In fact, due attention to objects of taste is imperative in an institution that must derive its chief support from the ladies, who are certainly some of the most munificent patrons of this institution.

We are but too apt to depreciate the moral effect of the pleasures of sight, although, it must be averred, most unphilosophically; for if it be allowed generally that that organ produces the most powerful impressions on the mind by its representations, so the influence exerted by it is susceptible of modifications according to the nature of the objects presented to it. If the parks and gardens be the lungs of the metropolis, their functions are but inadequately employed if they supply only pure air, without affording a means of exercise, for the sick man will die in the healthful shades of Montpelier or Madeira as easily as in the densest miasma; but the true means of securing the health of our population is by promoting the moral as well as the physical influence of exercise. The more interesting the garden be made, the more will its moral capabilities be augmented, and the effect of a well arranged establishment cannot fail to be of importance in restoring the tone of mind to the worn out senator, languid beauty, or overworked citizen; for the mind requires its sustenance as well as the body, and there are as few maladies to be cured by abstinence from mental food, as there are for corporeal. Such an effect cannot fail to be accompanied with an appreciation of the scientific advantages, and the attractions of such an institution might be made productive of the happiest results, in creating in the infant mind a taste for scientific pursuits.

(TO BE CONTINUED.)

ON RETARDING THE BLOOMING OF PLANTS.—Among the many improvements made in the cultivation of flowers, the methods invented for retarding their flowering is one. It has been the opinion of many naturalists that the annual development of flowers yields more real satisfaction than if all were ever-flowering; that their disappearance for a season enhances the value of their return. It is long since the method of procuring a late bloom of ranunculus, anemones, and roses has been practised. This was by late planting the tubers of the two former, and double pruning the flowering shoots of the latter. Double pruning is performed in autumn and again in April. With regard to rose trees yielding flowers naturally at different seasons of the year, if the pruning is attended to, a garden may never be destitute of roses.

But there are other shrubs beside the rose-trees of which the flowering season may be protracted, both the Laurustinus and Althea frutex may be so managed as to produce their flowers at unusual seasons. The first, instead of flowering in the very early spring, may be, by removal, made to flower in autumn; the latter, by the same means may have their flowering postponed till that season.

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 favorable, 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, layers, cuttings, 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 or 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 struck in moist heat.

ANNUALS.—Hardy kinds should be sown in the borders, &c. (See Vol. I. p. 43 of the Cabinet, were 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 repotted 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. I. p. 48.

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

DAHLIAS.—Seedling plants should be potted off, one plant into a small or sixty-sized pot. Shoots and cuttings of 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. I. 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. I. p. 177 and 223; articles on the culture, &c., are there given.)

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

PANSIES—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 off shoots and planting them in a good rich soil, shading them for a few days at first.

POLYANTHUSES.—(See Vol. I. p. 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.)

MIGNIONETTE.—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. p's. 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.

ELY'S DR. HORNER PICOTTEE.—This very superior flower we gave in the number for March, and by an oversight of our Printer the remarks upon it were omitted till too late for that number, we however now state that this unrivalled and noble flower was raised by Mr. Ely, the celebrated carnation grower, of Rothwell Haigh, near Leeds. It was sent out by him last year, in a limited number, at 7s. 6d. per pair, (its present price,) and has been the wonder and admiration of all who have seen it. Its peculiar excellence consists in its extraordinary size, its bold broad well rounded petal of remarkably strong fleshy substance, which causes the flower to remain an unwanted time in bloom; the ground colour is a pure brilliant white, free from specks or stains; the edging is of the richest purple, clear, distinct, and free from all tendency to striping; the flower is high and well crowned, and filled in the centre with its fine imbricating petals. It is altogether infinitely superior to every other picottee in cultivation, and must be in all valuable collections.

This flower is named in honor of Dr. Horner, an esteemed and talented physician, at Hull, who has greatly favored the promotion of horticultural pursuits. (We understand Mr. Ely has now an abundant stock of it.)

HOVEA MANGLESII.—Captain Mangles's Hovea; all the species of Hovea are very handsome greenhouse shrubs, and the accessions which we have received to them through the hands of Captain Mangles, are highly valuable. The present species is not so striking as some other kinds, yet, it is very pretty and interesting. It thrives well with the treatment usually given to the rest of the species, that is, to pot them in sandy peat, as free from fibres as possible, taking care to put plenty of drainage, and always avoiding over shifting; water must at all times be given with careful judgment, especially during winter.

PHILIBERTIA GRANDIFLORA, large flowered Philibertia.—A very pretty plant for ornamenting the trellis or rafters of a greenhouse, growing rapidly and blooming very freely. It requires to be grown in a soil composed of fresh loam and leaf mould, with efficient drainage. We have propagated it from cuttings planted in sand, and placed in a hot-bed, we have a stock of plants for sale.

PHARBITIS DIVERSIFOLIA, three lobed large Convolvulus.—A very ornamental and showy half hardy annual, and was introduced from Mexico by G. Dickson, Esq. It is a very beautiful flowering plant most suitable for training up stakes, fancy wire frames, fencing, verandas, &c., it grows freely and blooms profusely. The flower has somewhat the appearance of the Convolvulus major, but is rather less; the plaits on the corolla are very strikingly distinct. It deserves a place in every flower garden, or for ornamenting a greenhouse or conservatory during summer.

May 1839



Eclipse.



King of the Heartsease.



Lord Durham



Beauty of Edmonton.



General Wolfe

THE
FLORICULTURAL CABINET,

MAY, 1st, 1839.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

**OBSERVATIONS MADE ON THE EFFECTS OF SITUATION AND EX-
POSURE ON DIFFERENT KINDS OF PLANTS, DURING THE SE-
VERE WINTERS OF 1837-8.**

BY CLERICUS.

As by far the greater number of plants cultivated in this country are exotics, we find they are variously affected by the changeable weather of our climate, as well as by the attending circumstances of the situations they are destined to occupy. Our knowledge, acquired by experience, of the constitution of foreign plants, has supplied us with rules for our guidance in the distribution of them. If we happen to be acquainted with the native habitat of a plant, we can judge pretty accurately what place it is most likely to thrive in with us. Tropical plants, for instance, we place in the stove, or conservatory; Australian, South African, Chinese, and South European, in the greenhouse; and those from the northern parts of Asia, Europe, and America, any where in the open air where we may have occasion for them, or which we may think best adapted for them. This is a very natural way of proceeding; but we are not always right in its application; some tropical plants are killed by placing and keeping them in the stove; because it is not so much the latitude whence they have been brought, as it is the elevation of their habitat above the

level of the sea which determines their hardiness. Many plants are debilitated by confinement in the greenhouse, and very many extra-tropical plants are lost from being placed in what is considered the warmest or most sheltered situation.

These errors are occasioned either by a want of experience respecting the constitution of the plant, or from inattention to the extreme change of temperature to which it is exposed in its new place, or from ignorance that situation and exposure change the constitution of plants to such a degree that, while one is perfectly hardy if nursed on a northern aspect, another of the same kind shall be so tender and vulnerable on a southern exposure, that it dies, or is cut down to the ground, under the slightest frost.

Want of experience concerning the constitution of a newly imported plant may be said to be an excusable want of judgement; because we have no means of knowing without experience, there being no general rule to guide. If, indeed, we are told that it is an annual from a warm country, we may safely conclude that it will succeed in this climate during summer, as many tropical annuals do. Or, if it be a perennial herb from the same country, we may find it answer with us if it be only protected from frost. But if tropical shrubs or trees are brought to us, we cannot, from any external mark, judge whether they are liable to be killed by frost or not. If they shed their leaves in winter, it is only a sign that they are winter-resting plants, not that they are hardy; because there are several tropical plants which are deciduous, as for instance, the silk cotton tree (*Bombax ceiba*); and many evergreens are as hardy as those that shed their leaves.

We often fail in preserving tender plants from inattention to local circumstances. We are liable to mistake shelter for warmth. Frost and the north and east winds are most dreaded in this country. A southern exposure, whether for the abode of animals, or a station for vegetables, is always considered the most eligible, merely, perhaps, because it is the most agreeable to our own perceptions. But in respect of vegetables we often err in this matter, both in choosing sheltered situations and southern exposures.

Cold (or rather cold air) is always most intense in humid situations, because there is the most copious evaporation. Such situations, in this country, are either on the tops of clayey hills, or in the lowest valleys, where there is either a lake, river, or brook.

These low grounds are nearer the main springs, and often abound with them, whence exhalations are ever rising, though imperceptible; of course such a valley must always be more chilly, and more subject to keen frost than any drier or more elevated situations. Such glens, provided they are open to the south, are chosen as the most suitable for tender exotics, merely because they are more sheltered from the northern blast. In the summer indeed, such a locality is most favourable to the quick and strong growth of every plant. The air, being generally calm and moist, conduces to vigorous expansion; and the very coolness of a summer's day or night, as felt in such places, is most propitious to luxuriant vegetation. These circumstances, however, instead of being beneficial to tender exotics, have a directly contrary effect; the summer excitement only renders them less able to bear the frosts, which fall upon them with redoubled intensity in winter. And instead of the slow and sturdy growth which would have happened to a plant on a dry and breezy hill, or on a northern aspect, we have an enfeebled nursling, unfit to bear the rigours of our climate from sheer mismanagement.

Many proofs of the truth of these statements may be adduced, but we presume they are unnecessary, as the facts must have been repeatedly observed by our readers in general. The fact, however, is most important, not altogether for the sake of naturalising exotic plants, but for fixing the sites for gardens and orchards, which, if misplaced at first, give cause ever after for regret.

Not only do the exhalations from a moist valley generate cold, but the cold air which descends upon the hills after sunset is said to "slide down" and settle in the lowest place. So firmly is this believed, and acted on by a well-known horticultural philosopher, John Williams, Esq., of Pitmaston, near Worcester, that in all cases where a garden is made on ground sloping to the south, that gentleman invariably advises the lowest boundary to be a hedge; or if a wall, it be raised on grated arches high enough to allow the escape of the cold fleece of air accumulated within the garden. On the same principle, whatever may be the aspect, the upper boundary wall should be high and close, to intercept the descending current and divert it round the ends.

From these circumstances, then, it is fair to conclude that low situations should never be chosen for garden sites, or as the best places for tender exotics.

There is another circumstance not yet adverted to which operates injuriously on tender plants in sunny and sheltered valleys. There, they are sooner affected by the returning warmth and solar beams of spring, and hurried into a premature growth long before frosts are over, or the summer temperature confirmed. They are awake and putting forth their tender leaves and shoots before the exposed residents of the hill are in the least acted on. The first have their sap liquefied and in motion; that of the second is clammy and at rest; the first suffer because they have to sustain four degrees of frost perhaps, when least prepared for it, while the second have only to bear two degrees, and are otherwise fortified against it.

The native plants of the frosty regions of Siberia suffer greatly from late frosts when introduced into British gardens, not from the severity of our seasons compared with that of their own, but entirely from the changeableness of the former. In Siberia the winter sets in at once, and the surface of the ground is soon covered with snow; every vegetable becomes instantly torpid, and in this state remains in perfect safety till the return of spring, or rather summer, as there is scarcely any spring season in that northern clime,—no intermission of mildness to excite, and frosts to destroy the tender plants, as is so often experienced in this country.

The changeableness of our spring weather is, in fact, the greatest bar to our possessing very many plants, which, to have at all must be guarded in some kind of building erected for the purpose. Our want of success in attempting to naturalise some exotics shrubs and trees, however, may have happened not so much from the constitutional delicacy of the plants themselves, as to the injudicious manner, perhaps in which the trial has been made. Exposed situations on the north side of a hill, and on poor and dry, rather than on rich and moist soil, is certainly the most eligible station for making a trial of the constitution of a foreign plant. Here it would not be excited into too early growth by the early sun of the day or of the season, nor would the aspect induce precocious growth. Its growth would be slower but its shoots would be firmer in texture and consequently better able to resist the destructive effects of frozen sap.

I cannot conclude these observations without first alluding to the ideas entertained about the acclimatation of exotic plants. The notion is founded on the supposition that, as animals have a

tendency to accomodate themselves to foreign climates, or to the changes of temperature of their own native place; so plants may in like manner be susceptible of physical changes which would enable them to bear great diversity of climatal temperature; but from all experience on this point it appears, from many tropical annuals long cultivated in Britain, that they have not perceptibly advanced in hardihood since the first day of their introduction. Such are the runner kidney-bean (which, by the bye, is a perennial); the potato and cucumber among culinary vegetables; the China aster and balsam among flowers, and the melon among fruits. All these have been perpetuated by seeds that have been produced, ever since their first introduction into this country, but without gaining any additional protective habit against frost. We may, therefore, conclude that plants generally have been formed for the climates to which they are indigenous, and have not that mutability of structure or of sap which would render them invulnerable to frost in a colder country, or to the incessant excitement of a warmer one without deterioration.

That many plants are now seen in the open air which were formerly in the greenhouse, or even in the stove is well known; but this has not happened in consequence of any change in the constitution of those plants, but merely from being misplaced on their first introduction for want of experience:—*Aucuba Japonica*, one of our hardiest shrubs, was once under my care in the warmest end of a conservatory!

The effect of frost on tender vegetable bodies is mitigated by thawing it off with water before the sun shines upon them. This seems to contradict what has been before stated, as to dryness being a safeguard to plants. But the cases are different; perfect dryness is a security against frost, but when plants are loaded with frozen dew, and this allowed to be dissolved by the sun, a much more intense degree of cold is generated during the solution of the icy particles by the sun, than if they were suddenly dissolved by water. It is this increased degree of cold which ruptures the delicate vessels of the plants, and of course destroys them.

Sometimes we see the stem of a tender shrub, as a heath, for instance, rent into many pieces, whilst the youngest shoots remain unhurt. This is owing to the rigidity of the first, and the elastic texture of the second; the latter yields to the distending effects of the concealed sap, and afterwards returns to a healthy

state ; but the unyielding character of the old wood only renders it more destructable, The foliage of the grasses indigenous to cold countries is only withered by frost, but seldom destroyed, owing to the tenacity and elasticity of its structure.

CLERICUS.

ARTICLE II.

ON THE CULTURE OF THE STOVE SPECIES OF CACTUS.

BY MR. RICHARD BEALY, BLACKBURN.

ALL the stove species of Cactæ may be treated as follows with great success.

Pot them in loam peat, or sandy loam, mixed with a small portion of lime rubbish, say about a fourth part.

Always let the pots in which they are planted be as small as the plants will allow ; large pots are injurious, because the roots are prevented from reaching the sides for a long time, and the body of the soil is liable to retain too much moisture every time the plant is watered.

Always give a good drainage, by laying in each pot a good portion of broken potsherds, as the least stagnation is always injurious, sometimes fatal ; therefore, never allow water to stand in the pans or feeders, in which the pots are sometimes placed.

Water very seldom, not more than twice a week, when they are flowering, and not so often at other times ; give very little at a time, not more than will just moisten the soil all over, particularly if the weather is not fine and sunny.

About the middle of June, turn them out of doors into a situation where they will not be exposed to wind, but perfectly open to the rays of the mid-day sun. Place them on a board or floor of any kind, to prevent the worms from effecting an entrance through the bottom of the pots. This system of exposing them in summer, gives them a check which seldom fails to produce a good bloom.

Whilst out of doors they must not be allowed to receive the heavy dashing rains, or they will suffer, perhaps die in consequence ; either a boarded roof, or other shelter must be provided for them on such occasions. Also, if the pots stand on a floor of slates or flag stones, they should be plunged in a little moss,

as the sun, by heating the pots, sometimes burn the roots of the plants.

In September, take the plants into the greenhouse, and place them in a situation where they will receive plenty of light and air in winter.

Early in the spring, remove them into the stove in succession as they are wanted to flower.

Most of the species will flower very fine without being placed out of doors at all ; but by placing them out as above, the flowers will be much finer and more abundant than when grown regularly in the house ; they may be increased by cuttings, seeds, and grafting.

Take off the cuttings at the length required, and lay them on a shelf in the greenhouse, &c. to dry up the wound made by the knife. Let them remain on the shelf till they begin to have a shrivelled appearance, say a week or a fortnight, then pot them in small pots in the same compost as recommended for old plants, set them on a shelf as near the glass as convenient, and be particularly cautious not to over-water them.

Sow the seed in a wet state, immediately after being gathered from the plant, and rubbed out of the husk. For this purpose, fill a pot with a mixture of equal parts of peat, earth and sand, cover it lightly, and plunge the pots into a hotbed, if the seed be good, it will make its appearance a month afterwards.

The operation of grafting is very simple, merely requiring an incision to be made, and fitting in it a fresh cutting of another kind, rubbing a little clay over the wound to keep out the air.

ARTICLE III.

ON THE CULTURE OF EPACRIS'S,

BY A FOREMAN OF A LONDON NURSERY.

ALL the species of *Epacris* are natives in the neighbourhood of New South Wales, and are very handsome shrubby greenhouse plants. Their culture is very simple and easy ; the *E. microphylla*, and *exserta*, require to be potted in equal parts of light sandy loam and peat, but all the rest thrive best in sandy peat alone. They nearly all come in flower about the end of March or the beginning of April, and continue blooming until June or

July, although the present subject flowers most of the winter, as well as spring and summer. In June they must be turned out of doors with the other greenhouse plants, but previous to which, it will be necessary to pot them, in most cases shifting them into larger pots; this is indispensable, as their roots are so fine a texture, that if the pots be placed out of doors, and consequently exposed to the alternations of heat and cold more than when in the house, the roots against the sides of the pots will receive material injury, the plants will become brown, and in most cases die; this we have seen in very many instances.

The best way of propagating them is by cuttings, which should be put in early in the spring; they will strike if put in at other times of the year, but not so freely. Take off the extreme ends about one inch or an inch and an half long, and plant them in pots of sand, cover them with bell glasses, and give them similar treatment to *Erica* cuttings. When they have struck root, pot them into small pots in a frame where there is a little heat; and when they have again begun to grow, remove them into a warm part of the greenhouse, and then treat them in the same way as the old plants. The whole of the order *Epacridææ*, consisting of eighteen genera, all being natives of the same country, require the same general mode of culture, which may be stated as follows:—

With the exception of *Epacris microphylla* and *exserta*, *Styphelia longifolia*, the whole genera of *Lysinema*, *Poncletia*, and *Leucopogon*, let every species be potted in sandy peat soil.

The above exceptions must always have an addition of sandy loam mixed with the peat in which they are potted, but in every other respect it must be treated like other species.

Good drainage in every case must be attended to, for any deficiency here will seriously injure if not totally destroy the plants.

Never sift the soil in which the plants are potted, but chop and break it well, although in some cases this is scarcely necessary, when the turfy parts are well rotted.

Never allow the soil to become hard and dry particularly amongst those species potted in sandy peat alone; because, from the delicacy of the fibres of the roots, this cannot be the case without the plants being materially damaged, if not destroyed.

Always pot the plants immediately before they are turned out of doors in summer; for if this be not done, the action of the sun

and air upon the sides of the pot, if the roots are matted, will dry the roots, and the plants will become sickly and die.

In potting, never cut off the matted roots with a knife, but merely pull them with the fingers without damaging the ball more than is necessary.

Always let the plants stand in an airy part of the greenhouse, and never crowd them among other plants, or they will not prosper.

In propagating, select half-ripened wood for cutting, plant them in sand, cover them with a bell-glass, and place them in a shady part of the greenhouse, or in a frame. In both situations they must be shaded from the sun, until they have struck root.

ARTICLE IV.

ON THE GREEN MOSS ON ROSE TREES, AND OTHER SHRUBBY PLANTS.

BY A PRACTICAL GARDENER.

MANY readers of the Cabinet must have observed in their walks through a shrubbery, the unsightly appearance of the stems and trunks of rose bushes and larger shrubs, being entirely destitute of bark. Is it a natural disease incident to old trees? I am inclined to think that this is not the case, for I have seen comparatively young trees, covered as much as the old ones. It will be observed that trees on rocks, on walls, on soil, and in fact, on every thing that is exposed to the action of the atmosphere in a fixed state, a green covering, which, when minutely examined, appear like a green powder, and if allowed to remain, would form into patches of moss. This seems to be the most minute of the vegetable creation, and I believe the very foundation of it, and but for the industry of man, this would be the clothing that Nature would assume in this moist climate. The particles of this green powder must be exceedingly minute, as it remains invisible until great masses are collected together. Now it is obvious where this adheres to a tree, it must close up its pores, and thereby prevent the vessels from being acted upon by the external air. I likewise think it receives nourishment by exhausting the sap in the bark, which will first begin to crack, and afterwards die and fall off. I am the more induced to form this opinion, by

having seen an experiment tried to destroy it : this was done by using the common solution of soft soap and sulphur-vivum mixed with boiling lime-water, till it became of the consistence of paint. This, when cold, was applied with a paint brush to part off the branches of a young tree that were covered with this green mould yet the bark was free from cracks. The bark of the part thus dressed became in a short time clear, and entirely free, whilst the remainder of the tree was still clothed with its green garb. I would recommend all gardeners, who have trees or shrubs in this condition, to give them a dressing once or twice in the winter season, and I doubt not that it will answer their highest expectations. A sprinkling of quick lime in a powdered state over the affected parts, after a shower of rain or strong dew, I have found to be equally useful wherever it touched.

ARTICLE V.

ON THE CULTURE OF IXIA AND GLADIOLI.

BY MR. RUTGER.

FEELING dissatisfied with what I had seen of the flowering of these bulbs, in the nurseries round London, as well as with those under my own care, I resolved to try the effect of a different soil from that generally recommended, and not cramming so many of them together in a pot as is usually done. The soil used was one-half rich loam, with one-fourth rotten dung, and one-fourth leaf-mould, both well decomposed and mixed up together with the loam. The pots were well drained, and a layer of the siftings of the dung and leaf-mould was put over the drainings. Of the smaller sorts of bulbs, I put only two or three in a forty-eight sized pot; of the larger only one in a pot of the same size; and of the largest only one in a thirty-two sized pot. During their growth; and particularly when near flowering, the bulbs were liberally supplied with water. Under this mode of treatment, my desires were fully realized, and my bulbs produced fine flowers, far superior to any others that I have ever seen grown in pots.

J. RUTGER.

ARTICLE VI.

ON CHINESE GARDENS.

(Continued from page 88.)

THESE projections produce variety, by altering the apparent figure of the open space from every point of view; and by constantly hiding parts of it, they create a mystery, which excites the traveller's curiosity; they likewise occasion, in many places, a great depth in the thicket, which affords opportunities of making recesses for buildings, seats, and other objects, as well as for bold windings of the principal walks, and for several smaller paths to branch off from the principal ones; all which take off the idea of a boundary, and furnish amusement to the passenger in his course; and as it is not easy to pursue all the turns of the different lateral paths, there is still something left to desire, and a field for the imagination to work upon.

In their crooked walks, they carefully avoid all sudden or unnatural windings, particularly the regular serpentine curves, of which our English gardeners are so fond; observing, that these eternal, uniform, undulating lines, are, of all things, the most unnatural, the most affected, and most tiresome to pursue. Having nature in view, they seldom turn their walks, without some apparent excuse; either to avoid impediments, naturally existing, or raised by art, to improve the scenery. A mountain, a precipice, a deep valley, a marsh, a piece of rugged ground, a building, or some old venerable plant, afford a striking reason for turning aside, and if a river, the sea, a wide extended lake, or a terrace commanding rich prospects, present themselves, they hold it judicious to follow them in all their windings; so to protract the enjoyments which these noble objects procure: but on a plain, either open, or formed into groves and thickets, where no impediments oblige, nor no curiosity invites to follow a winding path, they think it very absurd; saying that the road must either have been made by art, or be worn by the constant passage of travellers: in either of which cases, it cannot be supposed that men would go by a crooked line, where they could arrive by a straight one. In general, they are very sparing of their twists, which are always easy, and so managed, that never more than one curve is perceptible at the same time.

They likewise take care to avoid an exact parallelism in these

walks, both with regard to the trees which border them, and the ground of which they are composed. The usual width given to the walk, is from eight to twenty, or even thirty feet, according to the extent of the plantation ; but the trees, on each side, are, in many places, more distant ; large spaces being left open, which are covered with grass and wild flowers, or with fern, broom, briars, and underwood.

The ground of the walk is either of turf or gravel ; neither of them finishing exactly at its edges, but running some way into the thickets, groves or shrubberies, on each side, in order to imitate nature more closely ; and to take off that disagreeable formality and stiffness, which a contrary practice occasions in our European plantations.

In their straight roads or walks, when the extent is vast, the Chinese artists observe an exact order and symmetry ; saying that in stupendous works, the appearance of art is by no means disgusting, that it conveys to posterity instances of the grandeur of their ancestors ; and gives birth to many sublime and pleasing reflections. The imperial roads are astonishing works of this nature, they are composed of triple avenues, adorned with four rows of enormous trees ; generally Indian chesnuts, spruce firs, mountain cedars, and others of the largest growth, planted at proper distances ; and extending in straight lines, and almost on a level, two three, even four hundred miles. The centre avenues are from one hundred and fifty, to two hundred feet wide ; and the lateral ones, are generally from forty to fifty feet ; the spreading branches of the trees forming over them a natural umbrella, under which the travellers pass, at all times of the day, unmolested by the sun.

In some places these roads are carried by lofty vaulted passages, through the rocks and mountains ; in others, upon causeways and bridges, over lakes, torrents, and arms of the sea ; and in others, they are supported, between the precipices, upon chains of iron, or upon pillars, and many tire of arcades, over villages, pagodas, and cities : in short, no difficulty has been attended to in their construction ; but every obstacle has been conquered with amazing industry, and at an almost incredible expence.

(To be continued.)

REVIEW.

The Boquet, or Ladies' Flower Garden, being a Description of those plants which will flower in the Room, and the Treatment most suitable for them.—By a Florist, Simpkin & Co. 12mo. pp. 102.

In the preface the author states his object in the following remarks :

“ It has been often a matter of great surprise to me that amongst all the various books that have been written upon Botany, and the cultivation of plants, none should ever have been written upon the treatment plants require when placed in a London sitting-room. I have, therefore, taken upon myself a task of this kind, in hopes that, when it has been perused, it will be the means of preserving many plants, and also of keeping that healthy and beautiful appearance upon them, which can only be done by proper treatment.

“ It was my intention at first to have placed all those plants that require the same treatment together, and so to have made one description answer for each head or section; but this I found would be impracticable, as almost every two or three plants would require to be placed under a different head, and would consequently cause great confusion in the arrangement of them.

“ I have, therefore, made a selection of the most approved flowers, for the various months of the year, and so given a description of each plant individually.”

It appears that the author has in the title given, limited a Lady's Flower Garden, to a dwelling room, this is certainly too contracted. The fine collection of plants in the conservatory and greenhouse, as also their well kept flower gardens, and beds in the open air, give sufficient evidence.

The remarks on the plants included in the work, will be found somewhat useful, but will admit of considerable additions to render it what is desirable. In another edition we hope this will be attended to. The following is a specimen of the work :

“ FEBRUARY. *Rose*. This may justly be classed as the most beautiful flower that nature has given us, having that which is rarely met with in other plants, beauty and a fine perfume combined together. There are several varieties of this lovely flower, which can be procured at this early season, and which are forced in hothouses with very great heat, so that when taken into the room, they require very great attention. In purchasing forced roses, one of the principal objects to have in view is the healthiness of the plant, which may be easily told by the leaf being

very smooth and expanded, and of a fine green. The beauty of the rose, depends a great deal upon the form of its flower when open, which in forced roses is often very bad; therefore it should be particularly noticed if the bud is of an oval form, and not to care for a great profusion of flowers, as they are sure not all of them to open their bloom, whereas, when they are but few, they generally all expand, making large and handsome flowers; but when the bud is short and flat, and being indented on the side, it will be perceived that one half of the bud opens before the other, and consequently spoils the beauty of the flower. The above brief description will be found equally applicable to all roses, whether forced or not.

“Having given a few remarks upon the choosing of the rose, I think I may now safely venture to describe the treatment that is most suited to it after it is removed from the hothouse and brought into the room; therefore the first point is, to find the situation which it is likely to thrive best in, which ought to be where there is plenty of light, and at the same time not much affected by the fire; consequently, that part of the room which is farthest from the fire, and nearest the light or window, is best suited to it: if there is a saucer placed beneath the plant, as is frequently the case for convenience, water should at no time be allowed to remain in it, as nothing is more detrimental to this plant than stale water; although there are several varieties of plants which are very much benefitted by standing in water; hence it is that the want of sufficient knowledge of those which ought and ought not to be treated in this manner, has occasioned so many failures among plants when taken into the room; but as I treat of the various plants, I shall describe those that are benefitted by this mode of treatment.

“The rose should be slightly watered once a day at this season of the year, and that upon the surface of the mould, not putting any in the saucer, and so long as it remains wet, then the plant will require no water; but when it becomes dry, then a fresh supply may with safety be given. The forced rose is one of those plants very much subjected to a small green fly, which fixes itself beneath the leaf and upon the bud, and it is a great object even with nurserymen to destroy them, which is partially done by means of tobacco smoke; but I think where there are only a few plants, the best and most certain way of keeping them from the plants, is to wash the leaves and bud with a feather or soft hair brush, dipped in a solution of soft soap and tobacco water, as the soft soap being of an adhesive nature, it remains upon the plants for some time, keeping with it the properties of the tobacco; this being carefully applied once, it is rarely the insects return again during the time it is flowering: this method will be equally applicable to all plants which are subject to this species of insect.

“The following are the names of a few roses, which may be had at this early time of the year: Provin's Rose, Moss ditto,

Spong's ditto, Rose de Meaux, and Fairy Rose. The Rose de Meaux and Spong's Rose, are the two best for flowering in the room; but the two former species are much the finest, the flowers being nearly three times the size of the latter. The Fairy Rose, as it is called by the gardeners, is quite a different rose from that which has generally borne that name. It being a very double flower, and much larger than the variety of Fairy Rose, the treatment of this beautiful little plant is not near so troublesome as other roses, nor is it so liable to insects. It should receive a very little water each day, and when the roses fall off, the flower-stalk should be cut off, which gives much more strength to the succeeding bloom. About this time the common Blush China or monthly Rose, commences to flower, and, with proper care, continues blooming for many months; it is also liable to insects, but may be easily cured of them by the means already described. Its other treatment is much the same as the Fairy Rose, cutting off the dead flower and giving it more water as the season advances; when about the month of April, it may be placed outside of the window during the day, and very often the night also.

"*Rhodora Cadanensis*,—This is one of those plants which flower before it makes any appearance of leaf, for which it generally makes up in abundance and showiness of its bloom, being of a rosy lilac colour, and flowering in small bunches on the extremity of the branches. It is very beautiful in bouquets, for which purpose it is very much cultivated by gardeners. It will either stand in a cold room, or one where there is a fire, and should be very slightly watered each day.

"The *Pink* is nearly one of the worst plants for forcing early, as it is so often that nearly the whole of the buds turn blind, and never open, especially when taken into the room; consequently it requires an accurate knowledge of the habit of this plant to be able to choose those which are likely to bloom. The method which I have always found the most certain, and which I recommend to my readers, is by slightly pressing the bud between the fingers. When they feel full and hard, they may safely be depended upon, for when the petals of the bloom are fully formed, they are sure to open well. But should the buds close between the fingers and appear to be empty, then there is no chance whatever of its flowering, not even in the hothouse of the nurseryman himself; and again, they ought not to be chosen very backward, even if they should feel full and hard, for when very backward, they require twice the care and attention, and at the same time do not flower any the finer for it, consequently I should recommend choosing those which have the most buds about to open, as they last as long as the most backward. In its treatment care should be given to the watering of it, as a surplus of water will destroy the forthcoming bloom sooner than anything else, so that if there is a saucer beneath the plant, water should not be allowed to remain in it longer than two or three hours after it has

been watered, which ought to have been done every day, if the plant is in good health, and placed near the light, where it will not be exposed to a cold draught of air, which is very injurious to it. There are few flowers that deserve to be more cultivated, either at this or any other time of the year, on account of its very fine scent, that is surpassed by hardly any other flower. Those most held in esteem for forcing early—Shailer's Early White, Moss's Blush, and the Anne Boleyn Pink. The latter is quite different from the other pinks, both in its growth and flower, generally attaining the height of two and three feet, and having a very large flower, which is very sweet: it is much later in its flowering than the two former, and thrives better than any other when taken into the room.

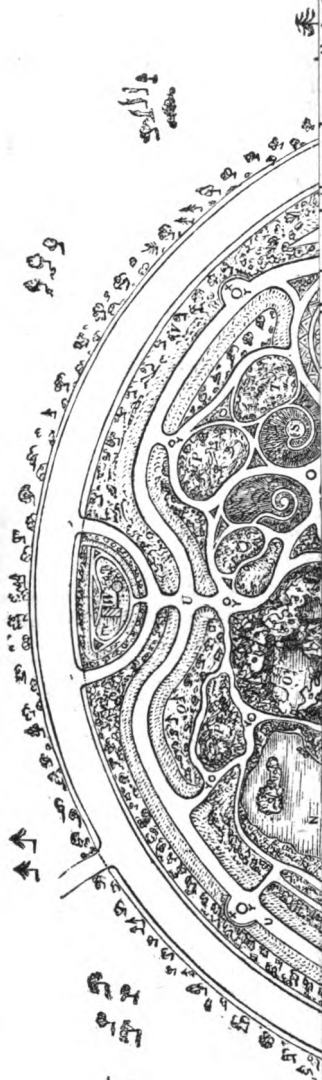
“*Azalea indica alba*.—The beautiful species of this tribe seem formed to relieve the dullness of the winter months both, by their various colours and by the beautiful scent of the flowers. The species I am now describing generally blooms with two or three flowers together, of a clear white, with long stamens which project out of the flower; it is particularly desirable for the town, as it is one of those plants which retains its bloom for a long time, and likewise flourishes very well in the room; the flower of this species of *Azalea* is extremely liable to be bruised from its delicateness, and should therefore be kept from any draught of air; it should be watered once a day, and never be permitted to get quite dry, for when the flowers once droop from this cause, it is rarely that they rise again. *Azalea indica phanicea*.—This differs from the other variety, as having a much greener and better leaf, and the flower of a very dark lilac or purple; generally it does not flower very freely until it gets to a large size; its treatment is the same as the other. *Azalea indica Smithii*.—This species is very showy, and flowers very abundantly, as well upon small plants as large, having a bright red flower; it flowers much later in the season than the former varieties, as it is not generally much forced.

“*Camellia*.—This beautiful tribe of plants has been more trouble to make bloom, in town, than perhaps almost any other; I shall, therefore, be more particular in describing the treatment, and point out many objections, that have hitherto been to the culture of this desirable plant. From its repeated failures, it is often thought that it is a plant that will not flower in town: but this is quite erroneous, as with proper attention, it may be flowered as well as most other plants; and being of a fine leaf, independent of flower, it is particularly worthy of a little more trouble than ordinary plants. Now the great cause of complaint against it, is, that when it is covered with bud, and every expectation raised of seeing some beautiful flowers spring from them, they gradually commence falling off as the season of its blooming approaches, so that there is scarcely a single bud left upon the plant at that time when they ought to be expanding themselves into flower.

(To be Continued)

THE GARDENS OF THE ROYAL BOTANIC SOCIETY,

INNER CIRCLE, REGENT'S PARK.



G.—Medico Botanic Garden, with extensive range of Conservatories, Stoves and Houses.
 H.—Dutch Garden.

I.—Ground for Ferns, &c.
 Q.—Arboretum and Shrubberies.
 R.—Lawn.
 S.—Mound, with Observatory.

a.—Road round the gardens, called the Inner Drive, or Circle.
 b.—Road to Colosseum, &c.
 c.—Road over the bridge to Marylebone Church, &c.

THE GARDENS
OF THE
ROYAL BOTANIC SOCIETY OF LONDON,
INNER CIRCLE, REGENT'S PARK.

(Continued from page 94.)

The arrangement of this portion of the objects of the society has been confided to an architect possessing considerable taste and judgment in laying out ornamental grounds; and it is needless to say that he has complied with the utmost expectations of the enlightened promoters of the society. The geographical and physical distribution of plants is to be preserved as much as possible, and a necessary accessory is the application of national architecture in the buildings devoted to the production of individual countries. Other artistical decorations, as statues and vases, will also be employed as far as possible; and it is saying much in praise of the objects of the society, that only in this department, without going into any unnecessary expence, they may powerfully contribute to the cultivation of public taste. While the several ornamental edifices will present a synopsis of the various styles of architecture, a proper selection of statues and vases, would afford all the benefit of a gallery or museum. This would give the public an opportunity of becoming acquainted with the best production of the several schools, and the elucidation of this object should be by no means omitted in the catalogue of the gardens. The selections might include casts of the several styles of Egyptian art, and of the finest ancient and modern specimens of the several Greek, Italian, French, and English schools. Whether these are classed in the general catalogue, or formed into a separate volume, the descriptions should contain sufficient information of the works and their artists, and the base of every figure should have inscribed the name of the artist, and date and style of the work.

The plants are to be arranged according to the two great systems of classification, the artificial and the natural; and will likewise be disposed in such a manner as may be useful to every class of botanist. The artificial system, is that of Linnæus, founded on the visible organs of plants, while it presents great facilities of reference, is too loose for any strict classification, and resembles the old method of animal arrangement, which in its definition of quadrupeds included in the same class of animals, reptiles, and excluded cetaceæ. The natural system formed, by Jessieu, is founded upon the constitutional differences of plants, and establishes as clear a distinction between the several classes, as in animal tribes the distinction between warm and cold blooded. The adoption of this latter system is of almost universal preference in all continental gardens founded upon improved principles, and is well calculated, by its introduction here, to impress the student with the importance of studying the organic constitution of plants.

The circle is proposed to be distributed into compartments, for the reception of the several plants indigenous to Europe, Asia, Africa, America, Australia, and the Polar Regions. These again are proposed to be subdivided into gardens, in illustration of the style of ornamental gardens of the several countries of the great divisions.

At the entrance of the grounds from the grand drive leading from the Colosseum a building will be erected, devoted to the general business of the Society, and containing a library, museum, and rooms for study. The library will consist of botanical works and periodicals, and to it will be annexed a reading room for the use of fellows and members. The museum will contain dried specimens, drawings, and engravings of recent plants, and specimens of fossils, and it would augment the value of these latter if they were accompanied by such recent plants as are identical to them, or have the nearest relation. It will farther contain illustrations of the application of vegetable

productions to manufactures, as, for instance, specimens of cotton from the raw material up to its formation into cloth. The rooms for instruction will afford facilities for students to draw plants from the living objects, and it will include a convenient lecture hall, in which courses will be given similar to those which are so popular at the Jardin des Plantes at Paris, and the Royal Dublin Society's gardens at Glasnevin. From this edifice a raised viaduct promenade, over-looking a considerable portion of the gardens, will lead to a domed conservatory in the centre of the gardens. This conservatory will be on a very large scale, so as to emulate some of the foreign houses, and to give every facility for the growth of the more magnificent tropical plants. Descending from the conservatory to the right of the grand promenade, we come to a garden laid out in the Dutch style, with a fountain in centre, and canals. Beyond this will be a rosary, consisting of a circular lawn, surrounded by arch trellis work and borders, for the growth of every variety of this queen of flowers. From this we enter the Italian garden, laid out with statues, fountains, and raised terraces, at one end of which will be a conservatory and at the other a casino. Having passed under the promenade, we reach the medico-botanical garden, adjoining the central conservatory, and surrounded by hot-houses, stoves, &c. We are now at the head of the lake, which will extend for about a quarter of a mile, interspersed with islands and winding amid varied scenery. Here will be cultivated aquatic plants, and there will also be provided a salt-water basin for marine algæ. At the head of the lake will be an artificial rock for the cultivation of rock-plants, and which will contain a large reservoir to supply the several fountains and hydraulic works. The borders of the lake, will, if possible, be so arranged as to display representations of natural geological sections, which may be made equally productive of interest and delight.

Between the lake and central conservatory will be an extensive lawn, upon which ornamental shrubs and parterres of flowers will be displayed in the modern English style. In its special department will be a garden devoted, like that at Glasgow, to the cultivation of plants used in manufactures; and the dyer may here see the material of his tints, or the weaver the cotton from which his cloth is spun. In proper situations will be the American or bog-earth grounds; a ground shaded by trees and containing stumps and roots of trees, tunnels and caves for the growth of mosses, ferns, fungi, and other cellulares. Around the whole ground is to be a walk with wide borders for the arrangement of plants in scientific order. By the sides of the walks raised receptacles may be placed, so as to bring some of the more delicate bog earth plants nearer the eye.

An experimental garden may be rendered an important and interesting object, whether devoted to agriculture or manufactures. Professor Daubeny has devoted a portion of the limited space of the garden at Oxford to a series of experiments on the powers of agricultural plants, by which he endeavours to ascertain how long a plant will continue in constant cultivation before it exhausts the soil, and when one plant has exhausted the soil, what other will grow in its place. The rotation of crops, the subject of this examination, is one of the most important principles of modern agriculture, and one which greatly demands enlightened study.

By these several departments every facility will be given for the study of botany to whatever class of student may be desirous of availing himself of it; and one of the most important objects, the application of botanical productions to arts and manufactures, is particularly provided for. As far as means will permit, exertions will be made to promote the cultivation of such plants as may be most useful for these purposes, and to extend them in our own country and our colonies; and even if the society should do nothing locally, they have it in their power to further these objects, by giving prizes, as is done by the Society of Arts. To give every inducement for its local study, public botanical exhibitions will be opened periodically, in which an important feature will be introduced, by giving prizes for any new application of plants to manufactures, and for the best delineation of them, or

combination in a pattern. It is gratifying to perceive that it is the intention of the society to act like the institutions at Paris and St. Petersburg, as a central establishment, to form a union with provincial societies, and to afford every assistance to them and to individuals in the propagation of new plants.

The most effective way to render the gardens of advantage to the public is to devote great attention to everything that can promote its utility, and the simpler and more effective all its arrangements are made the more it will effect this end. A very important object is the placing the names of the plants near them in a conspicuous position, and such description should contain their scientific and common names, their country, and what are their economical uses. The catalogue should be as extensive and cheap as possible, and contain, in addition to the history of the plant and its particular uses, a chemical analysis of its several constituents; to this work should be prefixed a short explanation of botanical terms and the rudiments of the systems. Another necessary feature should be always, as far as possible, to accompany the description and the catalogue by analysis of the several soils in which the plants are placed, as this would call public attention to a department of science which is highly important, and in which, notwithstanding the efforts of Kirwan and Davy, we are still greatly deficient.

Having thus exhibited the general features of this plan, it is hardly necessary to augur its success, as that cannot fail to attend an object of such great interest and utility. We have sufficient evidence in the taste for floriculture, and the increasing cultivation of zoological and botanical science, that the public mind is sufficiently prepared for such an institution, and is perfectly capable of appreciating and supporting it; and if we wanted an instance of popular discrimination on this subject, we have a most admirable instance in the case at Dublin. The gardens of the Royal Dublin Society having been much neglected, gradually declined in public estimation; but in 1834, no sooner was an improved system adopted, than the lectures were crowded, and the number of visitors increased, in four years, from 7,000 to 30,000. That no improvement is lost on the public mind, we see again in the effect produced by the new regulations in the national collections in London, where every change for the better has produced a corresponding increase in the number of visitants.

In conclusion, the managers have but to follow in the course they have commenced, and the success of their institution will reflect equal lustre on themselves and advantage on their country, and redeem the honour of the giant metropolis from the deficiency of such an important embellishment. Its promoters may rest assured that it is only by enlightened management that these objects are to be obtained, while through it the enjoyments of their fellow countrymen may be promoted, and the greatest advantages conferred on the arts, sciences, commerce, and manufactures of their native land.

New Plants.

STACHYS COCCINEA. This plant is a native of Mexico, and bloomed at the Clapton Nursery with the *Salvia Patens*, &c. The plant grows about half a yard high, having numerous branches, flowering freely. The flowers are of a dull red; but though not brilliant, when grown in masses produce a pretty effect. It blooms in the open border from June to October.

CHOROZEMA ELEGANS. This new and beautiful species has recently bloomed in the greenhouse in the London Horticultural Societies Garden. The flowers are of a brilliant yellow and crimson, produced in large spikes. It is a very desirable plant for the greenhouse.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

DENDROBIUM CRUMENATUM,

(Bot. Reg. 22.

ORCHIDEE. GYNANDRIA MONANDRIA.

1. Discovered in various parts of the Indian Archipelago, and was sent from Ceylon by Mr. Nightingale, to his Grace the Duke of Northumberland, in whose Collection at Syon it has bloomed. The flowers are produced numerously on a terminal raceme. Each blossom is about an inch across, white stained with yellow. It is stated, that it varies with white and pink flowers.

DENDROBIUM AUREUM var. PALLIDUM. Golden flowered.

(Bot. Reg. 20.

ORCHIDEE, GYNANDRIA MONANDRIA.

2. This plant is a native of Ceylon, and has bloomed in the collection of Messrs. Loddiges's. Each flower is about two inches across, yellow and white, powerfully fragrant.

New and Rare Plants noticed in the London, and neighbouring Nurseries.

HOVEA PUNGENS.—This new species was introduced into this country by Baron Hugel of Vienna, and has recently bloomed in the greenhouse at the Tooting Nursery. The leaves are very narrow and long, giving the plant a very pretty appearance. The flowers are of a purplish blue colour, and produce a pleasing effect. It is a desirable plant for the greenhouse.

CALOYNE BARBATA.—This new and interesting orchideous plant, sent from the East Indies to Messrs. Loddiges's, and has recently bloomed in their collection. The flowers are produced on racemes. The sepals and petals are white. The labellum is white streaked, and stained with bright yellow, and at the base is tinged with pink.

PIMELEA INCANA.—is now in bloom at the Clapton Nursery. It is well known that the Pimeleas in collections produce their flowers in corymbose heads at the summit of the branches, and the plants usually become naked as they advance in size, but the present species, though ten feet high, is covered with branches, leaves and flowers, down to its very base.

The flowers are white, produced on terminal pendant clusters, and produce a most charming effect.

GARDOQUIA RETONICOIDES.—We saw this new species in bloom at the Clapton Nursery, at the same time as the *Salvia patens*. It is a herbaceous plant, blooming profusely in the open border in summer. It contrasts with *Salvias*, &c. it produces a pretty effect when in masses. It is a native of Mexico. The flowers are about the size of the pretty, and now well-known species, *G. multiflora*, of a bright rosy purple colour.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON DR. ARNOTT'S STOVE.—H. W. requests Mr. Harrison to inform him in the next number of the Floricultural Cabinet, whether Dr. Arnott's Stove will heat a greenhouse properly, and which is the best house in London for buying one?

We have not had an opportunity of seeing Dr. Arnott's Stove in operation to a plant house, but having been supplied by correspondents with the following remarks upon the subject, we give them for the information of our correspondent:

Having recently built a new greenhouse, and feeling unwilling to incur the expense of fixing a hot-water apparatus, yet anxious to spare the great expenditure of fuel, occasioned by brick flues, my attention was turned to Arnott's stove as a medium. Accordingly, in last December, I procured from Cottam and Hallen, one of their 18-inch stoves, which is now, and has been since then, in constant operation. My new house is 60 feet long, by 12 feet wide, with a span roof; the stove is placed at one end, within a few feet of the door. To explain why I had it placed at the end, rather than in the centre, let me here say that, feeling rather sceptical as to its efficacy in engendering sufficient heat, I had built at the other extremity of the house a common brick flue, 20 feet in length in case of exigency. I will now give the result of my observations.

During the frost of the 8th and 9th instant, with the assistance of one hour's heating of the flue in the evening with brushwood, the thermometer was kept up to 50 degrees, and, of course, the frost completely excluded. Still wishing to ascertain with greater exactitude the capabilities of Arnott's stove. I have had, during a very sharp wind frost, nearly 30 feet of the house next the stove partitioned off by mats, so as to give me a small greenhouse, 30 feet long, 12 feet wide, and 10 feet high. In this house, then, has the stove given all day, with a moderate fire, and the consumption of not quite a peck of coke, from 50 to 60 degrees of heat. To take off the arid and rather harsh nature of this heat, I have had a zinc pan of water 2 inches deep, and 18 inches square, placed on the stove; the evaporation of which gives all the softness and moisture that can be wished for.

It must be borne in mind, that in this trial 9 feet of the glass roof out of 15 feet have been covered with double mats, as is usual in severe frosts with all greenhouses. At this moment, 8 p. m., the thermometer in the open air, is at 28 degrees. In the house of the before mentioned dimensions, heated by Arnott's 18-inch stove, it is at 60 degrees.

I hope I have now said enough to convince plant-growers, that for small greenhouses, or even for moderate sized ones, this stove will effectually keep out frost, which, of course, with greenhouses, is all that is required. For plant amateurs, particularly for those who do not keep a regular garden, is invaluable; for the little attendance required can be given by a maid-servant. No overheating can take place, and no danger to buildings is incurred; and if the simple prevention is taken, of sprinkling the inside of the stove, when it is cold, with water, to lay the dust, preparatory to cleaning it, not the least particle of dust escapes. This is a great advantage, as all other stoves give so much dust, as totally to unfit them for plant-houses. To nurserymen and dealers in greenhouse plants, this stove is indeed a boon, for what numbers of lovers of greenhouse plants have been deterred from

undertaking their cultivation, owing to the daily and nightly care required during frost, to keep brick flues regularly heated; and sometimes, owing to the great expense of fuel, and the calculation that the frost would not be severe, a fire has not been lighted some nights at the end of winter, and then all the previous care has been destroyed by the admission of frost to the plants. Now, with Arnott's stoves, any pit or large frame may be made frost-proof; and, as the consumption of fuel is so trifling, a fire may be lighted every night, and the expense not felt. Some caution is certainly required in purchasing these stoves. I bought two of an inferior construction, and found them both useless. Fortunately, Messrs. Cottam and Hallen had supplied a neighbour with one of the regular construction to heat his servant's hall, a room of large dimensions. This acted so admirably, that I immediately procured one from them; the effects of which I thought it my duty to give you, to register in your legitimate pages.

SAWBRIDGEWORTH.

T. RIVERS,

As there is at present an anxious desire amongst the public to know what Dr. Arnott's stoves are capable of performing, as regards heat, and as I have six in use, and have paid great attention to the working of them, you may be glad to hear the results. But I now allude more particularly to obtaining a bottom heat from them for early forcing. I have just erected a pit 20 by 7, and formed an air chamber under the whole length; on the top I have placed netting works, supported by wood rafters, (iron would be better, but this was by way of experiment); on that I have laid turf with the grass downwards, and on that again I have placed dry mould. At one end is the Arnott stove, the smoke of which is conveyed through the whole length of the air chamber by a small brick flue, four inches in diameter, and comes out at the other extremity of the pit. The result is, that I have as beautiful a bottom heat throughout as can possibly be required. How the plants—melons I intend it for this spring, and pines afterwards—will grow in it, remains to be proved; but I have no doubt whatever about them in my own mind. I have also three tubes at equal distances, communicating with the air chamber beneath which I can open and close at pleasure to let out the hot air when I have too much. They will be further useful for pouring in water, to prevent the heat from drying up the mould which it might be apt to do, unless some means of that sort were resorted to. I give you this early notice of it in the hope of inducing others to make a similar experiment, as the season is but just commencing, and, by the end of it, we may have some practical men giving us their opinions upon it. The advantages that are derived from it are numerous; all fermenting materials, which are always expensive for large pits, will be saved; the trouble and all the filth and dirt of renewing linings will be done away with. The expence of the fire cannot exceed twopence in the twenty-four hours, and a stove to answer every purpose may be got for £2. The six I have in use consume just one hundred weight of culm in a day and night, which costs here tenpence halfpenny per hundred weight. One is placed in a pine pit, another in a bothouse applied to a boiler, and the others are in different rooms in the house. The average expence of the whole together is not twopence per day and night each.

You will see by this account, that a great deal may be done with them at a very small cost, and that many of the annoyances attending forcing, may be entirely overcome by the use of them.

GARD. GAZETTE.

ANSWER.

ON INK SUITED FOR WRITING ON METALLIC LABELS.—In answer to your correspondent Y. M.'s inquiry in last month's Cabinet, "On Ink suited for writing with upon Metallic Labels;" I beg to inform him that from experience I find in order to be perfectly secure, and to preserve the complete identification of my plants, that it is absolutely necessary to use the pre-

pared Ink which has been advertised with the prepared Labels. I have used unprepared Zinc Labels with, and without the prepared Ink, but I have found myself frequently disappointed by the complete obliteration of the names, which has proved very inconvenient to me, particularly in the naming of my Dahlias. Since my adoption (which has been for some years) of the use of the prepared Ink with the prepared Labels I have not met with a disappointment.

A CONSTANT READER.

REMARKS.

THE HORTICULTURAL SOCIETY'S GARDEN.—We recently called at the before mentioned garden, and were not less surprised than delighted, when shown the foundation part of which was then completed, being the commencement of an erection which will give credit to that wealthy and Honourable Society. In the February number of the 'Botanical Register,' Dr. Lindley thus speaks of it, "all who are interested in the cultivation of exotic plants, will be glad to learn the Horticultural Society of London, are about to erect a most extensive conservatory in their garden at Chiswick. The range will be nearly 500 feet long, running east and west, with a front both to the north and south. The roof will be constructed entirely of iron, glazed with patent sheet glass, and will have the form of a gothic arch. The west wing rather more than 180 feet long, and 27 feet high, has been contracted for by Messrs. D. & E. Bailey, of Holborn, and will probably be completed by the middle of May. The whole range when executed, will be one of the most extensive in the world." The Doctor proceeds to observe, "It is now to be expected that greenhouse and stove plants, especially the former, will become a great object of attention with the Society; the effect of which will doubtless be, to improve the ornamental character of tender plants, in the same degree as that of hardy collections."

ON THE PLANTAIN.—At the meeting of the Royal Horticultural Society on Tuesday evening, Professor Johnson is reported to have made the assertion that the Plantain, (as in the remarkable instance of corn,) "has never been met with in a wild state, but only within the precincts of cultivation," and immediately afterwards, we are carried away from its native land to the extremities of the habitable earth, in search of the uses to which it is applied. The wild Plantain, called by some *Musa sylvatica*, found over the whole range of Ghauts, extending nearly from Surat to Cape Comorin, and in the vicinity of Bombay, is one of the most common of jungle plants; whether this is the true and original *Musa paradisiaca* or not, remains to be proved, I believe it so to be; the difference between the wild and cultivated variety, (if such it may be termed,) being, that the former springs up in June, the commencement of the rains, and dies down at the end of the year, even in spite of irrigation, which is not the case with the latter; and that in the former the whole contents of the fruit consists of seeds nearly as large as a sweet-pea, but of which in the latter scarcely a trace is discernible.

March, 28th, 1839.

CIVES MUNDI.

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, Browallis, &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. *Lobelia*s for the greenhouse should be similarly treated, as to potting, &c.

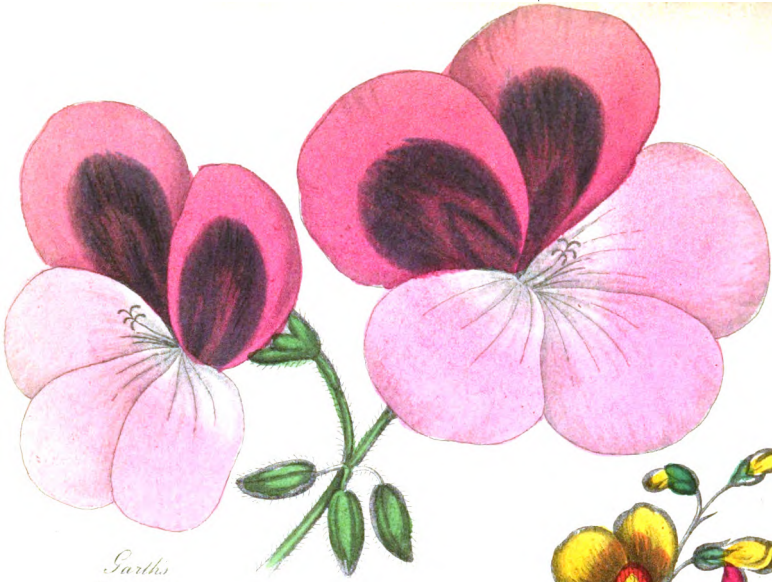
FLOWER GARDEN.—Continue to protect beds of Hyacinths, Tulips, &c. Carnations in pots should be encouraged by manure water, &c., in order to grow them vigorously: care in striking them will be required. By the middle of the month, half hardy annuals—as China Asters, Marigolds, &c.—may be planted out in 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, Scabions, 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.

ECLIPSE, KING OF HEARTSEASE, AND BEAUTY OF EDMONTON, are among the splendid Seedling Panzies raised by Mr. Page, of Edmonton Nursery, and advertized for sale in previous numbers of the Cabinet.

LORD DURHAM, AND GENERAL WOLFE, are very fine Seedling Panzies raised by Mr. James Burly, Florist, Simpsfield, near Godstone, Surry, (see advertising sheet for the present number.) We have drawings of some other very fine Seedling kinds sent us by the above gentlemen, which will appear in some future number.

June 1897



Sarths
Sour of. be.
Pelargonium.



Chorizanthe varium.



Gladiolus ramosus.

THE
FLORICULTURAL CABINET,

JUNE 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE PRESENT TASTE AND STYLE OF ORNAMENTAL
GARDENING.

BY MR. JOHN FOREST, GARDEN ARCHITECT, &C., ROSS.

As gardening was one of the first, so is it one the most delightful occupations of man; it contributes to his necessities, as well as to his comfort and pleasure. The cultivation of salutary herbs, and grain, and fruit for diet, were necessary to his existence; and that of flowers for their scent and beauty, and of trees for shade and shelter, was equally necessary accompaniments. Hence the calling became divided into distinct branches, namely, kitchen, fruit, flower, and ornamental gardening. The two first, though of most real utility, are considered subordinate to the two last, more especially the last of all, which has been dignified by the title of, "*landscape gardening*." The term has been borrowed from that given to any prospect of a country, but particularly from those works of art depicting wild or ornamental scenery, called landscape paintings, representing any space or region of a country, with its various objects.

The first ornamental gardens of which we have any good account were regular enclosures, with everything they contained arranged most symmetrically, justifying the often-quoted sarcastic couplet of our poet Pope:—

"Grove nods at grove, each alley has a brother,
And one-half the lawn but just reflects the other."

This rectilinear and rectangular style of gardening was, however, quite natural to man in the earlier ages of the world; he saw

nature in all her wildest forms around him, and, as lord of the creation, he felt a kind of instinctive desire to bring her under his controul; he wished a contrast and a disposition of his trees, and boundaries that would mark or secure his possessions, and, at the same time, exhibit his skill as well as his sovereignty. Art was then his idol, not Nature; and everything he did was to show how much the latter was under his dominion.

This artificial style of gardening continued to prevail in every civilised country, from the earliest times till after the beginning of the eighteenth century. Before this epoch, Le Nôtre, a French garden architect and ornamental gardener, was extensively employed in almost every nation in Europe; and some portions of his designs are still to be seen in France, and many imitations of them everywhere, as well in this country as on the Continent.

While Le Nôtre and his contemporaries were driving every trace of nature from their garden scenes, the painter was at the same time enthusiastically engaged in studying her in her wildest forms, and copying every incident in real scenery which would improve his studies or enrich his pictures.

Before the period to which we are alluding, many eminent painters had immortalized their fame by the beautiful landscapes which they had painted. Among the celebrated paintings, it is remarkable that very few trim garden scenes were represented, especially as the artists, both gardeners and painters, were probably admirers of each other. This, however, is only an instance of how much the human mind is liable to be enchained by custom or reigning fashion. The idea had not yet been entertained, perhaps, that the principles of ornamental gardening and landscape painting are the same; for, in practice at that time, the artists took directly contrary routes: the painter studied nature only, while the gardener busied himself in cutting and slashing vegetation into all the most fantastic regular figures his ingenuity could invent. Geometry, with its lines and rules, was his text book; without this he could not trace a line, or prune a tree, or trim a hedge. On the other hand, nature, in all her varied forms, and habits, and hues, were seized and imitated by the painter, tracing her on the mountain steep, or in the secluded dell, by the sparkling river side, or on the banks of the placid lake.

Thus, at one time, were painters and gardeners employed, both occupied in arranging the same objects; the one forming

real, the other pictorial scenery, but with very different views : the first was enamoured of "neglect and accident;" the other seriously annoyed if a single leaf projected from the smooth surface the shears had made.

The love of gardening and of fine pictures, however, keep pace with each other, and were often united in the same cultivated mind; indeed, we seldom meet a virtuosa who is not equally enamoured of all the fine arts. Both gardeners and painters were employed in the embellishment of regal, noble, ecclesiastical, and manorial residences. While the exterior was graced and adorned by the former, the interior was decorated and enriched by the latter. The painter's landscape at last "bore away the bell;" the admirable scenes presented on canvass were extolled by every unsophisticated eye, and merely because they were more true to nature; and when compared with the most laboured garden dispositions, the latter sunk in public estimation, and was soon followed by the cry—*Why is not every gardener a painter?*

This impression was so strong after the new light broke in upon the minds of the *cognoscenti*, that Kent, a painter by profession, was actually induced to become a landscape gardener. His new task was not a pleasant one; he aimed at producing immediate effect, as he used to do in his studio; but this was impracticable, as he found he must wait many years before he could possibly see the full effects of his dispositions of trees, shrubs, &c.

The first attempt by Kent was certainly a failure, because, in straining to do on the naked lawn what is so easily done on canvass, he made himself ridiculous, by planting dead trees, and several other freaks, which, however objectionable as the effects of time or accident in real scenery, become quite ludicrous if imitated by art and labour.

But as many places at that period were capable of great improvement by merely clearing away redundant growths, the painter's ideas were in such cases highly valuable, and their assistance was duly acknowledged; and consequently improvement by abstraction, or simple clearing away, became the rage. Hence a reformation (by far too radical however) took place. Every connoisseur wondered how the contracted ideas of the gardener could have been so long tolerated; a kind of remorse was felt that the visual enjoyment of real pictures should have been so long withheld; a sweeping sentence of condemnation was instantly pronounced by the arbiters of fine taste, and open war was

declared against every right line and right angle, and against every perpendicular form of Dutch or Italian gardening.

Soon were the venerable avenues uprooted—the airy terrace and the verdant slope levelled with the general surface of the ground; every nicely-clipped hedge or arcade, pyramid or globe, were quickly banished from the lawn and gardens; right lines, whether of roads, or walks, or fences, were diverted into regularly flowing sweeps; the mansion which had been for years partially shaded and veiled by trees, was set out and exposed on a smooth and closely shaven lawn; hedge-row trees were exchanged for insulated clumps dotted over hill and dale; and straight and visible fences, gave way to crooked and invisible Ha ha's!

Thus the regularity of the old style was excluded, to admit the irregularity of the new; a change too recklessly made, and which has proved, in many instances, only a change from one kind of sameness to another fully as tedious and uninteresting.

Nor was the new style an imitation of what it was presumed to be founded on, namely, the painter's ideas of the most beautiful or most picturesque combinations of land, wood, and water. The opinion of the first reformers appeared to be, that, to depart as much as possible from the old style, by introducing irregularity, was all that was wanted to give the new scenery a truly and natural character.

The new style received the title of "English gardening;" and certainly there were some very perfect things of the kind executed in different parts of the kingdom, not, however, by clearing all the old features away, but by a judicious reservation of part of them, and not by an implicit adoption of every suggestion of the reformers, but by a tasteful rejection of many of their dogmas.

It is perfectly true, that, though the guiding principles of composition of both the painter and the landscape gardener are the same, there must necessarily be a great difference in the execution; the one endeavours to gratify the present, the other future generations. The painter can brighten his lights, deepen his shadows, give play to his outlines, and mellow his tints at pleasure, so as to preserve a well ballanced display of light and shade; all his objects whether on the foreground, in the middle distance, or in the off-scape, he can dispose as seems to him best. The height, and distance, and form of the mountains; the character and extent of water; the very forms of the clouds, and tints of the sky, are

all as his fancy or taste suggests. And neither is the painter confined to the real character of the trees, and shrubs, and herbs which he introduces into his picture; a burdock, or other monstrous weed on his foreground, answers his purpose as well as the finest plant in cultivation. Such worthless plants in a painting give no offence to the beholder in any way; and, moreover, the rudest, wildest scene may be preferred for the canvas, but which is seldom or never required to be, nor indeed ever should be formed by the gardener, because the most trifling mark of art about such a work robs it of every charm which it would otherwise possess.

The landscape gardener arranges all the ornamental planting of the park, and particularly near the house. Here comfort, convenience, cleanliness, and every other sign of high keeping and art must prevail; here all the taste and skill of the gardener should be displayed; here his ideas are peculiarly applicable; and when these foreground dispositions are fixed, he has to design and connect the scenery of the park therewith, and that of the surrounding country with both.

In the execution of all this, the most refined taste, united with a large share of practical, botanical, and arboricultural knowledge is absolutely necessary; and in this it is said the professional ideas of the painter would be available. Let us suppose, then, that a Claude Lorraine were engaged with the gardener in laying out an English garden; the trim neatness, smoothness, and regular edges of the walks and borders of the latter, would offend the eye of the former, who would rather see roughness, intricacy, and indistinctness prevail. This, however, would not be suffered near the abode of refinement and affluence; but the painter would advise the gardener to conceal his hard lines; to break the uniformity of the clumps; to give variety to the masses of planting, by associations of trees and shrubs of different tints and character; to place on the foreground the strongest growing herbs, the coarsest featured shrubs, and the quickest growing trees to flank the vistas which he would wish to have extended across the park, or which would let in distant objects of interest in the country beyond. The painter would also advise but few single trees to be planted, without having a few shrub like growths near their base; and also that all clumps and groups should be of one kind of tree, irregular in outline, and intermixed with under-growths, to creep out on the turf around them.

If water entered into the composition, the painter would advise it to be disposed in its natural place—the lowest ground; and whether a lake or river, he would have it as unlike a canal as possible. The natural abruptness of the banks he would preserve, as well as all their sinuosities and overhanging trees and bushes. Nor would he be anxious to expose too much of the water in one place, unless it would appear as a reach, either advancing towards or receding from the eye, for the sake of the reflections from the ripple on its surface. If a lake, he would choose to have it of a very irregular shape, and as much diversified by trees and islands as its size would allow, carefully masking its extremities, if such were too visible.

If buildings of any description, either for use or ornament, were in the landscape, the painter would advise them to be partly concealed, and only allowing the most ornamental or characteristic angle to jut out from among trees. If the park was of a finely undulating surface, consisted of smoothly rounded knolls, with winding dips between, the painter would adapt the forms of his groups and thickets, and the characters of the trees to correspond. On the other hand, if the environs presented strong natural features, as cliffs and rugged declivities, deep ravines forming the beds of mountain streams, &c., he would add such accompaniments of vegetation, alpine and aquatic trees, &c., as would harmonise with the general aspect of the place, so as to produce (whatever may be the character of the district) a well connected and harmonious whole.

Now if all this would be advised by a painter, or an amateur having a "painter's eye," it differs not a jot from what would be done by every landscape gardener who knows his business, or who deserves the name. Hiding the hard lines in the dressed ground, and employing more under-growths among the trees in the park, are the only additional amendments in the common practice, which the painter could recommend in laying out a park in the English style. He would also object to any great extent of lawn being seen from any principal station, because nothing is so horrifying to a painter as great blotches of any one colour on the canvas, without chequering of shadows, of flocks or herds, or of other objects admitting variety of tints; and therefore a park laid out by a painter would be rather a series of diverging glades, than a park dignified by the grandeur of its vast masses of wood, and its expansive extent of verdant turf.

That many of our parks, laid out in the style last alluded to, are lifeless and uninteresting, must be acknowledged. In passing through them, though they may have an air of grandeur suitable enough for a regal or ducal palace; yet no part of such scenery would be admired by the painter, because wholly unfit for the canvas. Hence it may be inferred that an English landscape gardener's park may be very suitable for a residence, and yet by no means equal to the *beau ideal* of a connoisseur, who may be blessed or plagued by possessing a painter's eye. Still it is very possible to bring the extremes nearer together; to diversify and enrich the naked tameness of the "capability" style; and to soften the asperities, and qualify the exuberance of imagination observable in some of the most celebrated paintings. J. F.

ARTICLE II.

ON THE CULTIVATION OF ERICAS,

BY THE FOREMAN OF A LONDON NURSERY.

HAVING had considerable experience on the culture of this beautiful and interesting tribe of plants, I submit the following practical observations to the notice of your readers.

Like all mountain plants, they will not long flourish in a damp or impure atmosphere, nor in one, however dry, if excluded from a free circulation of air, and full exposure to solar light. It follows, therefore, that in the selection of a proper habitation for them, one fully exposed to the sun, and in a perfectly dry situation, and constructed so that the plants may stand near the glass; capable at the same time of ventilation to the fullest extent, with the front and roof sashes rendered moveable when required, will be the most proper habitation for them.

A span-roofed house upon an economical scale, is well calculated for the cultivation of Ericas and their near associates. The whole of the side and roof sashes should be moveable, the height over the passage about seven feet, and the width eighteen, allowing three feet for each passage, three feet for the breadth of each of the front platforms, and five feet for the centre one, on which the largest plants are intended to stand. The top part of the roof should be covered with boarding of one foot from each side of the ridge. This is to support an awning of canvas, mounted on rollers, to exclude the cold during intense frost, and enable

the cultivator to dispense with fire heat, which I find is very inimical to the plants of this order.

From November till March the latter covering is occasionally required, and the former for shading occasionally, from June till September, after which periods both may be removed. The foliage of the heath tribe would sustain without injury the greatest degree of sun heat we ever have in this country; but it is the roots that require protection by partial shading, for when the sun acts fully on the pots they become heated to a great degree, and as the roots of all healthy heaths and similar plants are in close contact with the pots, they are rapidly dried up, or heated beyond the degree that they are capable of bearing; for as in their natural habitations they grow amongst thick herbage, and are partially shaded about their roots, they consequently are kept much cooler than if they were growing without any covering whatever. There are, however, some exceptions to this rule; but by far the greater number are so circumstanced.

No doubt heaths have been successfully cultivated in houses of the most ordinary description, but the success attending their growth has depended principally upon free ventilation, moderation in watering, an almost total absence of fire heat, a full exposure to the sun, and closeness to the glass.

Ericæ, like most similar shrubs, are readily increased by seeds and cuttings, and rarely by any other means. Seeds are often imported from the Cape of Good Hope, and are also frequently ripened in this country; from both of these, hybrid varieties are very likely to be obtained, for I believe that many heaths cultivated in this country, and considered as species, are no other than hybrids originated from seeds procured by one or other of those means. When we consider the operations that are constantly going on in nature, in regard to this subject, both in a wild and in a cultivated state, we are only astonished that more numerous varieties have not been recognised.

The best time for sowing seeds of this order is early in spring, say February and March; and for this important reason, plants originated from seeds sown in spring, will attain such a size and strength before autumn, as to enable them to outlive the winter following, which is a trying time for young plants. In preparing pots for this purpose, they should not be too large, 32's is the best. We need hardly remind the most inexperienced in cultivation, that they should be well drained, by being filled at least

two-thirds with broken pots, small stones or cinders. The soil used should be of the sort called very sandy peat. The seeds should be sown on the surface, (which must be made smooth and level,) and scarcely covered at all. When sown, watering should be regularly attended to, and applied with the finest rose pot. They should be placed in a cool, shaded frame, under glass, or plunged in a rather damp border, where the sun seldom shines, and covered with a hand glass. In such a situation water should be seldom applied, because the seeds being so minute, they are liable to be washed off in the process, and therefore, the less frequently they are watered the better. As the young plants appear, air should be progressively admitted to them, and every precaution now taken to guard against damp, an excess of which, as well as an excess of drouth, would be equally fatal to them in this state. When the plants have attained the height of one inch or so, they may be transplanted into small thumb pots, placing three, four, or five in each, as near to the edge of the pot as possible. From some cause, not easily explained, we find that young plants and cuttings root faster when placed in close contact with the sides of the pots in which they are planted, than when they are placed more towards the centre. After this first potting, they should be kept for eight or ten days in a close, cool frame, or pit, shading them from the sun in the middle of the day, and gradually exposing them to the air, until they are found to be so established as to stand the full heat of the sun. The greatest attention must be paid to a regular system of watering, for if they be allowed to become too dry, they will die off in a few hours time, and if kept too wet, they will damp off in an equally short period.

Almost all will strike root by cuttings; some sorts, however, requiring a longer period to do so than others. The most eligible wood for this purpose is the young wood of the present year's growth, when it becomes partially hardened, so as not to be liable to damp off. It would be impossible to convey an idea to the uninitiated, of the proper state that the wood should be in for this purpose, but the cultivator who knows anything of the matter, will readily understand me when I say, the wood should be fully matured, but before it had attained its dark colour, and to be, when slightly pressed between the finger and thumb, somewhat firm, but neither yielding to the touch nor yet quite hard. In regard to the length of the cuttings, much depends on the habit

of the different species. Some of the robust growing sorts may be from an inch to an inch and a half in length, while others of the more shy growing kinds can only be obtained about half that length. The cuttings selected, should be chosen from the healthiest plants, and taken off close to where they issue from the old wood. In preparing the cuttings, the leaves should be cut clean from the shoot, either with a sharp knife or fine pair of scissors, the end should be cut transversely across in a neat manner, so as not to leave the wound ragged or bruised. The leaves should upon no account, be shortened, neither should any more of them be taken off than just so far as the cutting is to be inserted into the sand.

With respect to the proper season for putting in cuttings of this order of plants, and indeed of most other slow growing kinds, the spring is the best, for the same reason given above for sowing seeds.

It sometimes happens, however, that cuttings cannot be obtained in a proper state at that season : when such is the case, recourse must be had to inducing the old plants to make wood fit for the purpose. This is to be effected by placing them in a little heat early in spring, they will then make plenty of young wood, which is the best for cuttings. In extensive genera, like that of *Erica*, it would be impossible to state any particular period of the year for commencing the operation of propagation by cuttings, because some one or other of them are in a fit state for the purpose on almost every day in the year ; therefore, the time for putting in cuttings should be regulated rather by the state of the plant than by the time of the year.

In extensive nursery collections, where great quantities of plants are wanted, one pot may be filled with cuttings of the same species, when such can be got in sufficient quantities ; but in private collections this is not necessary, for a few plants of a sort, in general, are all that is required. When this is the case, the kinds selected to be put in the same pot, should be nearly of the same habit as can be judged of at the time.

Unless this is attended to, one sort will be found to strike root in a much shorter time than others of the same pot, which makes it more inconvenient when potting them out. This, however, must always happen to a certain extent, for a little difference in the age or firmness of the cutting, even when the work is performed by the most experienced hand, will often make a difference in

the time required to strike root. When the pot is thus filled with cuttings, it should be well watered with a fine rose watering pot, and placed in a close shady part of the stove, admitting as little air as possible near to where the cutting pots are placed, taking care to water them freely every day. Indeed when put in this way, there is no risk of overwatering them; for having them well drained, the water is allowed to pass freely through, and so far from injuring the cuttings, they are benefitted by it.

However excellent the above mode of striking heaths may be, it cannot, under all circumstances, be applied in practice, because there are many cultivators who have not the convenience of a stove to place them in. A substitute for the stove may be found in a well regulated cucumber or melon bed, in which many strike heaths and other hard-wooded plants very successfully. The reason for applying heat to the cuttings is to excite them to the greatest possible degree, during which they will, if they are in a fit state, strike root very soon, or damp off at once.

The more usual method of striking cuttings of the generality of heaths, is to plunge the pots into coal ashes, rotten tan, or similar matter, in a rather damp, shaded border, covering each pot with a bell glass, and the whole with a close frame and lights. By this method the cuttings are longer in rooting, but as it is within the reach of every one possessed of a garden, however small, and, therefore, as it is attended with less risk from inattention, &c. we recommend it to their attention. It is necessary in preparing the pots for the cuttings, to select them about equal sizes, say that of thirty-two's, and to fill them to within an inch and a half from the top with broken pots, cinders, coarse gravel, or small stones, over which a thin layer of moss, (*hypnum*,) should be placed to prevent the finer particles of mould from being washed down amongst the drainage. The pot should then be filled to the brim with fine, pure white sand, as free as possible of earthy or iron matter, but as this is seldom to be procured sufficiently free of those matters; it may be well to wash it by putting small quantities at a time into a bag, and dragging it frequently through a cistern, or stream of water. When put into the pot it should be well watered, and pressed firmly down, the surface made smooth and level, and the cuttings put in as soon after as possible.

In the propagation of heaths it has been almost universally maintained that bell glasses should be used under all circumstan-

ces, that is, whether they be placed in heat, in a shady border, cool frame, or pit. When glasses are used, the greatest care must be taken that they be kept regularly wiped at least once a day to prevent damp from destroying the cuttings. Cuttings placed in a cool shaded border, frame or pit, should certainly be covered with bell or hand glasses, and these should remain on until they are rooted, and taken off only for the purpose of being wiped, and any damp or mouldiness removed from the surface of the sand in which they are placed. Regularity in watering, and also in shading, is absolutely necessary to insure success. When the young cuttings begin to grow, air must be gradually admitted to them, so that by the time they are rooted and fit for transplanting they may be able to withstand the sun's heat, and free exposure to the air.

(To be continued.)

ARTICLE III.

ON CHINESE GARDENS.

(Continued from page 108.)

There are, in different parts of China, many works of the kinds just mentioned; but amongst the most considerable, are counted the Passage of King-tong, the Bridges of Fu-chew, those of Swen-chew and Lo-yang, with the Cientao, in the province of Xensi.

The first of these is a communication between two precipices, composed of twenty enormous chains of iron, each two hundred feet in length, which are covered with planks and earth, to form the road.

The second is a cluster of bridges between Fu-chew and Nanti, uniting various islands, that divide the river into different streams the principal of these consists of one hundred arches, of a sufficient size for the passage of ships under full sail; it is built of large blocks of hewn stone, and enclosed with a magnificent marble balustrade, the pedestals of which support two hundred Colossal lions, artfully cut in the same material.

The third is a bridge at Swen-chew-fu, built over an arm of the sea, that sometimes is very boisterous: it is above three quarters of a mile long, thirty-five feet wide, and consists of one hundred and thirty piers, of an astonishing height, upon which are laid vast blocks, of a greyish granite, that form the road.

But the largest and most surprising work of the sort, that yet has been heard of, is the bridge of Lo-yang, in the province of Fokien: it is composed of three hundred piers of black marble, joined to each other by vast blocks of the same material, forming the road, which is enclosed with a marble balustrade, whose pedestals are adorned with lions, and other works of sculpture. The whole length of the bridge is sixteen thousand two hundred feet, or upwards of three miles; its width is forty-two feet; and the blocks of which it is composed, are each fifty four feet long, and six feet diameter.

The Cientao, or Way of Pillars, is a communication between many precipices, built to shorten a road to Pe-king. It is near four miles long, of a considerable width, and supported over the vallies upon arches and stone piers of a terrifying height,

In the mountains, on each side of these imperial roads, are erected a great number of buildings, surrounded with cypress groves, and adorned with works of sculpture, which afford constant entertainment to the passengers: these are the monuments of their wise men, their saints, and their warriors, erected at the expence of the state, and furnished with nervous incriptions, in the Chinese language, giving an account of the lives and actions of those they commemorate: some of these buildings are distributed into many spacious courts and stately apartments being little inferior to palaces, either in magnificence or extent: they are furnished with all kinds of movables and utensils, much larger than the common size; and a great number of Colossal figures are every where seen, representing officers, soldiers, eunuchs, saddle-horses, camels, lions and dogs, all placed in melancholy attitudes, with countenances expressive of the deepest sorrow.

Instead of roads, the center avenues are sometimes formed into navigable canals, from one hundred to one hundred and fifty feet wide, being sufficiently deep to admit gallies and other small vessels; with horse-ways on each side of the canals, for the convenience of towing them, either against the wind or the stream. On these the emperor, and Chinese mandarines, are frequently conveyed, in large magnificent sampans or barges, divided into many splendid rooms: being sometimes attended by a considerable train of smaller vessels, of different constructions, adorned with dragons, streamers, lanterns of painted silk, and various

other ornaments ; the whole composing a very brilliant and entertaining show.

All the imperial forests, besides the high roads which pass through them, having many spacious avenues cut in the woods, spreading from different centers, like rays of stars, and terminating at idol temples, towers, castles, and all the interesting objects of the circumjacent country. The centers from which these avenues part, are of a circular or octagonal figure, with eight avenues ; or of a semicircular form, with only three branching from them. Their area is generally very considerable ; and its middle is adorned with a triumphal arch, a pagoda, a magnificent fountain, or some other considerable monument.

Where the extent is vast, each single avenue has besides, in its course, one or more open spaces, from which a number of smaller avenues again branch out, and terminate at many buildings, erected in the woods, for various purposes ; all which, without any confusion, add to the variety and intricacy of these compositions ; giving them an appearance of immensity not to be conceived, but by such as have seen them ; and wherever a deep valley, a large river, or an arm of the sea, interrupt and break off the course of the avenues, the plantations are nevertheless continued on the opposite shore, in order to make them appear more considerable :

In straight roads, of smaller dimensions, the Chinese very artfully imitate the irregular workings of nature ; for although the general direction be a straight line, yet they easily avoid all appearance of stiffness or formality, by planting some of the trees out of the common line, by inclining some of them out of an upright ; or by employing different species of plants, and placing them at irregular distances, with their stems sometimes bare, and at other times covered with honey-suckles and sweet-bryar, or surrounded with underwood. They likewise cut and dispose the branches of the trees in various manners ; some being suffered to spread, to cover and shade the walks ; whilst others are shortened, to admit the sun. The ground is composed of rises and falls ; and the banks on each side of the walk are, in some places, of a considerable height, forming hollow ways ; which they often cover at the top with bushes and trunks of fallen trees.

(TO BE CONTINUED.)

REVIEW.

The Boquet, or Ladies' Flower Garden, being a Description of those plants which will flower in the Room, and the Treatment most suitable for them.—By a Florist, Simpkin & Co. 12mo. pp. 102.

(Continued from page 112.)

“I shall therefore describe its whole treatment, beginning with the time that the bud has formed itself, which is generally in October, or November at the latest. Hitherto they have been kept comparatively cold, but as the winter approaches the windows are closed, and large fires constantly burning during the day, when at night the fire is allowed to go out, and consequently the room again becomes cold; this continual change of temperature, from cold to warmth, is one of the principal reasons of the buds falling off, for before the month of December the rooms were quite cool to what they are at this season of the year; it will therefore be perceived that it is highly necessary that the temperature be kept as nearly equal as possible; but I do not recommend keeping them in warmth at any time, although the temperature may be equal, it being quite an erroneous idea that they require heat to bring them into flower; and I have found that the most beneficial mode of treating them is by keeping the plants in a cold room, where there is hardly any fire kept, for it is a plant that in mild seasons will stand out of doors during the whole winter without receiving any injury; when in a cold room they will require very little water, once a week will be sufficient, unless the plant is evidently getting dry, which is not likely to be the case during the month of January and beginning of February; very great attention should be paid to its watering, as it is at this season that the buds commence to swell very fast, and the least overplus will cause them to drop off; therefore the quantity of water given must rest entirely to the judgment of the person who gives it, only having always in view that the plants must never be allowed to get quite dry, and at the same time not very wet. About the latter end of January, and again the first fortnight in February, it would be very conducive to the health of the plant to have the leaves carefully washed of all dust, which at this time they are sure to be covered with; after they have done flowering, they may be kept in a room where there is a fire, as at this particular stage of the plant heat is very useful, as it assists the growth of the plants, and the young shoots have time to ripen their wood before they set for bloom, which will be about October; they should then be put into a cold room, and receive the treatment already described, and which will be found to succeed if properly attended to.

Epacris.—Of this very beautiful and showy tribe of plants there are very many fine varieties, which continue flowering du-

ring the whole of the spring months; in its appearance, both in flower and leaf, it resembles very much the *Erica*, and like those beautiful plants, blooms in great profusion. The species which flowers the earliest is *E. campanulata rubra*, a very pale rose-coloured flower, which is generally in flower by the latter end of January, and when in full bloom is very beautiful; as, from the extreme delicateness of its colour, it will bear no comparison with any other tribe of plants. *E. impressa*: the flower of this kind is much longer and narrower than the former, and is of a deep rose or red; it does not flower until nearly a month later than the other, and for show is one of the gayest in the whole tribe, as, when it is in its perfection, the plant is so covered with flowers that it is only at the extremity of the shoots that the leaf is discernable. There are also two very fine white ones which flower about this time, *E. nivalis* and *E. campanulata alba*: the latter is certainly the handsomest of the two, having a much larger flower and being of a clearer white; although *E. nivalis* flowers the most abundantly, and therefore makes the most showy appearance. There is also a pretty variety, which is called *E. grandiflora*: this species continues flowering the greatest length of time of all the species, but never has so great a profusion of flowers in bloom at one time as the others; the flower is about an inch and a half in length, being of a bright crimson towards the stalk, and at the mouth a pure white, so that the individual flowers are by far the most striking to the eye. There are scarcely any of this tribe of plants which have any smell, but that which they want in sweetness they will repay in beauty. In their treatment they should be watered once a day, and kept rather wet in preference to being very dry; and will flourish equally well in a cold as in a warm room, and ought to be kept near the light.

Corchorus Japonica.—This plant is perhaps better suited to large collections than small, but as there is not so very great a variety of flowers during the early part of this month, it is not so very objectionable, especially as it is a pretty growing plant, and having a bright green leaf, with double yellow flowers, which blossom up the whole of the stem amongst the leaves. It is very convenient in its treatment, as it flourishes in a cold room, or in a heated one; if there is any difference, it grows with greater vigour in the warm room than in the cold, and will bear a good supply of water. It would rather be advisable to have a saucer placed beneath the plant, with a little water in it.

Daphne Mezereum.—This plant is perfectly hardy, and therefore need not be placed in a room, but will do very well outside the window. When in flower it is very gay, having a dark lilac flower, which blooms up to the branches, and is, when in full flower, very sweet. It never has any leaves while in blossom, but makes up for this loss by the great abundance of bloom which it produces. When placed in the open air, it will not require water more than once a fortnight, and if the weather is very frosty not even that. There are several other plants that bloom at the

same time as this, which make a very pretty mixture, and are very gay. The Snow-drop is one of the first; this pretty little flower is too well known to need any description from me. There is also the Winter Aconite, a bright yellow flower in the form of a buttercup, and which does not exceed two inches in height, and is very gay and showy. There are likewise all the varieties of the Crocus. Nor must I forget to mention the Hepatica, which is the prettiest of all the small flowers which bloom at this time, amongst them are several varieties; blue, pink and white, with a double and single variety of each colour: when in full bloom they are very showy especially when combined with the Crocus and other flowers of the season. They are quite hardy, and flower as well in town as the country; they will scarcely require any water during the time they are in bloom.

Verbena, or as it is now called *Aloysia citriodora*, but which is more generally known by the name of the Lemon plant, may be procured at this early season; but the leaves are extremely delicate, and must be kept close, as four or five minutes' exposure to the air would destroy the whole of them, having been forced into leaf so much before its natural time, for the sake of the beautiful scent which is emitted from it when touched. It is certainly a delightful little plant, and ought not to be absent from any room. It will require very little water each day, as, from the weakness of its leaves, it is not able to bear much, and should be placed in the warmest part of the room, where it will thrive very well, until about April, when it may occasionally be placed outside the window to receive the fresh air, but must not remain outside during the night until the middle of June. Indeed I should recommend keeping it in the room all night during the whole of the summer, as it preserves the scent much better as well as keeps a fine green to the leaf. The leaves of this plant, when picked off and carefully dried, will retain their beautiful odour for several years after, if put in thin paper or a small silk bag, to keep the air from them.

Lechenaultia formosa.—This beautiful little plant, in its appearance, is very similar to the Erica, and like those plants require to be grown in bog or peat earth. It is also remarkable for the great length of time it continues flowering, commencing early in February, and can scarcely be said to have finished its bloom the November following. In its growth it never attains a very great size, and is particularly adapted for small fancy vases, as it does not require a large pot, indeed it flourishes much better when grown in small-sized pots, and has a bright blood-coloured flower, but when confined in a room it is almost sure to change to a bright orange, but by being exposed to the air it very soon regains its former colour; it is not so difficult to keep as the Erica, but like them should never be allowed to get quite dry, but always be kept moist, at the same time not to be saturated with water. It is very hardy, and will bear to be exposed to the air during the

day time when the weather is not very frosty, and after the month of May can be kept out of doors both day and night.

Kennedya monophylla.—This is a very pretty little climbing plant, and for the room is very desirable, attaining about one foot and a half in height, and has a pretty bright purple flower, which blooms in bunches of about two inches in length; and even when the flower is off, the leaf still makes it a desirable plant. There is another species, *K. lilicina*, which has a pale lilac-coloured flower, and has the same kind of habit and growth as the other. These two varieties, when planted together in the same pot or vase, are very pretty, as, from their climbing habit, they twine one with the other, intermixing their flowers all over the plants; they should receive a very little water every day until about May, when they may be watered more plentifully; great care must be taken that it does not receive too much water, as the leaves will otherwise turn yellow, which immediately spoils the beauty of the plant.

The Little English Flora, or a Botanical and popular account of all our Field flowers, with Engravings on Steel of every description. By G. W. FRANCIS, Author of the Analysis of British Ferns.

Three years ago we were informed by Mr. Francis of his intention to publish a work on British plants, and the small pocket volume, of 174 pages, now before us, is the result. In the preface we are told that, the object of the Author in preparing this little volume, "is, first to invite the young to an examination of the flowers of the field," by pointing out the beauties they are every where to meet with, that thus additional charms may be added to their rambles over the meads and commons; secondly to induce a love for the science itself, by shewing that it is easy of acquirement, and that it yields instruction and delight, not merely in our after progress, but even from our first commencement of its study;"—and, he adds, "these important purposes I have endeavoured to accomplish, by giving a plain and popular description of all our common wild plants accompanying these with accurate steel engravings of every species: thus striving to win rather than demand the attention, and to present these little favourites in the alluring garb with which nature has herself invested them, rather than the mysterious and repulsive habit in which they are too often described, and to smooth as much as possible the study of Botany.

Mr. Francis is well and advantageously known to the public, as the author of an Analysis of British Ferns, a work which every cryptogamic botanist ought to possess. The 'Little English Flora' is cast from a similar model, but, in point of real usefulness, it will bear no comparison with the work before alluded to. The engravings are too small to afford much assistance in identifying the species. This will be readily understood, when it is known that there are twenty engravings on each page, the size of which is only six inches by three. By this arrangement, the volume is small, and, we have no doubt, cheap. On this ground it can be recommended; the 'Little English Flora' will be found of great assistance, more especially on account of the popular and pleasing style in which it is got up.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

1. MATTHIOLA ODORATISSIMA. Sweetest Evening Stock.

(Bot. Reg. 25.)

CRUCIFERA. TETRADYNAMIA SELEGUOSA. SYNONYM. CHEIRANTHUS
ODORATISSIMUS.

Introduced to this country some years back, but is rarely to be met with. We lately saw it in fine bloom, which has a pretty appearance, the flowers are of a pale purple with yellow centre, they are most delightfully fragrant towards evening, much more so than the well known *Cheiranthus tristis*. The present species is a half hardy biennial, and does well either in the greenhouse or open border during summer. It seeds freely and is readily cultivated.

2. LÆLIA AUTUMNALIS. The Autumnal Lælia.

(Bot. Reg. 27.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of Mexico, and now found in many collections of Orchidæ in this country, and it certainly merits a place in every one. The plant is of easy culture; it requires to be tied to a piece of wood, and as soon as fresh roots begin to push it is freely syringed, even two or three times a day till the growing season is over, when it is removed to a cooler temperature, and kept dry through the winter, after which, it is taken to a higher temperature and treated as above. The flowers are of a beautiful mixture of bright rose, crimson, and purple, with the labellum towards its base, white, spotted and streaked with dark brownish crimson; each flower is near four inches across, produced numerously, and very fragrant.

3. TRICHINIUM ALOPECUROIDEM. Foxtail Trichinium.

(Bot. Reg. 28.)

AMARANTHACEÆ. MONODELPHIA PENTANDRIA.

This singular looking plant was introduced into this country by Captain Mangles, R. N., from the Swan River Colony. It has bloomed in the collection of that gentleman's brother, R. Mangles, Esq., Sunning Hill, Berkshire; it is a half hardy annual flowering abundantly in the open border during summer; flowers are produced in spikes, green, tinged with rosy pink of a glossy appearance like the cockscomb; the flowers seem to protrude themselves out of a dense mass of fine hairs, like those of the feather grass, though not very showy, the flowers are very interesting. Dr. Lindley has stated that two other species are known to exist at Swan River, specimens having been given to the Doctor by Captain Mangles.

1. *Tr. Manglesii*. Flowers, pink at the tips, silvery at the base.
2. *Tr. Stirlinghii*; silvery, just tinged with pink.

4. SALVIA CONFERTIFLORA. Close flowered Sage.

(Bot. Reg. 29.)

LABIATEÆ. DECANDRIA MONOGYNIA.

Discovered by Mr. Macrae, near Rio Janeiro, Brazil. It is like others of this family, thriving well either in the greenhouse, conservatory, or open

border ; the flowers are produced in spikes of six or eight inches long. they are of a deep orange colour, having a purplish red calyx, the contrast of which is very pretty, each blossom is about half an inch long ; the plant blooms very freely, and the blossoms being of a bright colour produce a pretty effect. It has bloomed in the collection of J. D. Llewellyn, Esq.

5. *RUELLIA CILIATIFLORA*. Fringe flowered Ruellia. (Bot. Mag.

ACANTHACEÆ. DIDYNAMIA ANGIOSPERMIA.

This is rather an ornamental stove plant, with oblong serrated foliage, and flowers produced upon a short pannicle, which are of a purple colour, having five cordate petals, and a spreading disk. It was sent home by Mr. Tweedie, and is supposed to be a native of the interior of Mexico.

6. *PIMELEA HENDERSONI*. Mr. Henderson's Pimelea. (Bot. Reg.

THYMELEÆ DIANDRIA MONOGYNIA.

Is a very pretty plant, intermediate between *P. decussata* and *P. roseæ*. It is a native of King George's Sound, and was raised from seeds received from thence by Messrs. Eagle and Henderson. This is said to be one of the most ornamental of the genus ; and judging from the plate, we are fully inclined to fall in with this opinion. The colour of the flowers is a light rose. The branches are very thickly set with leaves.

7. *BRASSAVOLA CUSPIDATA*. Spear-lipped Brassavola. (Bot. Reg.

ORCHIDEEÆ. GYNANDRIA MONANDRIA.

This is a native of Trinidad, imported from thence by John Moss, Esq., of Otterspool, Liverpool. We are here told, that owing to the skill of this gentleman's gardener, and the extensive connexions which Mr. Moss, possesses abroad, his collection at Otterspool bids fair to rival some of the many collections of orchidaceous plants, of which the country may well be proud. Five species of this genus have already been described by Professor Lindley, of which the one now under consideration is the sixth, and nearly related to *B. cucullata*.

To those unacquainted with the genus as well as the species referred to, it may be well to say that the *B. cuspidata* has long ridged rush-like foliage, bearing a few scattered white flowers.

8. *DENDROBIUM FORMOSUM*. Beautiful Dendrobium. (Pax. Mag.

ORCHIDEEÆ. GYNANDRIA MONANDRIA.

Amongst the genera of orchidaceous Epiphytes none contains a greater number of really beautiful species than *Dendrobium*, of which we think it quite just to the genus to say, the species now before us is decidedly the most ornamental. The foliage is scanty, being only a pair or so on the summit of a rather tall fleshy stem. The flowers are very large, and nearly white. We are told that this handsome plant was discovered in a district called Pondooah, at the base of the Khoseea Hills, by Mr. J. Gibson, collector to his Grace the Duke of Devonshire, and under whose care it produced its handsome flowers at Chatsworth, during the spring of 1838. Some excellent directions are here given on the cultivation of this genus, the most important of which are those which refer to a season of rest or the suspension of moisture, but not of heat. In their native localities they bloom in the dry season. This period should commence about the beginning of our winter, and continue for one or two months. During this time the foliage will wither, and not unfrequently drop off, but, at the end of this period, moisture should again be freely supplied, when the flowers and foliage will be most luxuriant.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON DRY ROT, &c.—I should feel much obliged to you, or any of your correspondents, for their opinion on 'Mr. Kyanse's Supplement, for the preservation of timber from Dry Rot.' And whether there would be any danger in introducing some trellising into a greenhouse, and likewise the new roofing of a large grape-house. The vines are to be trained under the rafters: both rafters and trellising have been laying in the tank some time, and are now ready for use: I understand it is a deadly poison! Should not the wood be well drained and painted before it is put upon the house? Would not the air in the house be impregnated, so as to be injurious when closely shut up? An early answer to the above by some reader acquainted with the subject, will much oblige

April 17th, 1839.

A CONSTANT READER.

A LIST OF PANSEYS.—Will you, or some reader of your Magazine, be so kind as to give me a list of the best prize Panseys, also the probable price, and where they may be obtained.

April 8th, 1839.

R. R. DAVIS.

ANSWER.

A LIST OF PANSEYS.—Having recently visited many of the first rate collections in the country, and around London, to furnish ourselves with a stock of the best, the following are the kinds we selected as the most superb. viz., Venosa, Cream superba, Mrs. Adams, Climax, Formosa, Solomon, Mrs. Praed, Lord Glamis's Enterprize, Enchantress, Thompson's Victoria, King, Gem, Hecuba, Jem Crow, King's Cupid, Corrine, Morton's Julia, Esther, Mulberry, Gold Sovereign, Unique, Minerva superba, Duke of Marlborough, Shakespear, Milton, Mountjoy's Victoria, Thompson's Vesta, Beauty of Somerset, Incomparable superba, Thompson's Naxará, T. Vivid, Regina, Fanny, Senecio, Emperor, Duke of Wellington, Mogul, Coronation, Fair Helen, Chimpanzee, Duke of Northumberland, Iver Hero, Ne plus Ultra.—

CONDUCTOR.

REMARKS.

ON RAISING NATIVE HYACINTHS.—The plants which have flowered in glasses or pots produce better offsets than those raised in beds; these together with the mother and now reduced bulb, plant at the usual season. The old bulb affords considerable nourishment to the young plants, which rise with great strength the following spring. When the leaves assume a yellow hue the plants are to be taken up, and replanted the same day in prepared beds; the stronger by themselves. The strongest plants will show blossoms the following spring, some of them having from twelve to twenty bells, or pips; these should be reduced to three or four, which should be left on the extremity to draw up the sap. Were the whole suffered to remain, the plant would be much exhausted in flowering; and if wholly taken

off, it receives a great check. The bulbs are again to be taken up in October, and replanted as before, not permitting them to remain any time out of the ground. Moisture seems essential to the perfection of the Hyacinth; and it is those which remain in the ground, and of course subject to its influence, that are not at any time affected with the ring disease, by which many of which are placed in the stove are lost every season.

The compost best suited for them is, one barrowful of loam from rocky places, one ditto well rotted cow-dung. This should, if possible, be three years old; one third of a barrowful of mould, produced from rotted tree-leaves, and about a fifth of a barrow from an old cucumber-bed. With this the bed is to be made two and a half feet deep, and the surface covered with turf mould, to preserve the bulbs from frost.

New Plants.

TROPEOLUM TRICOLORUM.—We have recently seen several fine specimens of this most lovely climber, which is certainly unequalled for beauty and neatness. At the exhibition of the London Horticultural Society, held on the 18th, inst., there were several plants in most profuse bloom, and trained variously, which produced a fine effect; one was trained to cover a circular wire frame about four feet in diameter, covering it with bloom in every part; a second, a wire frame about four feet high in the form of an urn, and in addition to the frame being covered down to the pot, the framing was so constructed as to inclose the pot, and the flowers concealed it from view; a third, was trained over a frame constructed globular, about three feet in diameter, and its surface entirely covered with bloom; a fourth, trained up to a centre, having a turban headed from three feet across, and in addition to the head being covered, the shoots hung pendant in beautiful bloom.

In these and other similar modes the plants were trained, and being in a high degree of cultivation, blooming profusely, were justly admired. When the bulb once becomes strong, the plant is found to be of easy culture; the shoots being spread around the plant upon some finely sifted soil, just covering them over, and gently pressing them down, they will then speedily take root. This is a very ready method of increasing it, and will doubtless, on becoming generally known, allow the introduction of several plants into every greenhouse and conservatory. The soil in which the *Tropeolum* appears to thrive best, is a sandy loam being well drained, care should always be taken, as have been observed by writers in former numbers of the Cabinet, not to place the tuber more than one-half its depth in the soil; we find too that the plant can be easily cultivated in a light sitting room. The kind we saw in 1836 flourishing in the valuable collection of C. Rawson, Esq., Hope House, Halifax, under the very successful management of our friend Mr. Menzies, is the most handsome of the tribe, we gave a figure of it at the time, (August), and seeing a plant of it in bloom, at the above mentioned exhibition, in contrast with the true *T. tricolorum*, we were struck with its decided superiority, the flowers being much larger and of finer colours. The kind was named at Mr. Rawson's, *T. elegans*, and is justly entitled to such appellation. We have seen it named in one collection, *T. tricolorum* major.

TROPEOLUM BRACHYCEROS is better cultivated this year than we have seen it before, trained, and otherwise treated as *T. tricolorum*, it produces a pretty contrast with it. Its yellow, delicately dark marked flowers being neat and pretty.

TROPEOLUM TUBEROSUM is now progressing fast, plants are fine for turning out; they will no doubt amply repay by their beauty at the end of summer and autumn. The plant is very easy of propagation by cuttings, and one plant will produce near a peck of tubers. It is found to throw the plant early into bloom, cut a small trench with a spade around the plants, about two feet from its base, and fill up the trench with sand, this checks its

luxuriance and causes it to bloom immediately. The beauty, and ease of culture of *T. pentaphyllum* is too well known to require any commendation.—
CONDUCTOR.

HOVEA PUNGENS.—This beautiful plant is of a dwarf habit, with narrow leaves, resembling the Rosemary. The flowers are of the most intense blue. It is a native of the Swan River, and was raised by Robert Mangles, Esq. This is a very desirable plant to those who have a small greenhouse.

REFERENCE TO PLATE.

GARTH'S JOAN OF ARC. *Pelargonium.* This most superb kind we saw in bloom in the fine collection of Mr. Cattleugh, and it is certainly the best flower among the vast variety of fine kinds we have seen during a visit to every collection of note; no drawing can do justice to its beauties and excellence. The following kinds are among the best we have seen, and merits a place in every collection.

CHORIZEMA VARIA. This new and very fine species was recently exhibited at the London Horticultural Societies' Room in Regent Street, and at the exhibition on the 18th, inst., at the Societies' garden. Mr. Hally of Blackheath, exhibited a plant finely in bloom at the former place; and Mr. Veitch, of Exeter, at the latter; Mr. Veitch's plant was about seven feet high, furnished from the bottom to the top with numerous spreading branches, and central shoots, each terminating with a spike of flowers. The plant is of very rapid growth, easy of cultivation, and a most profuse bloomer. The flowers are produced closely on the spikes, and thus make a show, and in this particular, very much exceed some other kinds of *Chorizemas*, whose flowers being so remote from each other, give but little effect. This very superior kind which deserves a place in every greenhouse and conservatory; in the latter, it appears as if it would become a magnificent tree, and if duly encouraged when grown in a pot, an object of considerable attention. Dr. Lindley noticed at the meeting, that it was one of the most valuable acquisitions of this class of plants, which had been introduced for some time.

GLADIOLUS RAMOSUS. This very beautiful species we saw in bloom in the fine collection of Mr. Groom, of Walworth; when we saw it in bloom last summer, it was offered at three guineas per plant, but may now be obtained for fifteen shillings. It is of vigorous habit, and blooms most profusely in the open border, when grown among others of its beautiful family its contrast is very striking.

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 attention 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. I. and II., of the Cabinet.

CAMELIAS—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 be repotted and placed in a shady, but airy, situation. Transplant seedlings, also of Polyantheses.

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.

CAMELIAS—If the new shoots have nearly done growing, place the plants in a warm greenhouse, or in a stove of 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.

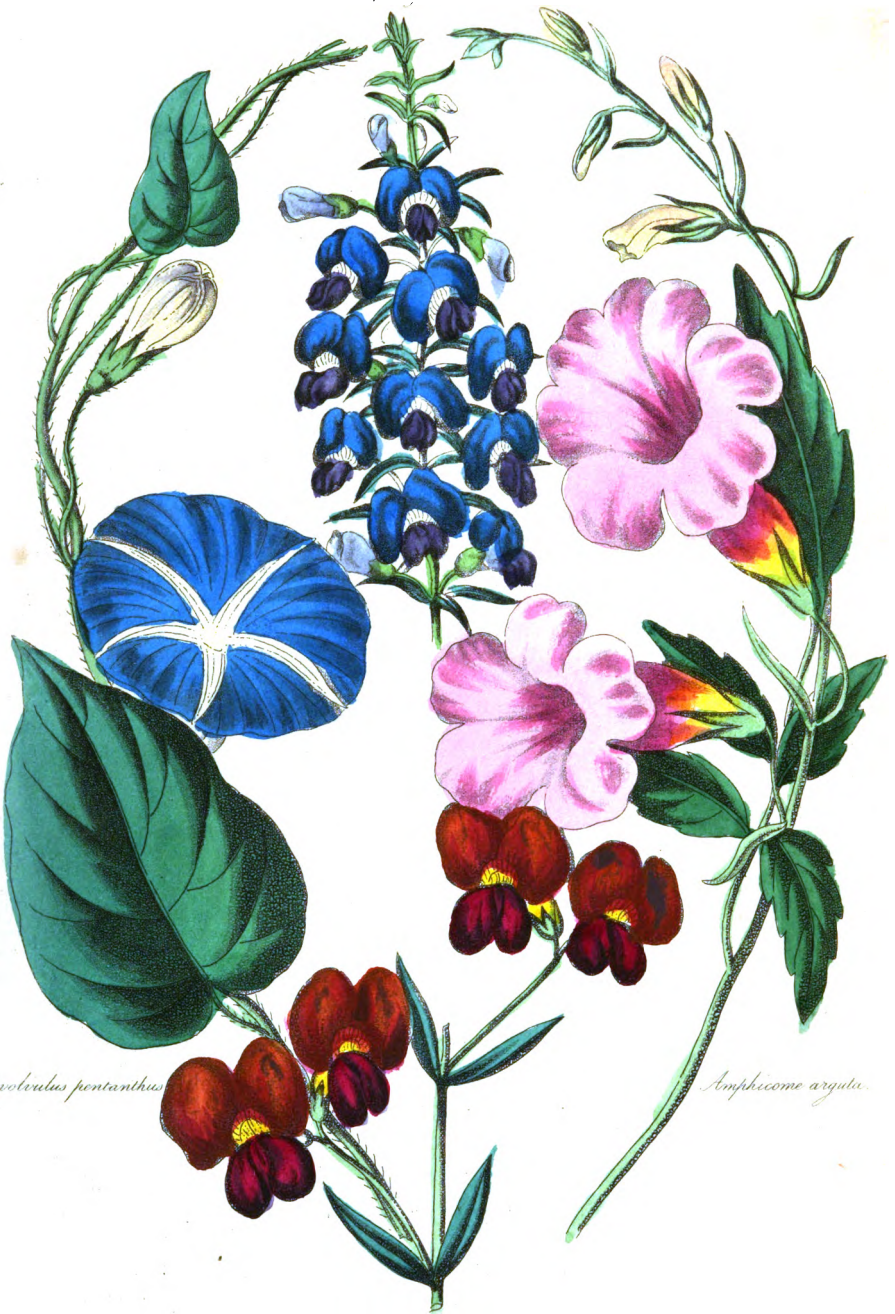
TRIVERANIANIANS. See Vol. I.

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 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.

C. 1 July 1907

Horca pungenis



Convolvulus pentanthus

Amphicome arguta

*Chorizema
rusyfolia*

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Rhododendron Californicum.

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THE FLORICULTURAL CABINET,

JULY 1st, 1839.

PART I. ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE MANAGEMENT OF HOT HOUSE PLANTS

BY A PRACTICAL GARDENER.

THE house intended for the growth of stove or tropical plants, should be constructed so as to give a proper command of artificial heat in the winter season, when a high temperature is requisite for the preservation of the plants. These, being natives of warm climates, require a strong degree of heat, to induce them to grow and flourish in the confined apartments that are allotted for their cultivation.

The thermometer ought to be regulated, mornings and evenings, in this department, from 60 to 70 degrees : otherwise, the cold cutting winds that generally pass between the laps of the panes of glass, will prove very injurious to the tender shoots and foliage of many of these exotics. When the atmosphere of the stove increases to 70 degrees by the influence of sun heat, a little air should be admitted in the middle of the day, but taken away again early in the afternoon, so as the house may be shut up warm from the effects of the sun, which is more advisable than having recourse to strong fires for the purpose ; and as the use of the bark bed is now becoming very generally exploded, for the cultivation of tropical plants, a higher degree of temperature is necessary for the health and preservation of these ; but, as many of the tender exotics will succeed better by having a slight degree of bottom heat at their roots, this may be successfully supplied to them, by filling the bed, or pit, with fresh tree leaves, or tan,

every autumn, and covering the surface over with sand or coal ashes, for the pots to stand upon; when these should be arranged according to their different sizes, without plunging, as the heat arising from the fermenting substances will increase the temperature of the house, and produce a mild congenial heat to the roots of the plants, which will greatly facilitate the growth of the more tender species. The pots remaining unplunged on the bark bed, will not be so subject to have their roots injured with worms, which is always the case when plunged in the bed, and which are very pernicious to the young roots. During the winter months, when there is but little sun to dry up the moisture, great care must be taken not to give any of the plants too much water; it is preferable to give them little, and frequently, as they may appear to require it, than to deluge the pots with too much moisture, in their quiescent state. When the flues or hot water pipes are pretty warm, the pouring of water upon them will produce a fine steam, very beneficial to the plants, and also obnoxious to the insects, whose depredations should always be kept in subjection. When the Aphis, or green fly infests the young shoots, recourse must be had to fumigation with leaf tobacco, or be plunged over head in a solution of tobacco water. The advantage of a mild or rather calm evening, should be taken, and the houses well filled with the fumigating bellows, which will instantly destroy these noxious depredators. The plants will require to be well syringed the following morning, in order to displace any of the fly that may cling to the foliage; and if they do not appear all to be destroyed, a repetition of fumigation should be resorted to the ensuing evening, which will effectually clear the plants of these insects. When the weather is at all favourable, the syringe should be frequently applied in the evening, and the house shut up warm; this moist heat will, in general, keep the red spider under, especially in the early part of the season; but if this intruder begins to get a head, a little sulphur sprinkled over the hot pipes, or flues, will keep them in abeyance. The white mealy bug and scale are more difficult agents to get rid of, and require to be brushed off as soon as they begin to appear, otherwise they will become very troublesome. Frequent fumigations of tobacco will, also, considerably check their progress.

The soil that appears most appropriate for the growth of the greater portion of stove plants, is sandy loam, consisting of the

sward from a pasture, which should be thrown into heap, to decompose and pulverise for a short time previous to using; to which a portion of peat soil, mixed with it, will be a suitable compost for the growth of most tropical plants. When there is a scarcity of peat, a mixture of decomposed tree-leaves may be applied in its stead, with great advantage. Should the soil not be of a naturally sandy quality, a little sand should be intermixed, so as to render it light, and free for the roots to run in.

The plants should all be examined in March, or April; and such as appear to be in want of fresh pots, should be shifted into others, a size larger; but the operation of shifting, and size of the pots should be regulated according to the state of the plants. The more luxuriantly inclined species will require a larger supply of nourishment than those of less delicate habit, and may, therefore, be admitted into larger sized pots without injury, whilst the more delicate growing sorts must not be over-potted; rather repeat this operation, as the roots appear to fill the pots, than put them into too large sized pots at once. The pots that are used for this purpose must be well drained with small pieces of potsherds, or any other material that will permit a free passage for the superfluous moisture. There should be placed next to the drainage a little of the rough fibrous substance that is collected from the soil, which will admit of a ready penetration of the water through it, and prevent the mould in the pots becoming too much saturated with wet; as nothing is more injurious to the tender roots than to have the soil soured about them when in a dormant state. During the course of the season, they will require to be frequently examined; and such as appear to have out-grown their pots, to be removed into larger ones; as, also, any that are in an unhealthy state should be shook out of the pot, and the roots examined; and such as appear in a decayed state, cut away, and the plant fresh potted; but observing in these instances, to use rather small pots than large ones. In Autumn the whole stock should be carefully looked over; and those that appear too much confined, for want of pot room, may be re-potted into larger sized ones; care, however, should be taken not to disturb or injure the roots at this advanced season. During the Summer months, and growing season, they should be well supplied with water, and frequently syringed over their foliage, and the borders and footpaths, &c kept in a moist state, particularly in hot weather, which will be very conducive to the health and

vigour of the plant. The atmosphere of the house will require to be duly attended to, and the thermometer regulated mornings and evenings, at 65 degrees, which may be allowed to vary from 90 to 100 degrees, by the influence of sun heat.

Most sorts of tropical plants are increased, either by cuttings, seeds, or dividing at the root, whence offsets of the *Orchidææ* and *Cryptogamia* genus are procured; and when those throw out such suckers, or side offsets, we have a plant supplied with roots immediately, which may be, at once, potted, and treated accordingly. I may, however, observe, that these suckers, or offsets, should be allowed to form good roots before they are taken from the mother plant, which will the better secure their future success. The hard woody kinds may be propagated by cuttings, which will root freely in most instances, when planted in a sharp sand, and placed in a shaded situation of the stove, or in any other apartment where they can be shaded from the effects of the mid-day sun; as a small pit or frame is generally appropriated for this purpose, which can readily be shaded by throwing a mat over the lights while the cuttings are striking root: some of the species will require a slight degree of bottom heat, to induce them to throw out young roots. The most suitable season for the propagating of tropical plants, is from January to July; but many of the kinds may be put into the cutting pots at any period of the year, providing that the young shoots are in a proper state, as some species require the wood to be ripened and firm before they are put in; whilst others may be increased when the shoots have grown only sufficiently long for the cutting. In stripping the foliage from the shoot, care must be taken not to injure the bark, and not to clear away more of the leaves than are necessary for the insertion of the lower end of the cutting in the soil or sand in the pot, where they are all inserted; a gentle watering should be given, to settle the soil about them and the pots then covered with hand-glasses until the cuttings begin to grow, and throw out young roots, when a little air may be given, to prevent their being drawn up in a weak state. The sand, or mould, in which they are planted, must not be saturated too much with water, otherwise it will rot the cuttings.

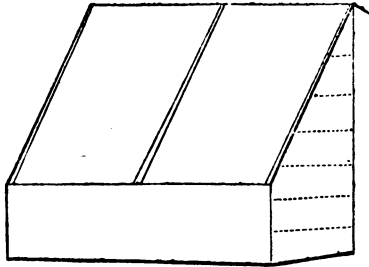
When the plants have struck root, they should be immediately potted off in small sized pots, and placed in a slight hot-bed for a few days, and kept shaded from the effects of the mid-day sun until they have got a little established, when they may be removed with safety to the stove.

ARTICLE II.

ON FLORIST FLOWERS—THE AURICULA.

BY FLORA.

IN my last paper, having promised you the routine of my monthly culture of the Auricula, I therefore, to redeem my pledge, send this, with a sketch of my Auricula-house or frame, the dotted lines shewing where the laths on which the sliding shelves lay.



I shall begin my Auricula-year with *August*, that being the month in which the general potting takes place for spring bloom.

Early in the month, or the last week in July, prepare the soil as before stated, prepare also some thin sod or sward, and having taken care that it is half dry, take an empty pot, and cover the hole in the bottom with a piece of shell or potsherd, lay a piece of this half dry sod upon it, and then your prepared soil, till the pot is about half full, take the old plant and shake the soil from it, taking off all rooted offsets which must be put either singly into small pots or four plants into a larger pot, pull off all the dead or yellow leaves, and examine the root to see if any part be decayed, if so, remove all the decayed or brown roots, for the plant will never thrive when the root is diseased. If you cut or break it, let it be till the wound is healed, or pot in dry soil, and do not water for a day or two; spread the roots of the plant all around the soil, and fill up to the top level with the edge, do not press it down with your fingers, but give it a slight knock or two on the bench, which will settle it about half an inch and leave room for holding water. Look to the neck of the plant all round, that it is a proper depth in the soil, then water gently about the edge

and place the plants in a shaded situation. If the weather is dry and hot, they will require a little water every evening round the pot edge; a shower of rain at this season will not hurt them, only do not let them have too much, for it not only washes away the nutritious part of the soil, but also does the plant harm by giving it an inclination to rot, by the wet lodging too long about the neck. If it is very sunny, shade the frame with mats during the day, and having the back doors taken quite away at this season, prop the edges of the front sashes up, so that air may be circulated freely through the whole both day and night.

September.—No more is required this month than examining the plants frequently to see that they are free from the green fly, caterpillars, &c. and in a sound healthy state, if the green fly should infest them, this is easily cured by closing the frame and fumigating with tobacco smoke, water frequently round the edge of the pot, and the plant will grow freely and strong.

If a plant looks yellow or sickly, be sure that all is not right with it, lose no time in taking it out of the pot and wash it clean, if any brown or decayed place appears, take it quite out with your finger nail, or a piece of wood, but do not cut it with a knife, let it lay out of the soil till dry, and then repot it in dry soil, use a plaster of bees wax or tallow over the wound to keep the damp from it, but if possible, keep the wound quite out of the soil; keep it dry for a week or more, till it begins to recover, water with great caution till it show signs of growing, then set it in its place.

October.—Less water must now be given as the plants cease from growing, and must be regularly prepared for the winter, that is, they must be furnished with less sap, and of course they will become less succulent and less susceptible of frost or damp, they must have all the air possible by the sashes still remaining propped, and the door off during fine weather.

November.—This is often a fatal month for the Auricula, the damp stagnated state of the air, together with cold, and want of a proper elevation of the plants above the wet surface of the ground, are felt most severely, but if they have been regularly prepared last month by being kept dryer than before, they will bear it very well; very little water is now required, keep them entirely from rain, but give as much air as possible, examine the plants frequently as to their soundness, &c.

December.—No water must now be given except the plants turn soft for want of it, and then very little will suffice; pick off such yellow or dry leaves as can be removed without making a wound, but do not force them off, which would probably make a wound, and the neck be injured, and prove fatal; at this season of the year keep your frame closer, as frost and snow, may now be expected.

January.—This month must begin as December ends, by keeping all close in frosty or coarse weather, but give air every fine or fair day, give very little water, if any, keep all as clean and dry as you can about the plants.

February.—The heart of the plants will now begin to look of a fresher green, and the leaves to give evidence of a renewal of life, they must have a little water to assist nature in her process of forming the embryo flowers, about the second or third week, according to the season, take off all the surface soil from the pot without disturbing the fibres, and put some fine rich soil on them; now is a good time for removing any rooted offsets, give water once a week, but do not be too eager in setting them to grow too soon, for if a severe fit of weather should come, your succulent plants might be in danger, give all the sun and air you can and cover with mats at night.

ARTICLE III.

ON THE TREATMENT OF MIMULUS' IN POTS.

BY W. M. P.

ABOUT the beginning of March I take off cuttings from my various selected varieties, which I plant singly into 60's, using a compost of two-thirds loam and the other third leaf and sand, merely to keep the soil a little open, I then plunge them into a bottom heat, and when they are rooted I take them out and place them on the front shelves in the greenhouse; when the roots fill the pots they will require to be shifted into 48's, using the above compost with an addition of rotten cow-dung. When I finally shift them, which is generally about the latter end of June, I put them into as shallow pots as I can procure, from sixteen to eighteen inches in diameter, as the roots always incline to run on the surface, which ought to be pegged down and tied up neatly to stakes as they grow. I allow them abundance of water as they

come into flower, (I have seen pans filled with water put under them, but it is very injurious, as it sours the soil,) for if neglected the flowers will be small.

When they are done flowering, I give them less water, until I withhold it altogether, I then cut them down to the surface, and put them aside in any back part of the greenhouse until they begin to push in the spring, when I take them out and place them on the front shelves in the greenhouse, giving them a good watering, when, in the course of a few days they will begin to shew their young shoots.

If you think the above remarks are worthy a place in your useful Publication, they are at your disposal.

W. M. P.

Uffington Gardens, May 1839.

ARTICLE IV.

REMARKS ON THE CYPRESS.

BY AN HORTICULTURIST.

THIS tree, which is the symbol of eternal sorrow in all the civilized countries of Europe, is also the funeral tree of the east, from the Persian Gulf to the Caspian Sea; and it is likewise dedicated to the dead from Mazenderán to Constantinople, as well as to the utmost bounds of China's fruitful shores.

Claudian tells us, in his admirable poem of the Rape of Proserpine, that when Ceres decided to travel over the earth in search of her daughter, she hastened to Etna, to prepare the torch which was to light her on the road during the night; and that having rooted up two gigantic cypresses, the goddess threw them into the crater of that mount, which being inflamed by the sulphur, augmented the fires of Etna; and from thence the ancients, we presume, dedicated this tree to Pluto and Proserpine. The Romans placed a branch of the cypress tree before their dwellings when any one died, which remained as long as the corpse was in the house; and which it then accompanied to the funeral pile, or the tomb.

Lucan, who wrote about the middle of the first century, informs us that the cypress was then only used at the funerals of persons of distinction.

The Turks of the present day attend most religiously to the planting of the cypress tree at the tomb of their departed friends and relatives; and they are always careful to select the upright variety, as the spreading cypress would, in such situations, be the cause of much sorrow to them, from their belief that when the tree grows with a spiral point towards heaven, it indicates that the soul of their friend is ascended into the regions of bliss. The Armenians are not allowed to plant a cypress tree, at the graves of their deceased friends, but they are permitted to plant any branching tree, as the apple, oak, or elm, &c.; which, from its crooked branches, indicates, as the Mahomedans affirm, the impossibility of the ascension of Christian souls. When will reason ascend her universal throne!

Lady M. W. Montague mentions a cypress tree in a garden at Kujuk Checkmedji, that was converted to rather a singular use, "The house and garden now belong," says her Lady-ship, "to a hogia, or schoolmaster, who teaches boys here. I asked him to show me his own apartment, and was surprised to see him point to a tall cypress tree in his garden, on the top of which was a place for a bed for himself, and a little lower one for his wife and two children, who slept there every night. I was so much diverted with the fancy," says Lady Mary, "that I resolved to examine his nest nearer; but going up fifty steps, I found I had still fifty to go up, and then I must climb from branch to branch with some hazard of my neck. I thought it therefore the best way to come down again."

Cato wrote more on the cultivation of the cypress than on that of any other tree; and he calls it a Tarentine tree; but Pliny says, that was from its being first planted in that neighbourhood, and that the isle of Candia is its natural country; where, he says, when the ground is ploughed up, the young plants are sure to appear, and that in many parts of that island, the cypress trees spring up without culture; particularly on Mount Ida, on which they grow to the very point, although it is continually covered with snow. Hanway says, some of the mountains near Reshd, in Persia, are covered with cypress trees. Thus, like the cedar, its birth-place is a cold bleak mountain; and like that majestic tree, it lives almost to eternity, and its timber seems nearly imperishable. Sir W. Ousley tells us, in his travels, that "the beautiful and venerable cypress of Fassa has been the boast and ornament of that city for above a thousand years." Pliny speaks of a cypress that was

planted when the foundation of Rome was laid, and which fell, he says, through careless neglect, on the last year of Nero's reign. The same author tells us, the famous statue of Vejovis, Jupiter, in the capitol, was made of cypress wood; and that when he wrote it was perfectly sound, although it had been dedicated and consecrated to the temple since the second year of the foundation of Rome. Theophrastus, who calls this tree *Kupariton*, tells us, that the doors of the celebrated temple of Ephesus were formed of this durable wood; and the doors of St. Peter's church, at Rome, were framed of cypress timber, which lasted from Constantine, to Pope Eugenius IV.'s time, which was eleven hundred years, and were then sound and entire, when the pope took them down to change them for bronze gates. The Egyptians kept their mummies in chests of cypress wood; and Thucydides, a Greek historian who wrote about 400 years before the birth of Christ, tells that the Athenians used to bury their heroes in coffins formed of this timber; and Aristocles, the celebrated Athenian philosopher, (who was called Plato, from the largeness of his shoulders), and who flourished about the same time with Thucydides, would have the laws and sacred rites inscribed on tablets of cypress wood in preference to brass.

The Babylonian history affirms, that the lasting bridge, which Semiramis caused to be built over the Euphrates, about 1960 before the Christian era, was entirely formed of this timber; and some learned writers, who do not hesitate to go 389 years farther back, endeavour to prove, that the gopher mentioned in Scripture as the wood of which the ark was built, was no other than cypress, and which is not confuted by other learned authors; such as Isa, Vossius, and David Kinchi, who will have gopher to signify only resinous timber. Epiphanius, a bishop of Salamis, who died A. D. 403, tells us, some relics of the ark, lasted even to his days: and which was judged to have been of cypress. It is known, that at Crete this timber was employed in building the largest ships; and Virgil tells us, "that cypress provides for keels of ships that scour the watery plains." Aristobulus affirms, that the Assyrians made shipping of this timber; and so plentiful was this tree about those parts of Assyria, where the ark is conjectured to have been built, that those vast armadas which Alexander the Great caused to be equipped and sent out from Babylon, consisted only of cypress.

(To be Continued.)

ARTICLE V.

ON CHINESE GARDENS.

(Continued from page 134.)

FREQUENTLY too, the course of the walk is interrupted by a large oak, or elm, or tulipifera, placed in the middle; or by a screen of trees running quite across; which, when the part on one side of the screen is opened and illuminated by the sun, and the part on the other side close and shaded, produces a pleasing contrast.

I have often seen, in China, berceaux and arbors, not of lattice-work, as in France, but of bamboo, hazel, and elm; whose branches being interwoven at the top, formed an arch not at all displeasing to the eye, and exceedingly useful, during the heats of summer: and to render these cool retreats more agreeable, jessamine scarlet beans, sweet-scented peas, granadillas of several sorts, nasturtiums, the convolvus major, and many other kinds of climbers, were planted round the outside; forcing their way through, enriched the sides and arches of the walks in a very beautiful manner, I have likewise seen, in Chinese plantations, walks bordered with the cut yew and elm hedges, so common in most countries of Europe, which the Chinese Artists sometimes admit of, for variety's sake; but they never have the stiff appearance of our European ones: the shears are used sparingly; towards the top the branches are suffered to spread unmolested; and even in the cut parts of them are seen large masses of other plants forcing their way through; such as the sycamore, the fig, the vine, and others, whose foliage and verdure are most opposite to those of the hedge.

The dimensions both of their straight roads and walks, vary according to the purposes they are designed for; and, in some degree too, according to their length. Roads or avenues to considerable objects, are, as has been observed, generally composed of three parallel walks: that in the middle being from thirty to one hundred and fifty, or even two hundred feet wide; those on the sides, from fifteen to forty. In their Gardens the principal straight walks are never narrower than twenty feet; and seldom broader than forty-five or fifty: and the smallest are at least twelve feet wide. Thirty to thirty-six feet is called a sufficient width for a length of two hundred yards; forty to fifty for one of four hundred; sixty for one of six hundred; and seventy

for a length of eight hundred yards : and when the extent is *more* than this last dimension, they do not tie themselves up to any proportion, but increase their width as much as they conveniently can ; never, however, exceeding one hundred and fifty, to two hundred feet ; which they think the utmost width that can be given without rendering the avenue disproportionate to the trees that border it

In the construction of roads and walks, the Chinese Gardeners are very expert, and very circumspect ; they never situate them at the foot of mountains or rising grounds, without contriving drains to receive the waters descending from the heights, which are afterwards discharged by arched gulleys under the roads, into the plains below ; forming, in the rainy season, a great number of cascades, that increase the beauty of the scenery. The roads which are designed for carriages, they make as level as possible ; giving them a solid bottom, and shaping them so as to throw off the rain-waters expeditiously : they use, as much as possible, the nearest materials, to save expence ; and are very judicious in employing different soils to form mixtures, which never become either hard or slippery ; never loose in dry weather, nor deep in wet ; not easily ground into powder ; nor ever forming a rough flinty surface, difficult and painful for horses to move upon.

Their walks are either of grass, of gravel, or chippings of stone covered with a small quantity of coarse river-sand. The first sort, which are seldom used but in private Gardens, they being too liable to be spoiled in public walks, are made of the finest and cleanest turf that can be found on downs and commons ; and they are kept in order, by frequent mowing, and rolling with large iron rollers. The second sort are made of binding gravel, laid about six inches deep, upon the natural ground : if it be dry, or if swampy, upon brick rubbish, flint stones, or any other hard materials, easiest to be had : and these are also kept firm, and in great beauty, by being frequently rolled. Those of stone are composed of gallets, laid about a foot thick, rammed to a firm consistence, and a regular surface ; upon which is put a sufficient quantity of river-sand, to fill up all the interstices, this done, the whole is moistened, and well rammed again.

Both in their roads and walks, they are very careful to contrive sink-stones, with proper drains and cess-pools for carrying off the waters, after violent rains : and to those that are upon descents,

they never give more fall at the most than half an inch to every foot, to prevent them being damaged by the current of the rain-waters.

As China, even in the northern provinces, is exceedingly hot during summer, much water is employed in their Gardens. In the small ones, where the situation admits, they frequently lay the greatest part of the ground under water, leaving only some islands and rocks; and in their large compositions, every valley has its brook or rivulet, winding round the feet of the hills, and discharging themselves into larger rivers and lakes. Their artists assert, that no Garden, particularly if it be extensive, can be perfect, without that element, distributed in many shapes: saying, that it is refreshing and grateful to the sense, in the seasons when rural scenes are most frequented; that it is a principal source of variety from the diversity of forms and changes of which it is susceptible; and from the different manners in which it may be combined with other objects; that its impressions are numerous, and uncommonly forcible; and that, by various modifications, it enables the artist to strengthen the character of every composition; to encrease the tranquillity of the quiet scene; to give gloom to the melancholy, gaiety to the pleasing, sublimity to the great, and horror to the terrible.

They observe, that the different aquatic sports of rowing, sailing swimming, fishing, hunting and combating, are an inexhaustible fund of amusement; that the birds and fishes, inhabitants of the water, are highly entertaining, especially to naturalists; and that the boats or vessels which appear upon its bosom, sometimes furiously impelled by tempests, at others gently gliding over the smooth surface, form, by their combinations, a thousand momentary varied pictures that animate and embellish every prospect. They compare a clear lake, in a calm sunny day, to a rich piece of painting, upon which the circumambient objects are represented in the highest perfection: and say, it is like an aperture in the world, through which you see another world, another sun, and other skies.

They also remark, that the beauty of vegetable nature depends, in a great degree, upon an abundant supply of water; which, at the same time that it produces variety and contrast in the scenery, enriches the verdure of the lawns, and gives health and vigor to the plantations.

Their lakes are made as large as the ground will admit ; some several miles in circumference : and they are so shaped, that from no single point of view all their terminations can be seen ; so that the spectator is always kept in ignorance of their extent. They intersperse in them many islands ; which serve to give intricacy to the form, to conceal the bounds, and to enrich the scenery.

(To be Continued.)

REVIEW.

The Amateur Florist's Assistant in the selection and cultivation of Popular Annuals ; to which is added a descriptive catalogue of the more interesting tender Perennials used in decorating the Parterre, and a copious list of European Ornamental Alpine Plants.—By GEORGE WILLMOTT, 12mo., p.p. 76.

This is an exceedingly neat little work, and to persons desirous of information on the ornamental flowering annuals, it will be found interesting and useful. The author deserves the thanks and encouragement of the Florist for his efforts ; this will encourage him to give a little more practical information on the culture of some of the kinds treated upon in the present publication.

In the Preface the author observes that “the professional gardener and practical floriculturist are alike cautioned against expecting much more information from the following pages than, it is presumed, they already possess. The intentions of the author are more humble ; but he, fondly trusts, his exertions will not prove the less useful, his principal aim being to convey, in a comprehensive and cheap form, such a portion of that knowledge those already possess, as will enable the villa proprietor, cottager, and small garden occupier, to cultivate for their own recreation the *Popular Annuals*—a tribe of flowers, surpassed by no others in the vegetable kingdom, for fragrance, diversity of form, or beauty and variety of coloring—properties which are enhanced by the facility with which they may be grown, and the speedy return they yield to the careful cultivator ; for while they may be procured for a trifling amount, they at the same time require less attention than their more permanent congenitors ; and instead of waiting seasons, the owner is rewarded for the little requisite at-

tention bestowed on them in a few weeks, a period not only short, but rendered still more so by the pleasure experienced in daily beholding and contemplating their rapid progress, from the time their embryo leaves first appear, to that stage of existence when the profusion and loveliness of their bloom is sufficient to arrest the attention, and call forth the admiration of the most careless observer of nature's beauties.

From those resident in and near large towns, the Annual Flowers have a double claim to attention; for, while they in summer serve to cover the small street-door parterre, and garnish the window-box and flower-pot with the most choice embellishments of the flower-garden, in winter the management necessary for perennials, is dispensed with, which in such localities, is peculiarly unpleasant, and the gloomy association of ideas is avoided, consequent on daily beholding, in the herbaceous tuft of sickly leaves or withered flower-stalks, and the foliage-strip branches of the deciduous, or the smoke-blackened leaves of the evergreen shrub, the decay of what once charmed the eye of the beholder.

In addition to the Annual flowers, strictly so called, "which bloom and die in one short summer's space," there is another class of plants which annually compensate, by the beauty and delicacy of their bloom, the care necessarily bestowed on them by those who have in their gardens a small hot-bed frame or greenhouse, in propagating them in autumn, preserving them through winter, and re-transplanting them in May—again to embellish the flower-beds with borrowed brilliancy of warmer climes and clearer skies. To assist in the selection of these, the author has added a descriptive catalogue of the more interesting Tender Perennials used in decorating the parterre; and in conclusion, he has appended a copious list of the Ornamental European Alpine Plants, the smaller of which may be grown in pots, and protected during winter under glass, in what is usually termed a cold frame; while the taller and more vigorous may be grown in the open flower-border or verge of the shrubbery.

Culture of Annuals. In the course of the work the author has endeavoured to give directions for the culture of such as require any particular mode of treatment; in addition to which he considers the following general observations necessary for the guidance of the less experienced amateur.

The most natural period of sowing Annuals is in the latter end of autumn, when they, as well as most other plants, burst from their capsules, and distribute the seeds in various ways; therefore, those that are natives of this country, or similar climates, may in part be sown at that period, for forming an early bloom in the following summer, to be succeeded by the part reserved for spring sowing, which is the period most usually devoted to that purpose. From the end of February to the beginning of May flower-seeds may be sown, whenever the weather is favourable, and the ground in a proper state for that purpose; reserving the more tender sorts till about the middle of April.

The depth of soil used as covering for the seeds, should, in all cases, be apportioned to their size, for instance, Lupins, Sweet Peas, and similar large seeds, should be buried two or three inches under the surface; while Prince's Feather, Mimulus, Poppy, Tobacco, &c., of which the seeds are very small, should not be covered by more than a small layer of earth. It should further be kept in view, that seeds generally, and in particular those of a small size, vegetate more freely in a light than in a heavy and tenaceous soil; therefore, in cases when the former does not naturally exist, cultivators will find their additional toil amply repaid by procuring and only using light soil for covering the flower seeds.

The manners of sowing vary according to the taste of the operator: the practice formerly adopted, and still often followed by gardeners and others, is to form with the fingers, in the previously prepared ground, a circle from one-half to three feet in diameter, and of the proper depth, in which the seeds were deposited, and the earth again returned; the whole being generally finished by clapping the surface gently with the back of a spade, or pressing the earth lightly with the foot, to assist in keeping out the drought; of course the same practice of forming the reservoir for the seeds may be adopted whether the figure is intended to be a circle, a square, or any other form.

Some fanciful growers form the letters of their name, outlines of animals, &c. in their flower beds, generally choosing for such purpose plants as possess dwarf or compact habit of growth.

The young Annuals, as well as other plants, when coming above ground, are liable to be destroyed by slugs and various insects, as well as injured, particularly the less hardy sorts, by the night frosts; to prevent which, various methods are recommended and practised. In small gardens a very excellent plan is to sow the seeds in circles, not more than six inches in diameter, and inverting a flower-pot; when the young plants appear above ground, the flower-pot should be gently raised on one side by means of a small wedge or stone, which should always be removed in the evening, the operator taking care to lift it to see that no enemies are enclosed. The flower-pot answers the double purpose of protecting the young plants, and of retaining the moisture about them until they acquire sufficient strength to resist all such injuries. Lime water, applied at any time, proves destructive to slugs, but if sprinkled on the leaves during dry weather or hot sun, it will injure them; therefore, that expedient should only be resorted to in the evenings or during damp weather, when they have left their retreats. A sprinkling of quick-lime in the same manner is productive of the same effect, but always produces a disagreeable and unsightly appearance."

(To be continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

HOYA CORIACEA. Thick-leaved Hoya.

(Bot Reg.)

ASCLEPIADACEÆ. PENTANDRIA DIGYNIA.

1. A scarce plant, requiring the temperature of the stove, and to be grown on the trunks of trees. Those of our readers unacquainted with the genus will, perhaps, understand us better by saying, that this is a sort of honey plant, familiar to most persons, with its waxey white flowers, and often grown in windows. The *Hoya coriacea* appears to be a thicker foliaged plant, stronger in its stem, and perhaps less inclined to become a twiner or creeper than the common honey plant.

This new *Hoya* flowered for the first time in this country in the stoves of Messrs. Loddiges, of Hackney. It is a native of Manilla, and was sent home by Mr. Cunningham. Its flowering season is August.

ARISTOLOCHIA HYPERBOREA. Northern Birthwort.

(Pax. Mag.)

ARISTOLOCHIACEÆ. GYNANDRIA HEXANDRIA.

2. This is a curious and beautiful plant, supposed to be a native of the northern district of India. In this country it requires the temperature of the stove. It has been cultivated for some time in the collection of Mr. Knight, of the King's Road, Chelsea, where it flowered during the past year. It is a twiner, running to a considerable length, the foliage, heart-shaped, and the flowers somewhat resemble the singular form of the pitcher plant, but having a long and curiously formed lip, are of a yellow and brown colour. We have known several species of this genus requiring the temperature of the stove, but have always found them exceedingly difficult to bloom.

GALACTODENDRON. UTILE. Palo de Vaca ; or Cow Tree of the Caraccas.

(Bot. Mag.)

URTICEÆ.

3. M. de Humboldt was the first to bring the Cow Tree of Caraccas, into notice. "We returned," he says, in his valuable Work, "from Porto Cahello to the valley of Aragua, stopping at the plantation of Barbula, through which the new road to Valencia is to pass. For many weeks, we had heard a great deal of a tree, whose juice is a nourishing milk. The tree itself is called the Cow Tree, and we were assured that the negroes on the farm, who are in the habit of drinking large quantities of this vegetable milk, consider it as highly nutritive ; an assertion which startled us the more, as almost all lactescent vegetable fluids are acrid, bitter, or more or less poisonous. Experience, however, proved to us during our residence at Barbula, that the virtues of the Cow Tree, or Palo de Vaca, have not been exaggerated. This fine tree bears the general aspect of the Star-Apple Tree ; its oblong pointed, coriaceous, and alternate leaves are about ten inches long, and marked with lateral nerves, that are parallel, and project beneath. The flower we had no opportunity of seeing ; the fruit is somewhat fleshy, and contains one or two kernels. Incisions, made in the trunk of the tree,

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are followed by a profuse flow of gluey and thickish milk, destitute of acridity, and exhaling a very agreeable balsamic odour. It was offered to us in calabashes, and though we drank large quantities of it, both at night and before going to bed and again early in the morning, we experienced no uncomfortable effects. The viscosity of this milk alone renders it rather unpleasant to those who are unaccustomed to it.

"The negroes and free people, who work in the plantations, use it, by soaking bread in it made from maize, manioc, arapa, and cassava; and the superintendent of the farm assured us, that the slaves become visibly fatter during the season when the Palo de Vaca yields most milk. When exposed to the air, this fluid displays on its surface, probably by the absorption of the atmospheric oxygen, membranes of a highly animal nature, yellowish and thready like those of cheese; which, when separated from the more watery liquid, are nearly as elastic as those of caoutchouc, but in process of time exhibit the same tendency to putrefaction as gelatine. The people give the name of cheese to the curd which thus separates when brought into contact with the air, and say that a space of five or six days suffices to turn it sour, as I found to be the case in some small quantities that I brought to New Valencia. The milk itself kept in a corked bottle, had deposited a small portion of coagulum, and far from becoming fætid, continued to exhale a balsamic scent. When mingled with cold water, the fleshy fluid coagulated with difficulty; but contact with nitric acid produced the separation of the viscous membranes.

"I own that among the great number of curious phenomena which offered themselves to my notice during my travels, there was hardly one which struck my imagination so strongly as the sight of the Cow Tree. Every thing which relates to milk—all which regards the Cerealia, inspires us with interest, which relates not solely to the physical knowledge of things but seems to be allied to another order of ideas and feelings. We can hardly suppose that the human race could exist extensively without some farinaceous substances, any more than the protracted weakness of the human nursing can be supported without the nutritive fluid of its mother's breast; and to this conviction is attributable the religious kind of reverence with which the amylaceous matter of the Cerealia has been regarded by people both in ancient and modern times, as also the feelings with which we gazed upon the stately tree that I have now described. Neither the noble shadowy forests, nor the majestic current of rivers, nor the mountains hoary with sempiternal snows,—none of these wonders of tropical regions, so rivetted my gaze as did this tree, growing on the sides of rocks, its thick roots scarcely penetrating the stony soil and unmoistened during many months of the year by a drop of dew or rain. But dry and dead as the branches appear, if you pierce the trunk, a sweet and nutritive milk flows forth, which is in greatest profusion at day-break. At this time, the blacks and other natives of the neighbourhood hasten from all quarters, furnished with large jugs to catch the milk, which thickens and turns yellow on the surface. Some drink it on the spot, others carry it home to their children; and you might fancy you saw the family of a cow-herd gathering around him and receiving from him the produce of his "kine."

Incited by this interesting narrative, by the chemical.

Sir Robert Ker Porter's drawing was accompanied by well dried specimens of the foliage, and by the following interesting particulars in a letter, dated Caraccas, June 8, 1837. "I had the pleasure of acknowledging the receipt of your letter of August (1836) on the 16th of the following November; but from great occupation in my official business, I had not a single day to spare that might enable me to satisfy yourself, and two or three other lovers of botany, relative to the Milk Tree. I have, however, made an excursion into the mountains, some fifty miles distant from this city, (about three leagues from the coast, not far from the town of Coriaccio, and after extreme pedestrian labour up the steep forest-covered face of the mountain, reached the spot where the Palo de Vaca grows. I assure you that the sight of this

extraordinary tree, fully repaid me for the fatigue and severe wetting I experienced. The close of last month was the period of my visit; but unfortunately, it did not prove that either of its flowering or fruit; however, I have sent you a bottle of the milk! some specimens of the leaves (as well preserved as circumstances would permit;) a piece of the bark, and a sketch copied from that which I took at the time. I should think the elevation above the level of the sea where this tree grows, cannot be less than four thousand feet, and the temperature at eight o'clock under its spreading branches was 70 degrees Fahr. The forest was so densely thick and untravelled, that the people who accompanied us were obliged, at almost every step, to cut away for us through it with their sword-like knives, while the excessive steepness and slippery state of the mountain rendered our advance both tedious and dangerous. However, after a couple of toiling days, we reached the group of sought-for trees, surrounded in all directions by others no less wonderful to look upon than themselves. The natives lost no time in making a deep incision into the bark of one, down to the very wood, from which burst forth the Milk, white and limpid as that of the cow, sweet to the palate and accompanied by an aromatic smell, but leaving a strong clamminess on the lips, and upon the tongue, a slight bitter. In a quarter of an hour, we filled two bottles with the produce of a couple of trees; for as our visit happened to be made during the wane of the moon instead of its increase the lacteal fluid did not flow so freely as it is said to do when drawn during the latter-named stage.

"The trunk of the Palo de Vaca from which the drawing was made, measured somewhat more than twenty feet in circumference at about five feet from the root. This colossal stem ran up to a height of sixty feet, perfectly uninterrupted by either leaf or branch; when its vast arms and minor branches, most luxuriantly clothed with foliage, spread on every side, fully twenty-five or thirty feet from the trunk, and rising to an additional elevation of forty feet, so that this stupendous tree was quite a hundred feet high in all. I saw others still larger: but the state of the weather drove us from our position. The leaves, when in a fresh state, are of a deep dark and polished green, nearly resembling those of the Laurel tribe, from ten to sixteen inches long, and two or three inches wide. The specimens sent, will enable you to form a botanical description of the foliage, as the portion of bark will do of that part of the tree; the wood, forming the body of the trunk, is white, very close-grained and hard, resembling the box-wood of Europe. The soil which these trees inhabit is dark and rich, and must be damp or very wet all the year round.

"I have been promised by one of the Indians who accompanied me that he would keep a look out for the fruit of the tree and send me some, when I shall have the satisfaction of forwarding a few specimens to you. But, with regard to the flower, or the flowering season of the tree, I have made enquiries over and over again, from persons who reside in the vicinity of other trees of the kind, in different parts of Venezuela; but they tell me that no one ever saw or heard of the Cow Tree flowering.

The imaginary statement of the tree not flowering may be accounted for by the nature of the blossoms, being in all likelihood small and inconspicuous, as in so many of the *Urticæ*, to which Nat. Order it is probably correctly referred: though whether it be a true *Brosimum* as Mr. Don is inclined to suppose, or a new Genus, as Humboldt has suggested, must yet remain a doubt. The leaves are large and handsome, and of a rich and somewhat velvety green hue. The fruit had the outer coat so much broken, that I will not venture to describe what is as faithfully represented as the nature of the specimens would allow. The bark of the larger branches is singularly yellow, as shown in our figure.

PART. III.

MISCELLANEOUS INTELLIGENCE.

 QUERIES.

ON FUNGI.—In lately reading one of your Numbers, I find a very praiseworthy and instructive Essay, communicated by "A Botanist," but there is one part of it with which I cannot coincide, namely, that which treats of the lower order of Fungi and Lichens being reproduced by sporules only. The subject, as he says, is involved in mystery, but I think he is explaining this mysterious affair too highly, I, like himself, formerly believed there was no spontaneous production, but that vegetation from the highest order, down to the lowest, was reproduced from seeds or sporules only. About twelve months ago having occasion to look over some apples which had been preserved all winter, I found one amongst them that was decayed on one side, but perfectly whole, that is, the rind was not broken or punctured in any way. I accidentally broke it in two parts, and to my surprise, found growing in the centre, upon the core, a very pretty blue Fungus; this threw immediately a check upon my former belief, I instantly closed it to examine if there was any aperture whereby the sporules might have entered, but nothing of the kind could I see; I further examined it to find any spawn which might have penetrated through its substance, but this was also wanting; I was perfect in my examination, for in breaking it I did not crush it, but broke it clearly into two parts. Now for the question, how came the Fungus there? It must certainly be from spontaneous production, or the sporules must have entered with the farina by the stigma through the style and into the germen when the fruit was in embryo, which, I think, is not at all a plausible way of explaining the mystery. CRYPTAS.

ON PRICED LISTS OF FLOWERS.—You would very much oblige a great admirer of your excellent periodical if you would insert an Essay on the art of propagating plants of all sorts by cuttings. It would embrace the theory of the operation, the modes whether under glass, in pots, or otherwise of effecting it, as well as the best season of the year at which it may be executed on different genera, species, and varieties of plants. We have many essays on the art of grafting, but I know of none in which the art of making cuttings is fully treated.

A list of the best varieties of Florists' Flowers, including Pinks, Wall-flowers, Stocks, Campanulas, Tulips, Anemones, Ranunculas, &c. &c. of good quality, but not so new as to be very expensive, would, if accompanied by a list of prices, be a very nice present for the spring.

I always look to the advertisements in your book with great curiosity, but am sorry to see them so much confined to Dahlias, surely a priced list of the other beauties of the garden, though, perhaps, rather old fashioned, would be acceptable. A. B.

 REMARKS.

LONDON HORTICULTURAL SOCIETY'S EXHIBITION.

The first exhibition of this Society, for this season, took place at their Gardens at Chiswick, May the 18th. The day was beautiful, and the attendance was as numerous and fashionable as it usually is at the corresponding

season of the year. Perhaps the number of persons present was about 3,000. Amongst other individuals of distinction we observed his Royal Highness the Grand Duke of Russia and suite, Prince Meskexikey, the Duke of Cambridge, the Earl of Bradford, the Earl of Lovelace, Earl Talbot, Lord Sondes, Lord Morpeth, the Countess de Salis, the Countess of Lichfield, &c. &c. The show of flowers was very good considering the earliness of the season. The following was the distribution of the prizes:—

PELARGONIUMS.

- Gold Banksian.—Mr. Gaines, Battersea.
- Gold Banksian.—Mr. Cock, Chiswick.
- Large Silver.—Mr. Hunt, gardener to Miss Trail.
- Silver Knightian.—Mr. Pratt, gardener, to Mr. Harrison.
- Large Silver.—Messrs. Colley and Hill.

HERBACEOUS CALCEOLARIAS

- Large Silver.—A. Foster, Esq., Clewer.
- Silver Knightian.—Mr. Catleugh, Sloane-street.
- Silver Banksian.—Mr. Green, gardener to Sir E. Antrobus.

SHRUBBY CALCEOLARIAS.

- Large Silver.—Mr. Green, gardener to Sir E. Antrobus.

LARGE COLLECTION OF STOVE AND GREENHOUSE PLANTS.

- Gold Knightian.—Mr. Green.
- Gold Banksian.—Mrs. Lawson.
- Gold Banksian.—Mr. Redding.

- Large Silver.—Mr. Jackson, nurseryman, Kingston.

SMALL COLLECTION OF STOVE AND GREENHOUSE PLANTS.

- Gold Banksian.—Mr. Bannon, gardener to Sir J. Lloyd.
- Large Silver.—Mr. Pratt, gardener to W. Harrison, Esq.
- Silver Knightian.—Mr. Upright, gardener to C. G. Ridge, Esq.
- Silver Knightian.—Mr. Dawson, gardener to W. Leaf, Esq.

CAPE HEATHS.

- Gold Banksian.—Mr. Barnes, gardener to G. W. Norman, Esq.
- Large Silver.—Mr. Lawrence.
- Large Silver.—Mr. Pratt.

- Gold Banksian.—Mr. Pamplin, nurseryman, Hornsey-road.

- Large Silver.—Mr. Jackson, Kingston.
- Silver Knightian.—Messrs. Rollinson, Tooting.
- Silver Knightian.—Messrs. Fairbairns, Clapham.

CUCUMBERS.

- Silver Banksian.—Mr. Barnes, gardener to Sir H. Jenner.

GRAPES.

- Large Silver.—Mr. Davis, gardener to Sir Simon Clarke.
- Silver Banksian.—Mr. Chapman, Vauxhall.

PINE APPLES.

- Silver Knightian.—Mr. Davis, gardener to Sir S. Clarke.

GREENHOUSE AZALEAS.

- Gold Banksian.—Mr. W. Smith, Norbiton.
- Large Silver.—Mr. Falconer, gardener to A. Palmer, Esq.

MELON SHAPED CACTI.

- Silver Knightian.—Mr. Pratt, gardener to A. Harris, Esq.

TALL CACTI.

- Large Silver.—Mr. Green.
- Silver Knightian.—Mr. Falconer.

ROSES.

- Large Silver.—Messrs. Lane and Co., Berkhamstead.

COLLECTIONS OF ORCHIDACEOUS PLANTS.

- Gold Knightian.—Mr. Mylan, gardener to S. Rucker.
- Large Silver.—Messrs. Rollinson and Co., Tooting.

SINGLE ORCHIDACEOUS PLANTS.

- Large Silver.—Mr. J. Bruce.
- Large Silver.—Messrs. Pince and Co., *Ocidium Pictum*,

Large Silver.—Messrs. Pince and Co., *Cephalotus follicularis*.
 Large Silver.—Messrs. Pince and Co., *Erica Elegans*.
 Large Silver.—Messrs. Vetch, *Chorizema Varium*.
 Silver Knightian.—Messrs. Rollinson, *Oncidium divaricatum*.
 Silver Banksian.—Ditto Ditto, *Cattleya forbesii*.
 Silver Knightian.—Mr. Dunsford, *Doryanthes excelsa*.
 Silver Banksian.—Mr. Pratt, *Rhododendron* species,
 Silver Knightian.—Mr. Lane, *Azalea Indica Variegata*.
 Silver Knightian.—Mr. Douglas, *Zetopia Specissima*.
 Silver Banksian 1.—Mr. G. Mills, *Clematis Sieboldii*.
 Silver Banksian, 2.—Mr. G. Mills, ———— *Auzurea grandiflora*.
 Silver Banksian 3.—Mr. G. Mills, *Fuchsia fulgens*.
 Silver Banksian.—Mr. Redding, *Tropæolum tricolorum*.
 Silver Knightian.—Mr. Lane, Seedling *Amaryllis*.
 Silver Knightian.—Mr. Mills, *Hydrangeas*.
 Silver Banksian.—Mr. Henderson, *Cineraris*.
 Silver Knightian.—Mrs. Lawrence, *Thunbergia Newtoniana*.
 Silver Knightian.—Messrs. Vetch, *Azalea Indica Plena Rubra*.
 Silver Banksian.—Mr. Lane, ———— *Laleritia*.
 Silver Banksian.—Mr. Halley, *Pœnia Arborea Victoria*.
 Silver Banksian.—Messrs. Pince and Co., *Rhododendron Victoria*.

The show of greenhouse and other rare plants were very numerous and especially fine; there were many specimens exhibiting very considerable skill in their culture, and reflected great credit on the parties who superintended their management. The plants very far exceeded all that we ever saw at any exhibition in the country, and were well worth the coming a few hundred miles to see.

We had not time to take down the names of every specimen, as the pressure of spectators was generally so great, as to preclude our standing long enough to enable us to do it, but among the many novelties and beauties, we noted down the following:—

Pelargoniums—The entire lot exhibited were of superior growth, each person exhibited twelve plants, and duly to appreciate the excellence of the specimens can only be done by seeing them. The winning specimens were fine in the extreme. They were plants struck in the autumn 1837, and now formed bushes about two foot and a half high, and three in diameter over the heads clothed in most vigorous foliage quite down to the edge of the pot on every side, so that not a stem could be seen, and these well-grown plants were profusely clothed with flowers of extraordinary size and beauty. The method of management we will give in a subsequent number.

The first twelve we noticed was that of Mr. Gaines of Battersea, who had the gold medal awarded for them, and to which he was justly entitled. They consisted of the following kinds. Criterion, Gaines's King, Gaines's Conqueror, Magnet, Pictum, Gauntlett, Lady Dillon, Dennis's Perfection, Lord Byron, Lady Denbigh, and Duchess of Roxburgh.

Those of Messrs. Colley and Hill, were the following;—*Diadem*, Louis Philippe, Climax, Duchess of Sutherland, Pictum, *Hericartianum*, Maid of Athens, Fosteri Rosea, Gem, Beauty of Ware, Dennis's Perfection, Lady Mary.

There were fine specimens of the following new or rare plants, viz.

Indian Azaleas.—Smith's Triumphans, fine rose, upper part crimson and spotted, fine formed flower.
 Ditto. Smith's Grandiflora novæ, rosy purple, a very large flower.
 Ditto. Smith's Bella, fine pink.
 Ditto. Smith's Coccinea superba, scarlet, upper part tinged with purple, fine flower.
 Ditto. Smith's Seedling, very fine purple and pink.

- Ditto. *Speciosissima*, rosy-crimson, slightly spotted, plant eight feet high, in profuse bloom.
- Ditto. *Speciosa*, pink.
- Ditto. *Rubra plena*, a double flower of a fine light-red colour, from Mr. Veitch, Exeter.
- Ditto. *Purpurea splendens*, a fine bright purple flower, from A. Palmer, Esq., a very striking variety.
- Ditto. *Monstrosum*, (Smith's) lilac tinged with purple, a very large flower.
- Azalea rubra*. A plant in profuse bloom, twelve feet high.
- Ditto *variegata*. Centre of flower flesh colour, with an edge of white, by J. H. Palmer, Esq.
- Ditto *sinensis*. A plant six feet high, clothed with its deep golden yellow flowers, by Mr. A. Stewart, Salthill.
- Rhododendron hyacinthiflora*. Purple flower nearly double.
- Ditto. *Multi-maculata*, (Smith's) white, upper petals, slightly tinged with blush, and spotted with dark brown.
- Thunbergia Hawtoneyana*. Blue, having a white centre, with the throat streaked with yellow.
- Lobelia ramosa*. Four feet high, with numerous branches in profuse bloom, deep blue flowers, yellow spot at centre, about one inch across.
- Lophospermum rosemarinifolia*. With narrow leaves and fine rose-coloured flowers.
- Chorizema spartoides*. With narrow leaves, but not yet bloomed.
- Pimelea incana*. The foliage has a silvery appearance, being densely clothed with hair. The flowers are terminal heads, white.

PELARGONIUMS.—Descriptions of the most superior kinds of *Pelargonium* now in cultivation, as recently seen in the metropolitan nurseries:

- Phosphorus, rosy purple, round and large petals.
- Louis d'elyte, fine large rose, large dark spot on upper petal.
- Louis Quartoize, white, with very large dark crimson purple spot, very superior.
- King, (Gaines's) very beautiful rosy crimson, lighter towards the centre, the form of the flower is very perfect and large.
- Lady Dillon, upper petals rose, lower lilac, large flower.
- Bellissima, white, with large dark crimson spot, no streaks upon the flower.
- Duchess of Roxborough, very fine rose, with large dark spot, a large and superior flower.
- Fosterii Rosea, with large dark spot, a large flower of very fine form.
- Faunus, lower petals a rosy pink, upper ones crimson with dark spot, a fine flower.
- Sir John Sebright, lilac, with very large dark crimson velvet spot, a fine flower.
- Chefe d'œuvre, white with large reddish spot.
- Bleda, fine rosy crimson, with large crimson spot, large flower.
- Perfection, (Garth's,) lower petals, flesh colour, upper ones rose with dark spot, a fine formed large flower.
- Touchstone, fine scarlet, about the size and form of the well known Daveyanum.
- Rose Ecclatante, lower petals rosy purple, upper ones, rosy crimson, with a large dark spot.
- Mrs. Norcliffe, white, with large dark crimson spot.
- Gauntlett, lower petals light crimson, upper ones fine scarlet crimson, a large flower.
- Criterion, white, with large dark spot, fine flower.
- Lord Byron, rosy purple, with large dark spot, very fine formed flower.
- Pictum, white, large spot, and upper petals streaked.
- Aletia, white, tinged with blush, rosy crimson spot.
- Colossus, lower petals rose, upper ones crimson with dark spot, good formed flower.

Climax, lower petals rose, upper ones bright rose with dark spot.
 Conqueror, rosy purple with large dark spot, large and fine flower.
 Maid of Athens, lower petals pink, upper ones fine rose with large dark spot.

(To be continued.)

REFERENCE TO PLATE.

HOVEA FUNGENS.—This very beautiful flowering species we saw in bloom at Messrs. Rollisson's of Tooting, and they have informed us it had been received by them from Baron Hagel of Vienna. It is a native of South Australia, and is a most charming addition to our greenhouse plants. All the species delight in a very free drainage, light and airy situation, and to be grown in a compost of loam and sandy peat. The present species appears to be of a more bushy habit than any other of its family, but blooming so profusely, renders it very showy.

CONVOLVULUS PENTANTHUS.—This is a peculiarly neat and pretty flowering climber, we saw it in profuse bloom at Mr. Groom's, in his plant stove, and at the Hammersmith Nursery, in the plant stove. It appears, however, that it would do well in a greenhouse or conservatory during summer, but of course would bloom a little later than in the stove. The plant grows very rapid and blooms for several months very profusely. We procured a number of plants a few weeks back, and found it flourish with the greenhouse, treatment so far.

AMPHICOME ARGUTA.—We procured several of this very handsome flowering plant some time back, and consider it one of the best additions in new plants that have recently been introduced. Seeds of it were sent by Dr. Royle to the London Hort. Society, they had been collected on the Himalayah mountains. The plant has been distributed extensively by the Society. The plant is of a very pretty habit in its growth and foliage, and blooms very freely. It has been usually grown, since its introduction, in the greenhouse, but it is considered to be hardy, growing near a yard high, and blooming freely in the open ground during summer. The plant is an herbaceous perennial, and deserves a place in every greenhouse or flower border.

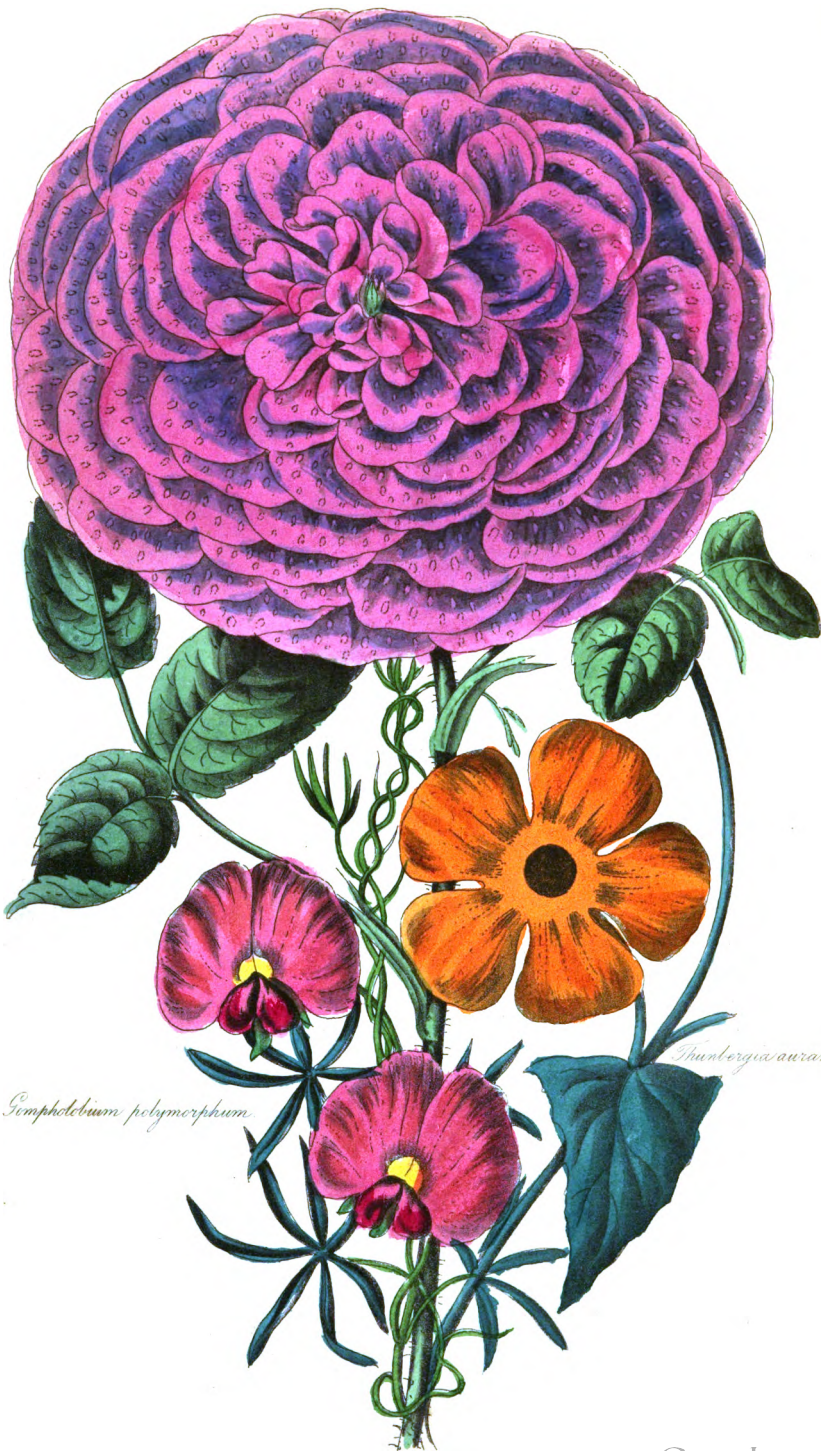
CHORIZEMA RUSCIFOLIA.—This very pretty flowering species has recently been introduced into this country by Mr. Groom, of Walworth. We saw it in bloom this spring; it is a very pretty species, and well deserves a place in every collection. In habit and flower it approaches nearest to *Chorizema Dickinsonii*; it is of a dwarfish habit, and blooms at the extremity of every strong shoot.

RHODODENDRON OSBORNII.—This very fine flowering *Rhododendron* has been raised in the nursery of Messrs. Osborn & Co., Fulham, near London. We saw its splendid bloom in May, and consider it very far to exceed all others of its class in this country. It deserves to be in every collection, but we suppose it will not be sent out before the next season. When ready for sale, it will be announced.

FLORICULTURAL CALENDAR FOR JUNE.

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.

801 August 183



Mimulus polymorphum

Mimulus aurantiaca

Mimulus maculata

112 June 1937

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Deplacus puriceus.



Isotropus striatus.

Thunbergia Hawtonia.

THE
FLORICULTURAL CABINET,

AUGUST 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

- ARTICLE I.

ON THE PLEASURE AND PROFIT ARISING FROM CULTIVATING
PLANTS AND FLOWERS.

BY MR. W. WOODMANSEY, HARPHAM, NEAR BRIDLINGTON, YORKSHIRE.

It was a saying of the celebrated STERNE, "that most people have their hobby-horses;" the literal meaning of which I take to be, that most people have their favorite pursuits, or amusements; and so long as these pursuits or amusements, are compatible with our duty to God as Christians, and militate not against the welfare of our fellow men; so far are they innocent, rational, and profitable. Among all the various amusements which this fascinating world holds out, I think none is more innocent, more rational, or more profitable, than the cultivation of flowers: those beautiful gems with which our divine Creator has studded our meadows, and kindly furnished to beautify our gardens; whose brilliant colors vie with the rainbow, and infinitely surpass the most costly tints, and whose balmy fragrance scents the surrounding atmosphere with perfumes more agreeable than the spices of Arabia! Who can behold their exquisite symmetry? Who can admire their diversified yet splendid colors? Or, who can feast his senses on the aromatic sweets which emanate from their beautiful blooms, without feeling a sort of sacred pleasure stealing imperceptibly into his very soul, and leading its finest feelings willing captives to their inimitable charms?

It is said, and very truly too, that the study of Astronomy, that sublime science, which teaches the various revolutions of those

spheres which nightly bespangle the nocturnal heavens, is admirably calculated to lead the mind from Nature up to Nature's God. And if the contemplation of those luminaries, placed as they are at such immeasurable distances; and which can act only upon the ocular nerves, has this tendency; how much more ought the beauties of Flora, producing as they do, a threefold evidence on the senses? Yes—

The blushing tint, the crimson streak,
The powers of heavenly wisdom speak;
And all their balmy fragrance join,
To show their Author is divine.

In fact, there is not a blade of grass, or a wild flower that decks our lawns; but which is replete with instruction, and shows forth the handy-work of the great and glorious Creator of the Universe.

“Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read, and read,
And read again, and still find something new—
Something to please, and something to instruct
E'en in the noisome weed.”—HURDIS.

Solomon, the wisest man, was a great admirer of the beauties of the floral kingdom. And our blessed Redeemer expressly commands us to “Consider the lilies of the field;” and if, with an example like that of Solomon before us; and after receiving a command from our Saviour himself, we can still remain insensible to their charms—still refuse to contemplate their inimitable beauties, we must lack much of that spirit of refinement which purifies the grossness of depraved human nature, and makes man fit for the society of Heaven.

“The men
Whom nature's works can charm, with God himself
Hold converse: grow familiar day by day,
With his conceptions; act upon his plan;
And form to his, the relish of their souls.”—AKENSIDE.

Among all the productions of the vegetable kingdom, there is not a single individual, but which has its uses; even those very tribes which daily remind us of man's awful fall, and the curse

pronounced upon the earth for his sake; have in them properties of peculiar usefulness, and prove beneficial to the wants of man.—God hath made nothing in vain!—some are for use, others for ornament, and not a few, perhaps all, are possessed of medicinal properties. Properties! without which, life itself would be a burden; and which, if utterly deprived of, it would be utterly impossible for man to exist.

Since then, there is such innocent amusement, such rational pleasure, and such mental improvement in the cultivation of plants, and flowers: and since it is so well calculated to enhance our spiritual interests; and render us more fitting for the society of beings of a higher order than ourselves, and especially for the society of our divine Maker. Let me, for one, disdain more ignoble and trifling pursuits. Let me fly from the deluded votaries of mere sensual gratifications, and in

“ The calm retreat!
 (Far from the noisy haunts of sordid men,)
 Where Flora trains her lovely offspring up,
 To captivate and charm! there let me muse!
 Surrounded by her rich and dazzling train,
 Till lost in ecstasy, my soul takes wing;
 And soars from nature up to nature's God!
 There may I lie, wrapped in the flowery vest
 Of silent rapture, till my soul breaks forth,
 And in the language of the immortal bard,
 Who sung the fatal fall—transported cries,
 ‘These are thy glorious works, Parent of good!
 To us invisible, or dimly seen
 In there thy lowest works; yet these declare
 Thy goodness beyond thought, and power divine!’ ”

July, 1839.

ARTICLE II.

REMARKS ON THE CYPRESS.

(Continued from page 154.)

THE ancients, who had great faith in balsamic scents, supposed therefore that the cypress improved the air by its transpiration; and on which account, the eastern physicians sent all those who had pulmonic disorders to the Isle of Candia, where these trees

abound; and we are assured, that the aromatic smell of this ever-green was found to be a specific for the lungs.

It is clearly ascertained, that trees correct a putrid bad air. It should, therefore, be our study to find out those that do it most powerfully; and having ourselves so often been revived and refreshed by the natural perfumes of the garden and fields, we deem it worthy the labours of medical students, to learn how far aromatic and balsamic scents may be good for those who are troubled with weak lungs.

By whom the cypress tree was first introduced to England, and at what exact period, we are not able to learn; but it is probable, that we are indebted for this celebrated tree to some pious abess or holy fathers of Sion Monastery, near Brentford, which is now become Northumberland's ducal palace; as Dr. Turner tells us, in his Herbal of 1568, "it groweth right plenteously in the gardine of Sion." Gerard notices, in 1597, "that it groweth likewise in diuers places of Englande, where it hath beene planted, as at Sion, a place near London, sometime a house of nunnes; it groweth also at Greenwich, and at other places; and likewise at Hampsteed, in the garden of Master Waide, one of the clarkes of hir maiesties privy-counsell."

Evelyn says, in 1664, "the cypress tree was, but within a few years past, reputed so tender and nice a plant, that it was cultivated with the greatest care, and to be found only amongst the curious;" whereas we see it now in every garden, rising to as goodly a bulk and stature as most which you shall find even in Italy itself. Forsuch I remember to have once seen in his late Majesty's gardens at Theobalds, before that princely seat was demolished. The author of the Sylva strongly recommends the planting of this tree in England; and of its hardiness he says, "the March and April winds (in years 1663 and 1665), accompanied with cruel frosts and cold blasts, for the space of more than two months, night and day, did not, amongst near a thousand cypresses growing in my garden, kill above three or four, which, for being very late cut to the quick, (that is, the latter end of October), were raw of their wounds, took cold, and gangreened." From this and other recommendations of Evelyn, we presume it became fashionable to cultivate the cypress, for in 1706, when Loudon and Wise published "The Retired Gardener," they say, "cypress was formerly more in fashion than 'tis now; for we see in some places whole alleys of it; but these trees being apt to take

but one sort of figure, which is that of a pyramid, and the yew tree and pieca being more proper for the variety of forms of which they are susceptible, to adorn gardens, cypress has lately been neglected, and the other two trees been more planted." Thus it is evident that the cypress was driven out of the garden by the shears, whose business it was to disfigure nature, by transforming evergreens into urns, sugar loaves, extinguishers, and a thousand other whimsical devices, as suited the taste of the owner, or the ability of their gardeners, who have not been improperly called evergreen tailors. But the cypress may now safely return to its station in our plantations, since the shears have left the grove, and are now as busily employed in disfiguring the human shape, as they were formerly in mutilating vegetable beauties.

There is no part of ornamental planting more difficult than the distribution of evergreen trees, which are either the most permanent beauties of the grove, or the most gloomy features, accordingly as they are dispersed. A plantation composed entirely of trees that are not deciduous, has an aspect so sombre, that the name of nevergreen may be more properly applied to them than that of evergreen ; yet they cheer our winter scenes most beautifully when happily blended with those deciduous trees, whose colour and character assimilate best with them. But we are not admirers of that regularity and uniformity so often offensive to the eye in large plantations, where there is no deviation from the fir and the larch, unless where death has made a gap, when you are treated with a larch and fir through hill and dale to the end of the plantation.

The cypress seems admirably adapted to ornament those lawns which surround villas or lodges built in the Grecian style, and perhaps we have no tree that accords so well with stone or stuccoed edifices as the cypress ; and even the temples of marble lose half their effect if surrounded by other buildings instead of being relieved by the foliage of trees. At the present time, the burial hill of Pere-la-chaise, near Paris, forms a most interesting picture, as the numerous and various formed monuments rise above the young abores vitæ and cypresses, like a city of marble emerging from a forest, and from which, a friend observes, we may form a faint picture of the beautiful appearance of Constantinople from the Bosphorus ; the hills on which that city stands being intermixed with white buildings and green foliage, which forms a spectacle not equalled in any other part of Europe.

We have two varieties of the common cypress, *sempervirens* the upright and the spreading, which the ancients distinguished as male and female trees; but the botanist will know by the class in which these trees are placed, that they are androgynous plants, viz. having male and female flowers on the same root. It appears that the ancients did not consider the seed of a tree to be a fruit, unless it was eatable; for Phocion, who was so celebrated in Athens for his private and public virtues, remarked to a young man who spoke with more vanity than good sense, "Young man, thy discourse resembles the cypress; it is large and lofty, and bears no fruit." What would this Athenian, whose virtues were as incorruptible as the cypress itself, say to some of our modern speeches and publications?

When we plant the cypress in the shrubbery, it should be correctly ascertained if it is the spiral or the spreading variety; for the former requires but a small space, and should be placed behind those flowering shrubs whose extending branches require such an addition: whilst the spreading cypress may wave its mournful branches over the daisy-pied lawn, or form a foreground to the pointed poplar. But it requires considerable ingenuity to place the cypress happily in our plantations; for in most situations its dark and slender head adds a gloom rather than cheerfulness to the scene, particularly in autumnal evenings; when either the sun leaves its last streak, or the rising moon sends a silvery stream of light down the dark foliage, which gives additional sombre to the shade, and a spectre-like appearance to the imagination of the gloomy mind.

The spreading cypress is by far the largest growing tree, and is the most common timber in some parts of the Levant. This, if planted upon a warm, sandy, gravelly soil, will prosper wonderfully; and though the plants of this sort are not so finely shaped as those of the first, yet they greatly recompense for that defect by their vigorous growth and strength, in resisting all weathers. This tree is very proper to intermix with evergreens of a second size next to pines and firs, to form clumps, in which class it will keep pace with the trees of the same line, and be very handsome. Besides, the wood of this tree is very valuable, when grown to a size fit for planks, which I am convinced it will do in as short a space as oaks; therefore, why should not this be cultivated for that purpose, since there are many places in England where the soil is of a sandy or gravelly nature, and seldom

produce any thing worthy cultivating? Now, in such places, these trees will thrive wonderfully, and greatly add to the pleasure of the owner while growing, and afterwards render as much profit to his successors, as perhaps the best plantation of oaks."

Pliny tells us, that in Italy it was considered amongst their most profitable plantations, and was generally cut for poles once in every thirteen years, and that this fall was called *dos filiæ*, because the profit was reckoned a sufficient marriage portion for a daughter.

This timber is reckoned amongst the sonorous woods; it is therefore used for harps, violins, and other musical instruments, and it is said that no wood is better calculated to resist the ravages of the worm, &c.

The deciduous cypress tree, *cupressus disticha*, is a native of North America, and it appears to have been introduced to this country by Mr. John Tradescant, of South Lambeth, where it was planted prior to 1640. We have now two varieties of this species of cypress.

Cupressus lusitanica, commonly called the cedar of Goa, from whence it was first brought to Portugal, and is therefore named the Portugal cypress. We learn from Mr. Ray's letters, that this species of cypress was cultivated in England as early as 1683, but it is not considered so hardy as the common cypress, and is therefore less planted; formerly there were some of these trees growing in the Bishop of London's garden, at Fulham, and there was a fine tree of this species in the gardens of the Duke of Richmond, at Goodwood, near Chichester, which was killed by the frost in 1740.

The arborvitæ leaved cypress, or white cedar, *cupressus thyoides* is a native of North America, and Peter Collinson, Esq. had the honour of giving it British soil in 1736. This species grows naturally in China and Cochinchina; it loves a strong moist soil, and abounds in the swamps of New Jersey, and some parts of Pennsylvania and New York.

BY AN HORTICULTURIST.

ARTICLE III.

ON THE CULTIVATION OF ERICAS.

(Continued from page 132.)

It is long been an opinion, that the *Epacris*, *Helichrysum*, and some other similar plants of the genera, enumerated at the commencement of this article, should not be taken out of the Greenhouse during summer, as the majority of plants are. This opinion is strengthened, by the success I have experienced, in a collection of about three hundred species of the best sorts, so managed under my own immediate charge, and much more so by observing the practice of those French and German cultivators who follow a similar plan, as well as that of the superior management of these plants in the Edinburgh botanical garden, where specimens are to be seen grown in tubs, from three to four feet in diameter, and the plants from eight to twelve feet in height. No cultivator has been so successful in this department as Mr. M'Nab, the intelligent curator of that garden, from whose valuable treatise on the subject we take the following quotation. "When I mention the treatment of heaths when in the house," he says, "I must let it be understood that if I had sufficient accommodation under glass, I never would take heaths out of doors, unless it were for the purpose of shifting, or taking them from one house to another. My practice would be to keep them in the house all summer, giving them plenty of air, and to keep them cool during winter. I know it is the common practice to turn heaths out of doors for four or five months in summer and autumn, and it is also a pretty general opinion that by doing so it makes them hardier, and enables them to stand the winter better than they would do if kept within doors during summer. From this opinion I must take the liberty of differing' as I know of no species of heath that will not bear as much cold in winter, without suffering from it if kept in the house during summer, as they do when turned out of doors, and many of them, (perhaps all), I know, will bear more cold in the winter. For, by the latter practice, the young wood gets better ripened, and better able to resist cold in winter." The same excellent authority, in speaking of plants in general, recommends, where there is sufficient accommodation, to keep all plants under glass during summer, and, in such cases, to allow them plenty of room, "for unless they are placed quite

separate, "he observes," from each other, so that a free circulation can pass among them, they will suffer much more when crowded in the house in the summer, than they will do in the same situation during the winter, for in winter they are in a more dormant state, and not growing with the same vigour. I would however advise every one to keep as many of their best specimens and best kinds within doors during summer as they can, without having them crowded together. I cannot give better directions than to say, that one should not touch the other when in the house in summer, and if the nearest part of one to the other is two or three inches apart, so much the better. The house, however, should be ventilated at all times, and, except in cases of high wind or heavy rain, both top and front lights should be kept open night and day; and besides watering the earth in the pots freely when they require it, they should be well watered over-head with the garden engine every day; and if the weather is hot and dry, this operation should be performed twice every day, namely, both morning and evening."

There is one branch of culture in which I differ from the talented writer above quoted; he recommends a partial degree of shade during the hottest days of summer. In this particular the Messrs. Loddiges agree with me as do most of the continental cultivators. This however, may be less important in the latitude of Edinburgh than in that of London, and is certainly much less so there, than in most parts of France, or the south of Germany, and for that reason it may not be noticed in the excellent directions laid down by Mr. M'Nab. Messrs. Loddiges follow the continental fashion of shading by means of long slender branches of birch or other deciduous trees, which are laid over the roof of the house, breaking the full force of the sun's rays, while at the same time air is not much obstructed. My practice is to shade by spreading netting over the roof, and latterly by having a fine thin canvass awning, mounted on rollers, on the top of the house, which is let down or taken up at pleasure.

Air cannot be too freely admitted to heaths, and indeed, to all similar plants, and to effect this the upright lights may be left open altogether, until the thermometer, in the open air, falls to two or three degrees below the freezing point; indeed, we have even had the mould in the pots frozen pretty hard without the application of fire heat. If the house be pretty air-tight and dry, fire heat will seldom be required; for we find by Mr. M'Nab, (*Treatise*, p. 31.)

that he has had no accident in this respect when the thermometer out of doors indicated sixteen degrees of frost. The following quotation on this subject of temperature is so excellent that we are induced to give it at length.

“I have had all the heaths in the house frozen for days together, so hard that the pots could not be removed from their places without breaking them, and fresh air constantly admitted at the time, and I have never seen one of them suffer in the smallest degree from it; but, on the contrary, found them thrive better than under any other treatment.

“I have several times had the heath house in winter without fire heat, when the thermometer out of doors stood at sixteen degrees below freezing. But in these cases the house was always shut close, and I have never seen the heaths suffer from this cold. I would not, however, advise any person to risk his heaths in such a temperature until he had himself tried some experiments on the degree of cold which they will bear, and from that he will learn more than he could from volumes written on the subject; a very little observation will soon convince him that his heaths require but little fire heat during winter. I have already said that heaths suffer from too much artificial heat; and all that I have read on their cultivation seems to concur in this particular; but I am not aware that any one has pointed out what degree of heat or cold is injurious; and, indeed, I have only been able to ascertain this myself, to a very limited extent. The time, however, when these plants suffer most from heat is, when a sharp frost sets in, and no heat is applied till after the frost has taken effect in the inside of the house; then a fire is put on, and the frost is driven out. It is better, no doubt, in such a case, to keep out the thief if you can, but if once let in, keep him in, and never attempt to force him out. I know that heaths in the open air will not suffer when the thermometer stands four or five degrees below freezing; and we know also, that heaths, in the house in winter will bear the same degree of cold with impunity. Now suppose the thermometer out of doors to fall to twelve or fourteen degrees below freezing, and no heat in the heath house; the thermometer in the inside may then be four or five degrees below freezing.

(To be continued.)

ARTICLE IV.

ON THE CULTURE OF LILIUM JAPONICUM, &c.

BY W. GRIFFITH, ESQ., BAYSWATER.

I AM of opinion that with many plants they only display properties and beauties in proportion to the care bestowed in their cultivation, and this principle is of very extensive application. The *Hydrangea*, for instance, as it is seen in common-place culture is scarcely deserving of notice, but place it under favourable circumstances, and it becomes not only interesting, but even to a degree, beautiful.

I recently saw a number of plants at Gusmenbury Park, in so vigorous and healthy a state that I was quite struck with their beauty, among them was an equal proportion of fine blue and rose coloured heads more than a foot in diameter. The same might be said of many other old inhabitants of our gardens and greenhouses, who, with every particular of beauty and elegance to recommend them, have been suffered to dwindle away, merely to allay a thirst for novelty; I do not condemn the introduction of new plants, on the contrary, I would encourage it to the utmost, but I certainly do think that the indifference with which many plants are passed over merely because they are "old," is very much to be regretted.

It is my intention to describe the mode of culture by means of which I have grown the *Lilium Japonicum* L. *longiflorum* to a state of great beauty. The mode of culture I pursue, is, when the leaves and seed (if any) are fully matured, water is gradually withheld till the plants are brought to a state of perfect rest; this rest is indispensable in the cultivation of all bulbous rooted plants, as it tends to strengthen those properties which are to form the attractive beauties of the plant the succeeding season. The bulbs being thus matured are placed in pots in a cool dry situation beyond the reach of frost, where they remain till the middle of January. They are then brought into the greenhouse, and moderately supplied with water for a fortnight. By that time they are in a fit state to be re-potted, which is done in the following manner. The bulbs are taken out of the pots, and the dry mould and offsets carefully removed. They are then re-potted according to their size, the largest in pots six or eight inches in diameter. The soil I use is about half turfy peat, a quarter of sandy peat,

and a quarter of well-rotted cow-dung, not sifted but broken with a spade. After potting they are removed to the greenhouse; when water is supplied moderately till they begin to vegetate, it is then gradually increased at discretion.

By this mode of treatment, I have had flower stems five feet high, and in one pot as many as twenty flowers; their large pure white and lovely blossoms, so delightfully fragrant, amply repaid me for my trouble. The plants are well deserving a place in every greenhouse, being easy of culture and so strikingly and delicately beautiful.

ARTICLE V.

ON CHINESE GARDENS.

(Continued from page 158.)

SOME of these are very small, sufficient only to contain one or two weeping willows, birch, larch, laburnam, or some other pendant plants, whose branches hang over the water; but others are large, highly cultivated, and enriched with lawns, shrubberies, thickets, and buildings: or they are rugged, mountainous, and surrounded with rocks and shoals; being covered with fern, high grass, and some straggling large trees, planted in the valleys: amongst which are often seen stalking along the elephant, the tin-hyung or man bear, the rhinoceros, the dromedary, the ostrich, and the sin-sin or black giant baboon.

There are other islands, raised to a considerable height, by a succession of terraces, communicating with each other by various flights of magnificent steps. At the angles of all these terraces, as well as upon the sides of the steps, are placed many brazen tripods, that smoke with incense; and upon the uppermost platform is generally erected a lofty tower for astronomical observations; an elegant temple, filled with idols; the colossal statue of a god; or some other considerable work: serving, at the same time, as an ornament to the Garden, and as an object to the whole country.

They also introduce in their lakes large artificial rocks, built of a particular fine coloured stone, found on the sea-coasts of China, and designed with much taste. These are pierced with many openings, through which you discover distant prospects: they have in them caverns for the reception of tortoises, crocodiles, enormous water-serpents, and other monsters; with cages for rare

aquatic birds; and grottos, divided into many shining apartments, adorned with marine productions, and gems of various sorts. They plant upon these rocks all kinds of grass, creepers and shrubs, which thrive in such situations, as moss, ground-ivy, fern, stone-crop, common house-leek, and various other sorts of the sedum, crane's-bill, dwarf box, rock roses, and broom; with some trees rooted into the crevices: and they place on their summits, hermitages and idol temples, to which you ascend, by many rugged, winding steps, cut in the rock.

But far the most extraordinary, as well as the most pleasing of their aquatic constructions, are the Hoi-ta, or submerged habitations, consisting of many galleries, cabinets, and spacious halls, built entirely under water; their walls are decorated with beautiful shells, corals, and sea-plants of all sorts, formed into many singular shapes, and sunk into various irregular recesses; in which are placed, in due order, Fung-shang, God of the Winds; Bong-hoy, Monarch of the Sea; Shu-Kong, King of the Waters; with all the inferior powers of the deep. The pavements are laid in compartments of jasper, agat, and madrepores of Hay-nang, of the many extraordinary kinds: the ceilings are entirely of glass, which admits the light through the medium of the water, that rises several feet above the summits of these structures; the glass is of various bright colours, very strong; and the different pieces, artfully joined, to resist the pressure of the fluid with which they are loaded. The use of these habitations, is the same as that of Miao-ting, before described: they are resorted to, in very hot weather, to feast and enjoy; and it is singularly entertaining, in the intervals of pleasure, to observe, through the crystal ceilings, the agitation of the waters, the passage of vessels, and sports of the fowl and fishes, that swim over the spectator's heads.

On the borders of their lakes are seen extensive porticoes, and many detached buildings, of different forms and dimensions, accompanied with plantations, sea-ports with fleets of vessels lying before them, forts with flags flying, and batteries of cannon: also, thickets of flowering shrubs, meadows covered with cattle, corn lands, cotton and sugar plantations, orchards of various fruit-trees, and rice grounds, which project into the lakes; leaving, in the midst of them, passages for boats: and, in some places, the borders consist of lofty woods, with creeks or rivers for the admission of vessels, whose banks are covered with high grass, reeds, and wild spreading trees, forming close gloomy harbours, under, which

the vessels pass. From these harbours are cut many vistas through the woods, to distant prospects of towns, bridges, temples, and various other objects, which successively strike the eye, and fill the mind with expectation; when suddenly a farther progress is rendered impracticable by rocks, strong branches, and whole trees lying across the channel; between which the river is still seen to continue, with many islands; whereon, and also in the water appear the remains of antient structures, monumental inscriptions, and fragments of sculpture: which serve to give an edge to curiosity, and to render the disappointment more affecting.

Sometimes too, instead of being intercepted in your passage, the vessel, together with the whole river, are, by the impetuosity and particular direction of the current, hurried into dark caverns, overhung with woods: whence after having been furiously impelled for some time, you are again discharged into day-light, upon lakes encompassed with high hanging woods, rich prospects on mountains, and stately temples, dedicated to Tien-ho, and the celestial spirits.

Upon their lakes, the Chinese frequently exhibit sea-fights, processions, and ship-races; also fire-works and illuminations: in the two last of which they are more splendid, and more expert than the Europeans. On some occasions too, not only the lakes and rivers, but all the pavilions, and every part of their Gardens, are illuminated by an incredible number of beautiful lanterns, of a thousand different shapes, intermixed with lampions, torches, fire-pots, and sky-rockets; than which a more magnificent sight cannot be seen. Even the Girandola, and illumination of St. Peter's of the Vatican, though far the most splendid exhibitions of that sort in Europe, are trifles, when compared to these of China.

At the feast of Lanterns, in particular, all China is illuminated, during three days: it seems as if the whole empire were on fire; every person lights up a number of painted lanterns, of various beautiful forms; sometimes of horn, glass, or mother of pearl, but most commonly framed of wood, carved, varnished and gilt, upon which is strained thin silk, painted with flowers, birds and human figures, that receive an uncommon brilliancy from the number of lights within: some there are likewise made like our magic lanterns, representing, by coloured shadows, ships sailing, armies marching, horses galloping, and birds flying; others are full of puppets, representing mountebanks, buffoons, boxers, wrestlers and dancers

which are moved by imperceptible threads, the actions being accompanied by the voice of the operator, modified in different manners; all so conformable to the size and gestures of the figures, that they seem really to speak.

There are likewise lanterns made in the form of tigers, dromedaries, and dragons of an enormous size; which are painted in transparency, and filled with lights: these are moved about the streets by men concealed within them, who artfully give to the machine every motion of the animal it represents; others there are seen floating upon the lakes and rivers, built like boats and vessels of various kinds, or shaped like dolphins, alligators and porpuses, that swim and curvet upon the water; others again that resemble birds fluttering amongst trees, or perched on the summits of the houses, on all parts of their temples, triumphal arches, and public structures of different kinds: in short, there is scarcely any form that can be imagined, which is not given to some of these lanterns; all executed with the greatest taste and neatness, often at a very considerable expence; some even to the amount of a thousand tael, or near three hundred and fifty pounds.

It is likewise upon this festival that the most splendid of their fire-works are exhibited; it would be tedious to describe them particularly, as they resemble, in many things, our European ones; but what is related on that head, by one of the missionaries, is curious, and may here be inserted, to give the reader an idea of Chinese skill, in works of this sort.

“I was extremely surprized,” says the father, “at a fire-work which I saw at Pe-king, representing an arbor of vines; it burnt for a considerable time, without consuming; the grapes were red, the leaves green, and the color of the stem and branches variegated, in imitation of nature; all the forms were represented with the utmost precision, in fires of different colors; the whole was executed with amazing art, and had the most pleasing effect imaginable.”

Their rivers are seldom straight, but winding, and broken into many irregular points; sometimes they are narrow, noisy and rapid; at other times deep, broad and slow. Their banks are variegated, in imitation of nature; being in some places bare and gravelly, in others, covered with woods quite to the waters edge; now flat and adorned with flowers and shrubs, then steep, rocky, and forming deep winding caverns, where pigeons of the wood, and water-fowl build their nests.

(To be Continued.)

REVIEW.

The Amateur Florist's Assistant in the selection and cultivation of Popular Annuals; to which is added a descriptive catalogue of the more interesting tender Perennials used in decorating the Parterre, and a copious list of European Ornamental Alpine Plants.—By GEORGE WILLMOTT, 12mo., p.p. 76.

(Continued from page 160.)

“Next to slugs, ear-wigs are usually the most pestiferous annoyance the flower-grower has to encounter; their ravages, however, are more confined to certain plants, and are experienced at a more advanced period of the season—generally when the plants are in flower, or nearly so. The best means of getting quit of them is to lay a few short reeds, pieces of rolled paper, &c. about the plants, in which they will take shelter during the night, and from whence they may be blown or shaken in a vessel of water in the morning.

The wire-worm is also very destructive to certain kind of Annuals, particularly French Marigolds, Stocks, China Asters, &c., and attacks them from the period of germination almost to the time of flowering. The hard skin by which this enemy is covered effectually protects it from injury by any application that will not prove injurious to the plant; therefore, the only means to entrap it is to supply it with more agreeable food, such as pieces of potatoe, carrots, &c., which may be sunk in the earth around it, near the plants, marking the place, so that it may be withdrawn and the worms picked out daily until extirpated. They are most prevalent in soils recently brought under cultivation, as old pastures, &c.; therefore, care should always be taken that they be not introduced among borrowed earth from such places.

The management of hardy annuals, after briarding, consists in thinning them out to proper distances, varying from two to six inches, or more, according to the sizes and habit of the plant; removing any decayed leaves or weeds, and supporting the weaker sorts by carefully tying them to neat stakes; the more, however, that this can be dispensed with the better, for plants never look so well as when left to assume their natural habits.

PRISMATOCARPUS Herit.	VENUS L.-GLASS.	Campan.	Pentand.	Monogynia.
1 hybridus Herit.	hybrid	P. 5..8	1	England
2 pentagonus Herit.	five-angled	B.p 5..8	1	Turkey 1686
3 speculum D.	common	P. 5..8	1	S. Europe 1596
albo	white	W. 5..8	1	
pallido	pale	Li. 5..8	1	
purpureo	purple	d.P. 5..8	1	

This genus is named, in allusion to the form of the fruit, from the words *Prisma*, a prism, and *carpos*, fruit, and chiefly consists

of hardy annuals, formerly referred to *Campanula*; of these the most interesting is No. 5, which, with, its varieties, are old and well-known inhabitants of the flower-garden—esteemed alike for their neat habits of growth and profusion of bloom. The name of Venus Looking-glass is supposed to have been applied to this species from the resemblance, that its corolla bears to the ancient form of a mirror, which was round; whence the astrological sign of Venus was made to represent a round mirror with its handle. The whole succeed in rich light soil; and the seeds, which are small, should, when sown, be sparingly covered with earth.

RESEDA L. MIGNONETTE. *Resedaca. Dodecandria Trigynia.*
odorata L. sweet-scented St. 6..10 1. Egypt 1752

Derivation of generic name from the Latin *Resedo*, to calm or appease, the plant having been considered as efficacious in removing external bruises. The Mignonette is a well-known universal favourite, and occupies a prominent place in every flower-garden, where it is especially useful for growing under or amongst dahlias, and other showy flowers, which are either devoid of, or have a disagreeable smell. “The luxury of the garden says Mr. Curtis, (conductor of the *Botanical Magazine* bearing his name,) “is greatly heightened by the delightful odour which this little plant diffuses; and, as it grows readily in pots, its fragrance can be conveyed to the house.” Its perfume, though not so refreshing as the Sweet-briar, is not apt to offend the most delicate olfactories. The Mignonette is also universally esteemed for growing in boxes or flower-pots, particularly in town windows; and, although generally treated as an annual, yet, if protected from frost, and prevented from flowering too profusely by pinching off about one-half of the flower-spikes, it will attain the size and habits of a shrub, and last for many years. Seeds may be sown in April; either in a hot-house to force it, or in the open border, where it will flower freely and ripen its seeds, by which it will perpetuate itself without further care than is necessary to clear the young plants from weeds.

RHODANTHE Ld. RHODANTHE. *Composita. Syngenesia Æqualis.*
Manglesii Ld. Capt. Mangles Ro. 6..9 1 Swan Riv. 1834

This genus according to Dr. Hooker, seems to be nearly allied to *Podolepis*, but differs in the form of the involucre; and has its name given in allusion to the beautiful rosy color of its flowers. The only known species is a very handsome annual, possessing the brilliancy of the Cape *Helicherysum*, but without the stiffness and formality of that plant. It can be brought to flower in the green-house, at almost any season of the year, by sowing the seeds about two months previous. It also thrives out of doors; where, however, the delicacy of its form does not appear to such advantage as when grown under glass; it should be sparingly watered, have a free circulation of air, and be grown in moderately-sized pots, well drained, and supplied with rich light soil.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

CALLICHROA PLATYGLOSSA. Golden Callichroa. (Bot. Mag.

COMPOSITÆ. SYNGENESIA SUPERFLUA.

1. This is an annual plant of moderate beauty, quite hardy, and nearly allied to *Doronicum*. The flowers are yellow, with deeply cut foliage.

EPACRIS IMPRESSA var. **PARVIFLORA.** Small flowered pitted *Epacris*. (Bot. Reg.

EPACRIDACEÆ. PENTANDRIA MONOGYNIA.

2. As the name implies, this is a variety of *E. impressa*, sent to this country by Mr. James Backhouse, who has been engaged for some years travelling on a benevolent mission in New South Wales. It is now suspected that the genus *Epacris*, especially the species *Impressa*, and others nearly related to it, are merely varieties of each other. In speaking of *E. impressa*, Mr. Gunn, a high authority on this genus, says, "the colours vary from a deep red through all the paler shades of blush to pure white, so that colour constitutes no distinction; the size is also variable." He distinguishes four chief varieties, viz.—1. Red flowering, tall; 2. Red flowering dwarf; 3. White flowering, tall; 4. White flowering, dwarf; in addition to which, many others might be named.

COOPERIA PEDUNCULATA. Pedunculated. (Bot. Mag. 3727.

AMARYLLIDÆÆ. HEXANDRIA MONOGYNIA.

3. A native of Texas; flowers, white with a tinge of green on the outside, it blooms during the night, and has a peculiar primrose fragrance; it appears to require a stove temperature.

CALADIUM PETIOLATUM. Long Stalked. (Bot. Mag. 3728.

AROIDÆÆ. MONÆCIA MONANDRIA.

4. Tubers of this singular looking plant were sent to this country by Mr. Boaltee, Junr., from Fernando Po; the plant has bloomed in the collection of Joseph Boaltee, Esqr., Springfield, near Birmingham. The tubers are similar to the potatoe in appearance, but are poisonous. The spathe is of a dark purple colour, and inside of it is a black purple; the anthers are of a pretty cream color.

BLETIA PARKINSONIA. Mr. Parkinson's *Bletia*. (Bot. Mag. 3736.

ORCHIDACEÆÆ. GYNANDRIA, MONANDRIA.

5. Introduced from Mexico by H. M., consul general, Mr. Parkinson, after whom it has been named. It is a very singular and distinct kind producing flowers much narrower than any other, and of a pale rose colour with the column and lip shaded yellow and purple. It is cultivated at Woburn Abbey, where it blossomed for the first time in January last, the treatment applicable to other species will also apply to this.

CEROPEGIA VINCÆFOLIA. Periwinkle learned *Ceropegia*.

(Bot. Mag. 3740.)

ASCLEPIADEÆ. PENTANDRIA, DIGYNIA.

6. A very distinct species of this singular genus was introduced from Bombay to the Glasgow Botanic garden, by J. Nimmo, Esq., Bombay, in the stove at which place it bloomed in September, 1838. The flowers are greenish white spotted with deep brown, and the upper part of the segments wholly brown.

CYNOGLOSSUM CCELESTINUM. Blue and white Hounds-tongue.

(Bot. Reg. 36.)

BORAGINACEÆ. PENTANDRIA, MONOGYNIA.

7. A pretty hardy biennial introduced to the Horticultural Societies' garden by J. Nimmo, Esq., where it bloomed in August and September last. The flowers which are blue and white, are smaller than other species of this genus.

DENDROBIUM JENKENSII. Captain Jenkinson's *Dendrobium*.

(Bot. Reg. 37.)

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

8. This species bears resemblance to *D. aggregatum*, both in color and shape, but the flowers are larger. It was introduced into various collections in this country by Dr. Wallich, who received in 1836, from Captain Jenkins, of Gualpara, to whom we have dedicated it. Dr. Lindley observes, "it is more difficult to cultivate than those kinds with long free-growing stems; it is frequently seen in an unhealthy state owing to its being grown in a pot, and subjected to an uniform high degree of temperature. The best way to ensure its success, is, to tie it to a block of wood with a piece of turfy peat attached to it, and suspend it from the rafter of the house, there it must be well syringed at least twice a day, so long as it continues to grow, and afterwards it may be removed to a cooler house. In fact, it never requires so much heat as those species with long trailing stems."

EDWARDSIA MACNABIANA. Mr. Macnab's *Edwardsia*.

(Bot Mag. 3735.)

LEGUMINOSÆ. DECANDRIA, MONOGYNIA.

9. Sir William Hooker considers it probable that the present handsome species is a seedling variety of *E. grandiflora*, though it is at once distinguishable from the ordinary form of that species. Mr. Macnab of the Edinburgh Botanic garden, under whose directions it has been successfully grown for several years, confidentially believes it to be a distinct species; from whence it was introduced however is not known. The flowers, which are produced upon lateral racemes, are of a bright yellow. During the recent very severe winter, which effected so much ruin amongst our valuable shrubs; this beautiful plant survived much better than two or three other species about the same size and occupying similar parts of the wall; it has now a stem which measures upwards of eleven inches in circumference.

EPACRIS COCCINEUS. Scarlet-flowered *Epacris*.

(Pax. Mag. Bot.)

EPACRIDACEÆ. PENTANDRIA, MONOGYNIA.

10. A very beautiful variety raised from seed by Mr. Kynoch, gardener to Alderman Copeland, Leyton, Essex, in whose collection it bloomed during the early part of this year, and was subsequently purchased by Messrs. Low & Co., of Clapton.

PART III.

MISCELLANEOUS INTELLIGENCE.

REMARKS.

ON FUCHSIA FULGENS.—This very splendid flowering species has become an object of general observation and attraction, so much so, that it is to be found not only in every floral exhibition of greenhouse plants, but obtaining a prize at each. The demand for the plant this spring has been much greater than last year, and so much so that nurserymen could not meet the demand.

The plant certainly merits a place in every greenhouse, conservatory, plant room, and flower-garden. It is a plant of the most easy culture, vigorous habit, and a free bloomer; some difficulty however has been found to keep the old stems alive through the winter, but this arises from the circumstance of the wood of the previous season not being well ripened, as in most instances small plants could be procured and that late in the spring of 1838. But where a strong plant was obtained, and that grown in a greenhouse, &c. so as to get the wood well ripened, such plants we have invariably observed have retained their branches as well as other woody plants, and we have seen plants in bloom this spring four and five feet high, clothed with numerous clusters of fine flowers at the ends of the lateral branches. Plants that are grown in the open border of a flower garden will rarely ripen shoots so as to endure through winter, but will generally perish; but if the plant be treated as is done with the Dahlia, Marvel of Peru, &c., it will be found to flourish, and be a highly ornamental plant either for a bed, or grown on a lawn, border, &c., as a single specimen. When the plant has ceased blooming in autumn the root should be taken up, keeping some soil adhering to it, pot it, and keep it from frost through winter: early in February following, the root should be placed in heat, it will soon throw up a number of shoots, one or more should be left at discretion, striking those taken off; and such a plant by the end of May would be fine to turn out, as is done with dahlias. A full grown leaf taken off with the bud at its base, inserted in sand, and placed in moist heat, will speedily strike root. In fact the plant is very easy of propagation by slips, cuttings, leaves, or division of the tubers.

CONDUCTOR.

ON HYBRID PLANTS, &c.—A regret has sometimes been expressed at the production of hybrid plants, because they introduce a certain degree of confusion and difficulty into our technical descriptions and systematic arrangements. But surely the searcher after truth, the philosophical investigator of the works of nature, must greatly rejoice at every fresh and striking result (however embarrassing for the moment), which has been obtained by the judicious application of a direct experiment. The more our experiments are multiplied, and the more precautions we take in securing the accuracy of our results, the greater will be our chance of detecting those physiological laws which regulate the variations and restrictions of forms in different species. One remarkable result observable in the production of hybrid plants is, the uniform manner in which several of them refuse to perfect their seed; and if this character were constant in them all, we should possess an excellent law for distinguishing hybrids from true species. But it is now asserted that

many hybrids do perfect their seeds ; still an obvious question presents itself, whether we ought not always to consider the parents of such hybrids really to belong to the same species, however dissimilar they may be in external form, whilst the parents of those which do not perfect their seed should be considered distinct. The evidence which is hitherto been adduced militates strongly against the existence of any such law ; though we may hardly allow it to be sufficiently complete and definite to have completely settled the question. Besides, the existence of certain hybrids which never produce ripe seed, and of others which readily produce them, there are some which occasionally, but rarely, do so : and such we find to be the case with the present plants. Professor Henslow examined a great many, of its ovaries in the Bury Gardens, last summer, in all of which the ovules were abortive, and Mr. Hodson informed him at the time, that no perfect seeds had been produced ; but since then we have heard from Mr. Turner, (the Gardener in that establishment), that " a few good seeds" have been produced. We shall be anxious to learn whether plants have been raised from these, and if so, what are the forms which they assume. May we not ask whether those hybrids which refuse to perfect their seeds in one climate, and under the combination of circumstances to which they are now subjected in the present state of the earth's surface, might not in another climate, and under another combination of circumstances than that at present existing, be rendered productive, and thus be enabled to assume the character of true species. If so, fresh light may be thrown upon the remarkable fact with which geology has made us acquainted of a succession of perfectly distinct races of animals and vegetables at different epochs of the world's existence, each adapted to some peculiar condition of our planet. Such a succession of differences seems to require us to admit that there must either have been a fresh creation, or else such a marked transition between the forms of existing species and those of their offspring, that we are unable to recognise them any longer as specifically identical. These speculations are fraught with the deepest interest ; they serve to impress us with some notions of the infinite distance at which the human understanding lays behind the preceptions of the Divine wisdom, and to humble any petty conceit that we might be inclined to entertain of our own limited powers. If there is a certain difficulty, even in preparing a mere technical description of the works of creation, as they may be seen and handled by us, how much greater must be those difficulties which we have to surmount, when we seek to inquire into those laws by which the past has been altered into the present state of things ; and to trace the means by which organic beings have been framed, altered, and adapted to the several changes to which the earth has been exposed. Here we are trenching upon those paths of wisdom which possibly we shall never in this life be able to penetrate to any great extent ; and of which we must remain content to believe that " God alone understandeth the way thereof, and he knoweth the place thereof, for he looketh to the ends of the earth, and seeth under the whole heavens." Job, 28th chap. 23d verse.

NEW AND RARE PLANTS,

Recently noticed at various Nurseries and Floral Exhibitions.

(Continued from page 168.)

ECHIUM GRANDIFLORUM. A fine plant having three spikes of its fine blue and purple flowers about five feet high.

GENISTA FRAGRANS. A very pretty plant for the greenhouse, in addition to the flowers being fragrant, they are produced in vast profusion and of a lively yellow colour. The plant forms a very neat bush, and may be kept from two to six feet high as desired.

HYDRANGEAS. Mr. Mills, gardener to the Baroness Rothchild, exhibited six plants of the *Hydrangea hortensis*, with fine rose colored blossoms, each head of flowers being more than a foot in diameter, and six plants with equally large heads of flowers of a fine blue color. They had been grown to great perfection by Mr. Mills, and the contrast produced, was very striking and pretty. We hope Mr. Mills will favor us with his mode of treatment for insertion in the 'Cabinet.'

ERICAS. The best collection of eight plants of *Erica* consisted of the following kinds. *Erica vestita alba*, *Harlneckii*, *splendens*, *aristata major*, *Ampullacea superba*, *Wilmoreaana*, *Beaumontiana*, *Linnæoides superba*.

DAVIESIA SALIGNA. A very pretty greenhouse plant, blooming profusely; the flowers are of a pretty yellow, with a small dark centre; very much like an *Eutaxia*.

CACTI.—This remarkable division of the vegetable kingdom, which like the Tropical *Orchidaceæ*, has been so long neglected in this country, is now commencing to assume the rank and importance in our collections, to which the originality and singularity as well as beauty of its members, fully entitle it. A few of the *Cereus* and *Epiphyllum* tribes, which are remarkable for the brilliant flowers which they produce, have long been general favorites; but we are alluding now to to Sections, *Mammillaria*, *Melocactus*, *Echencactus*, and a large portion of the Section *Cereus*, which are distinguished rather for their peculiar shape, and the varied colour and position of the spines with which they are clothed, than for the beauty of their flowers. We recently saw a large importation of these interesting plants, which had been received at the Clapton Nursery, from one of the collectors of that establishment, stationed in South America. The collections consists chiefly, with the exception of a large quantity of *Melocactus communis*, and *pyramidalis*, of *Cereus*, among which are several which it is supposed are new to the country. We particularly noticed several plants of a strong erect *Cereus*, most densely clothed with long, compressed, and brilliantly white spines. Some of the plants were from four to five feet long, and apparently in most excellent condition. But the most interesting species in the importation appeared to be a *Cereus*, which is likely to prove a rather formidable rival to the justly admired *C. senilis*. The specimen we saw, was about ten inches long, of a clear light green, with yellow spines, and clothed from the base to the summit with a substance resembling the finest wool, and of the purest white. The contrast between the vivid green and yellow, covered as it were with a delicate net work of pure white, is remarkably pleasing. We believe this specimen to be perfectly unique. We lately saw the fine collection of Messrs. Mackie's, at the Norwich Nursery, which very far exceeds all other collections that has come under our notice, both as to the number of kinds, and in superior specimens. Persons fond of this singular tribe, would be highly delighted with a sight of the stock at Messrs. Mackie's.

REFERENCE TO PLATE.

DIPLACUS PUNICEUS. We were so struck with this very ornamental plant, that we purchased a stock of it some time since; it has the habit of the old and generally well known *Mimulus glutinosus*. The plant is a very free grower, and blooms profusely, it has been kept in the greenhouse since its introduction, but is now found to be nearly hardy, and in the open ground during summer is highly ornamental. It deserves a place in every greenhouse, or flower-border. The plant, like *M. glutinosus*, continues to bloom from May to November.

ISOTROPSIS STRIATUS. This very pretty flowering plant we saw in the greenhouse at the London Horticultural Societies' garden; it is of prostrate habit, but is conveniently tied up, or trained, so as in each instance to be neat. The plant appears to bloom freely, the flowers are produced singly

on a footstalk about three inches long; if the stems were tied up erect, the flowers would be brought near together, and thus congregated would be very showy. It is a desirable plant for the greenhouse—we believe it was introduced from the Swan River, by Captain Mangles.

THUNBERGIA HAWTONIA. A fine plant of this new kind of *Thunbergia* was recently exhibited in bloom at the rooms of the London Horticultural Society by Mr. Butcher, gardener to Mrs. Lawrence, of Drayton Green. The plant is of vigorous habit, and to bloom freely. We understood it had been grown in the greenhouse, if so, its vigorous habit indicates it would flourish well in the open border, or against a trellis during the summer season. It is a very desirable plant, deserving a place in every collection.

ROSA MACULATA. We procured some roses from Messrs. Wood, & Son, of Woodlands Nursery, Maresfield, Sussex selected by them, amongst which was the kind we have figured, and which has recently bloomed. It is a very beautiful kind and deserves a place in every flower-border or rosary.

GOMPHOLOBIUM POLYMRPHUM. A greenhouse plant of considerable attractions. It is of a very neat, slender, and twining habit, rising to two or three feet high, and blooming very profusely; we saw a plant of it in fine bloom at the Floral exhibition recently held at Bromley, Kent; it was exhibited by Mr. Barnes, gardener to G. Norman, Esq., and had been neatly trained in the fan manner, so as wholly to cover the same to the height of about half a yard, and it was strikingly pretty. We saw a plant tied up erect about two feet high, its flowers thus brought in a mass together, and forming a spike of some length, produced a most beautiful effect. So much pleased were we with it, though very scarce, as to purchase a stock of it. The plant deserves a place in every greenhouse or conservatory.

THUNBERGIA AURANTIA. This very pretty kind we found in the collection of Mr. Young, of the Epsom Nursery; it has the habit of the generally admired *T. alata*, flowers equally freely, and as easily cultivated; the flowers being of a fine deep and red orange have a beautiful appearance. Grown in contrast with the other kinds, it will give an interesting effect; it deserves a place in every greenhouse and in every flower-garden during summer.

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 Saxrifrage. 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 Polyanthuses, 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 are 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 out in June. Sow seeds of all kinds of bulbous rooted plants in pans or boxes, such as Spring Cyclamen, Anemones, Ranunculuses, &c., &c. Those kinds 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 Lillies 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 hulbs 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.

Sept 15 1884



Epacris coccinea.



Tompholobium versicolor.



Tweedia caerulea.



THE
FLORICULTURAL CABINET,

SEPTEMBER 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

OBSERVATIONS UPON THE VEGETATION OF FUNGI.

BY F. B. S. E.

IN consequence of the communication of Cryptos in a late No., I have been induced to prepare the present paper, from the desire that the doctrine so pernicious in its tendency as the one advocated in it, should not go forth among your readers, without such proof of its fallacy, and meet refutation of the inference drawn from him by the adduced fact as should remove the impression in favour of the theory therein raised. I would observe, however, that I entirely acquit Cryptos of any error other than that of having deduced a wrong inference from an isolated fact; at the same time I would ask him to consider with what jealousy the phenomena of any fact appearing to countenance such a doctrine should be examined before we allow ourselves to be convinced that our inference is true, not only as it relates to the philosophical question of *fact* is the subject of equivocal generation of importance, but also as its assertion involves the Atheistical doctrine of Materialism in its consequences; for in admitting it we must take up one or two positions, either we must consider that the work of creation is yet incomplete, and that each individual plant (we are more immediately concerned about the Fungi, I shall therefore avoid all reference to Zoology, though the same arguments hold,) is the effect of a special act of His hand, or that each is, as the supporters of the theory define it, a mere fortuitous developement of vegetable matter. Few will

maintain the former position, unsupported as it is by evidence, and unwarranted by Scripture, and it will not be worth while to take further notice of it. The *à priori* argument made out against the latter is such as no evidence can surmount, for the alternative is infidelity.

Many of the German theorists comprehend all plants, Phanerogamous as well as Cryptogamous, as being the offspring of equivocal generation, but as no one among us is very likely to take up this ground, I may be allowed to assume the contrary, as respects the Phanerogamæ as matter of fact. This being admitted, gives us the argument of analogy in favour of Fungi being propagated always by their sporules. Of those who apply the theory alone to the Cryptogamæ, the following are the principal arguments against the analogy, or in other words, against the vegetability of Fungi.

1. They grow with a degree of rapidity unknown in other plants, acquiring the volume of many inches in the space of a night.

2. They are frequently *meteoric*, i. e., spring up after storms, or only in particular states of the atmosphere.

3. It is possible to obtain particular species with certainty by an ascertained mixture of organic and inorganic matter in certain states of the atmosphere, as in the process adopted by gardeners for obtaining the *Agaricus campestris*, a process so certain that no other kind of *Agaricus* is ever produced in mushroom-beds.

4. "Fungi are produced constantly upon the same kind of matter and upon nothing else, as the species that are parasitic on leaves, cheese, &c." (*Lind. Nat. Syst.*)

5. They often occur in places impenetrable to the atmosphere, as in the case instanced by *Cryptos*.

The first of these arguments will be at once allowed to be of little weight, depending as it does upon a comparative character; for if Fungi be excluded from the vegetable kingdom because they grow faster than gourds; on the same principle the latter ought also to be excluded, as growing faster than many other plants.

The 2nd, 3rd, and 4th, are immediately connected with one-another, and a single answer will comprehend all.

Nature acts according to certain fixed laws; according to these laws a certain effect will always result from the coincidence of certain conditions, these conditions not coinciding, that effect will

not take place. Thus, for example, the germinations of seeds will not commence until the concurrence of such quantities of water, oxygen, and heat as are necessary to fulfil the conditions requisite to their growth, but immediately the conditions are fulfilled germination takes place, as a matter of necessity. The seed has no option whether or not it will grow, but grow it must when the conditions are satisfied; similarly with the sporules of Fungi, until the requisite conditions are fulfilled they do not grow, but immediately on their fulfilment, they must grow, and do grow. This then will explain why certain Fungi are *meteoric*; at a particular state of the atmosphere only are the requisite conditions to the growth of their sporules fulfilled, till then they lie dormant.

The 3rd objection merely shews that the conditions of growth of the sporules of *Agaricus campestris* are ascertained to be fulfilled when a certain mixture of organic and inorganic matter is exposed to certain states of the atmosphere, and that other Fungi do not grow too, simply proves that their growth depends upon different conditions from those on which the growth of *Agaricus campestris* does. That certain Fungi are produced but upon one kind of matter proves that there are, and there only are the conditions of growth of those Fungi satisfied; and that they are produced constantly shews the infinite number of sporules there must be distributed over the face of the earth. Fries has counted in a single individual of one small Fungus above 10,000,000 sporules! In some general observations on their number, he says, "the sporules are so infinite, so subtle (they are scarcely visible to the naked eye, and often resemble thin smoke,) so light, (raised perhaps by evaporation into the atmosphere,) and are dispersed in so many ways by the attraction of the sun, by insects, wind, elasticity, adhesion, &c., that it is difficult to conceive a place from which they can be excluded." (*Fries, Eleveh.*, 158.)

The sporules of an hundred different sorts of Fungi may be mixed in the matter of which the mushroom bed is made, or on the leaves, or in the cheese, but those only will vegetate whose conditions of growth are satisfied, which are different in each case. We have exactly parallel instances in Phœnogamous plants, where certain plants will grow only on certain soils, as on chalk, or in water, we have no difficulty in believing this, because we can put it to the test of experiment. We see certain Fungi confined to certain substances, and yet we refuse to admit the

analogy, merely because we are not able to prove the fact in the same way. This is surely most unphilosophical, not to say false reasoning.

I have now to notice the last argument which is more immediately of interest, as involving the objection and fact mentioned by Cryptos. The general argument is no argument at all, for first it presupposes a fact, which the investigations of the most accurate observers go to disprove, namely, that the sporules can reach no place impervious to the atmosphere; and secondly, it implies that because we do not know how the sporules get to any such place, they are therefore not there; hence the inference drawn from the particular fact is not *a priori*, necessarily a true one; and to show that it is probably a false one, merely requires that a reasonable explanation warranted by the observations of botanists should be given of it, such an explanation Cryptos himself supplies. The Fungus was found in the core of the apple, with which there was, in the earlier state of the fruit, a direct communication from the exterior; and not only a passage, but there were pollen tubes passing through it to the centre of the germen, which we have no reason for supposing could not have been accompanied by the sporules of the Fungus. If the pollen tubes were provided with a contrivance for finding their way inwards, why should not the sporules of the Fungus be provided with a similar one? Or do we know that the sporules might not have attached themselves to the substance of the pollen grains? We might as well assert the impossibility of travelling from York to London, although there is a direct road, not to mention the vehicles continually traversing it! That the explanation does not appear plausible is no proof of its being erroneous. It is conformable with other observed facts, and therefore not to be at once rejected merely for lack of plausibility; the degree of plausibility being a matter of opinion, and dependant much on the knowledge of the subject possessed by the observer. Who would suppose that the earth moves round the sun? surely that fact has little enough plausibility on the face of it! But even should this explanation be rejected, there is yet another which will sufficiently account for the fact, from the recent observations of Bauer, in Germany, and of Messrs. Queckett and Smith among us, it appears more than probable that Fungi are propagated on other plants by their sporules being imbibed along with water by the spongioles of the root, which on further developement of the

plant are carried up by the ascending sap into the leaves and flowers, where they expand into perfect Fungi.

To enter upon the argument against the theory is not my intention at present, as it would occupy more room than you, or time than I have to spare: but it seems to me an almost conclusive *primâ facie* objection to it, that it is so directly opposed to the general scheme and simplicity of nature. We know also that Fungi are to be propagated by their sporules, for we can raise them from them, and to suppose that they can be formed fortuitously with a prospective contrivance for their future propagation in themselves, is, either to deny that contrivance proves design, and the existence of design that of a designer, or to throw us back upon the former alternative of equivocal generation, as given in the beginning of the article.

I have, though shortly, I hope satisfactorily shown how little the above theory has to support it. I shall not trespass further on your space than to copy a paragraph from the opinion of one of the first mycologists of the age, of one equally excellent as a man, and as a botanist, the Rev. M. J. Berkeley.

“It is not to be denied that difficulties about the appearance of Fungi, as of various other plants and animals, are often great; but it seems to me rash and precipitate in the extreme, because of a few points which at present baffle our powers of investigation, to have recourse to a principle which its supporters, at least as many as are of an humble and submissive frame of mind, dare not follow out into all its consequences. For my own part I can affirm, without hesitation, that I have never read a single essay of these writers without being struck with the utter inconclusiveness of their reasonings, and with their strange oversight of points, which make against them so plainly and palpably that the most ordinary and unprejudiced reader could not fail to seize them.”
(*Berkeley in Hook. Br. H. II. 2. 7.**)

I cannot refrain from another admirable quotation from an equally distinguished botanist—

“Let us not be led astray by specious theories and imaginary facts concerning bodies so far beyond the cognizance of our senses; but in the absence of demonstrative evidence to the contrary, let us believe the great Author of Nature to be consistent with himself in all his works, and to have taken care to enable the most humble seaweed to be multiplied by some means as certain and unchangeable as is provided for the most stately lord

of the forest. We may rest assured, for all philosophy, and all observation, and all reason prove it, that there is no such thing in nature as blind chance ; but that all things have been carefully and wisely designed with reference to the particular circumstances under which they exist." (*Lindley in U. K. Society's Botany*, p. 119.)

In addition to the above works, I would refer Cryptos to the latter author's, *Nat. Syst.* p. 420, in which, as well as in the above quoted works, he will, I think, find sufficient information to convince any reasonable man.

July 10th, 1839.

F. B. S. E.

ARTICLE II.

ON TRAINING ROSES, AND OTHER CLIMBING PLANTS, IN THE FLOWER GARDEN.

BY A NOBLEMAN'S FLOWER GARDENER.

OF the numerous forms and modes of growth which plants exhibit, the climbing or twining habit would seem to be the most graceful and interesting. As man is accustomed to regard more tenderly and fervently such objects as depend upon, or, as it were, cling to him for protection and support ; so, in the vegetable world, those plants appear to excite the greatest interest which require the assistance of their more robust neighbours to maintain them in their needful position, and uphold them from grovelling prostration. There is however a general gracefulness and beauty in the plants of this class and I have always observed that climbing plants are acknowledged favourites with persons of refined taste and sensitive minds.

Their sprightly and elegant disposition, the enchanting irregularity and negligence with which their branches are arranged and entangled, and the beautiful manner in which the extremities of these protrude so as best to exhibit their varied blossoms, each contribute to heighten their attractions. I now allude chiefly to their appearance in a natural state, for when subjected to the operations of training and pruning, it deprives them of much of that pleasing simplicity which otherwise characterizes them.

It is to be regretted that many kinds of vigorous growing plants are trained to walls and trellises which ought not to be substituted for that which nature teaches us is the most graceful and ornament-

al with them, and by far the best adapted to the purpose of displaying their peculiar habits and beauties by supporting them by poles. There are others of a more delicate habit which look more ornamental, and exhibit their blossoms more to view, such as the delicate *Tropæolums*, &c. The natural habit of every plant ought to be allowed if to have it in perfection, only to accommodate it so as to be kept in those bounds which other circumstances point out necessary.

The natural habitats of all our climbing plants I cannot describe, but most of the readers of the Cabinet have witnessed the common honeysuckle twining closely around the stems of trees and often interweaving its slender branches with those of the tree to which it clings for support. Those plants which have not the advantage of trees will attach themselves to the nearest shrub, and there exhibit their beautiful flowers among the branches, or if not thus privileged will trail along the ground. So far as their general mode of growth is concerned, this may be considered a fair type of most climbing plants; all are incapable of supporting themselves in an erect position, and consequently, are not frequently met with, except where trees or shrubs exist or abound.

These circumstances very naturally suggest the idea of encouraging them to ascend poles when in a state of cultivation. And though it might be supposed that similar plants require a shaded situation: this is not always the case, at least with those from temperate climates. For although found growing naturally beneath the shade of trees and shrubs, they are always seen struggling to obtain an exposure, and either protrude their shoots through the opening branches or rise above the summits of their supporters.

Climbing plants of the honeysuckle tribe are best adapted for planting at the base of small trees in a conspicuous place in the shrubbery, and to these they may be allowed to attach themselves; or, if necessary, can be secured erect till they have embraced them sufficiently to render further attention needless. It is particularly advisable to permit them to commence twining themselves; as many of them grow in a peculiar direction, which, if altered, would considerably retard their progress and detract from their beauty. No just conception can be formed of the great additional charms they would impart to the shrubbery; for when they had become firmly established, and had grown to their natural size, the trees or shrubs would be seen covered with an extensive

variety of showy flowers, and present an appearance at once beautiful and interesting. The usual sheltered situation of shrubberies or the protection which the shrubs themselves would afford, render it probable that many half-hardy climbers too might be grown within their boundary, provided the mode of growth were congenial to their habits; and even with no other variety than the hardy species of *Clematis* &c. presents, these departments might be converted into decided and lasting attractions.

There is another description of climbing plants, however, which from their natural disposition to branch, or in which such a tendency may be readily induced by pruning, possess peculiar adaptations for training to detached poles; and it is to these species, and the mode of supporting them, that I am desirous more especially to call attention. No person, but who has seen this system successfully practised, can possibly have any idea of the effect which a pillar of roses, or similar plants produces, when all their branches are bending to the earth, as it were, beneath the weight of the multitudes of flowers with which they are laden. And when poles are placed at a convenient distance apart so as to have festooned cords to which the shoots are trained, the pendant shoots in profuse bloom, give to the uprights an additional interest.

Their appearance, whether in the flower bed, around a flower garden, in the lawn, or whether arranged opposite each other on either side of a portico, an entrance, or a walk, or disposed solitarily and irregularly over any part of the pleasure-ground, is most interesting. Roses thus treated have all the concentrated beauty of the head of a standard elongated into a pillar, without any of the formality of its summit, or the bareness of its stem. When growing climbing roses to poles &c, it is necessary that a situation be chosen for planting them where they will be slightly sheltered from winds; but at the same time not to screen them from the full influences of the sun, otherwise their shoots will be very liable to suffer from cold during the winter, on account of not being thoroughly matured. A strong loamy soil is the best for growing them in, so as to flourish luxuriantly.

Poles of the requisite size and strength may be easily procured from the thinnings of larch plantations, and they will stand for many years without renewal. It is best to leave some of the branches about six inches long, as they will prevent the wind twisting the shoots around the pole so as to damage them. The bark should not be removed, both for durability and appearance,

it is far preferable to allow it to remain. Care should be taken to apportion the length and strength of the poles to the estimated height of the plant, for they will look exceedingly clumsy and unsightly if too large or too long, and the habit of the plant should be known. Pruning, when necessary, must be performed with judgment. Many kinds of climbing roses will not bear much pruning, while others may be subjected to it to a considerable extent. Those kinds with weak and flexible shoots, may be left to hang down naturally after they have attained the desired height, thinning them only when they are too numerous; but such as are stronger and more luxuriant occasionally need shortening, to prevent them from growing too spreading. Some of the hardy Passion Flowers, *Glycine sinensis*, Bignonias, &c. are most interesting when trained as above and make a splendid display when attached to a pole, they require to be freely pruned, as it is by close pruning that they can be induced to flower freely.

In villa gardens, and those attached to the numerous suburban residences of gentlemen, in the humble plot of the cottager, or the extensive demesne of the nobleman, climbing roses might be introduced with great advantage and I hope this commendable and interesting practice will soon be extensively adopted. I shall forward for September Cabinet a list of the best kinds of climbers in cultivation.

Middlesex, July 3rd, 1839.

ARTICLE III.

ON THE INTEREST AND PLEASURE OF CULTIVATING FLOWERS.

BY FLORA.

Floriculture, or the cultivation of flowers, is far the most delightful branch of gardening. It is true that flowers are not essentially requisite for man's existence; but still they were evidently given to us by the Giver of all good for some peculiar purpose, which purpose is very clear to any unprejudiced mind that will give the subject a few moment's consideration.

They were given, if not to minister to man's actual wants, to minister to his delight, which they do in a very great degree by beautifying the earth.

When I state that the cultivation of flowers is productive of interest and amusement, I must observe that there are several

kinds of amusement. Some are irreligious, or, at best, immoral, and many are debasing ; but that which is derived from floriculture and botany (which is so nearly allied to floriculture that I must be pardoned for joining them together), is not only a rational amusement, but is replete with instruction. To the reflective mind, the curious structure, the habits, the modes of culture, and the distribution of flowers over the surface of the whole earth ; their spontaneous growth on the tops of mountains, in the vallies, in the sandy and sun-scorched desert, and on the rugged rock, must be full of interest. I would ask, is it not pleasing to watch the growth of some handsome plant, from the time it just peeps above the soil, till it arrives at full maturity ; and would not its beautifully colored and elegantly formed flowers amply repay you for all your trouble ? Again, what can afford a more interesting recreation to the person engaged in mercantile pursuits, and shut up in a counting house or manufactory the greater part of the day, than an half hour spent in a pleasant flower garden ? and to those who have not a garden, a few plants in pots in the windows of their house are exceedingly pretty and interesting.

I think no person will deny that floriculture is a healthy pursuit. To the person in a robust state of health, who wishes to preserve it, nothing can be more subservient to his purpose than exercise in a garden ; and the invalid can certainly do nothing more likely to amend his health than take gentle exercise in a flower-garden ; such, for instance, as tying up Dahlias, Fuchsias, or Roses, watering them, &c. It may be asked, why give the preference to floriculture, when general gardening would be equally beneficial ? I would answer, because the attractions held forth by flowers are generally so much greater than any other species of plant, and of longer duration.

The study and culture of flowers is instructive. Who can look upon a flower, examine its curious construction, and notice minutely its various parts, without being filled with admiration, and being convinced that " it is the Lord's doing, and it is marvellous in our eyes. The study of flowers ought to impress every one with a sense of thankfulness to the Deity. We are told that " Solomon in all his glory was not arrayed like one of these, " and yet they were not sent for man's actual wants, but simply to render his sojourn here more delightful than it otherwise would have been.

Middlesex, 1839.

ARTICLE IV.

ON THE CULTIVATION OF ERICAS.

(Continued from page 178.)

If there be no appearance of a change, then it is necessary to apply heat to the house ; but all that is wanted in this case, is just enough to prevent the temperature from getting lower than it was when the heat was introduced. Suppose the thermometer to sink to eighteen or twenty degrees below freezing during the night ; the instrument inside should range as near as possible to what it was when the heat was applied. This however requires very particular attention. From what I know, heaths will suffer, if, after the thermometer has fallen four or five degrees below freezing inside of the house, heat be added so as to raise the temperature, and drive out the frost, during the time the thermometer is still sinking out of doors. It would be much better if the house were left without fire heat, even with the thermometer fifteen or sixteen degrees below freezing point out of doors ; such treatment is bad for all plants, but more particularly for heaths. If we were certain that the thermometer during the night would not sink more than ten or twelve degrees below freezing out of doors, no artificial heat whatever would be necessary in the heath house."

I have made this long quotation, because it is the tried practice of one of the best cultivators of the present day ; and if acted upon, will remove much of the cultivator's anxiety, so far as the true principle of applying artificial heat is concerned, and convince him how small a degree of that element is really necessary, in greenhouses of the ordinary descriptions.

During winter, water should be very sparingly applied to heaths and in times of severe frost only enough should be given to keep the plants from drooping. The case is different however, during spring and summer, when they should have it abundantly supplied once, and, in some cases, twice a day, at their roots, and two or three times during the week over their leaves and branches by using the syringe or small garden engine.

Cape heaths are very liable to be attacked by mildew, particularly in the neighbourhood of London : and some collections have been nearly destroyed from this cause. Sulphur, applied either in a dry or moist state, is the most effectual cure, and should be

applied upon the very first appearance of the disease, by dusting the plants all over with the dry flour of sulphur, or by making up a thick lather of sulphur, mixed with soap, and laid on the plants with a painter's brush. It is difficult to trace the real cause of this disease ; some attribute it to the practice of exposing them during summer to the power of the mid-day sun ; others, to the excess of water given them towards autumn ; while many think it is an atmospheric disease, and that some situations are more liable to its effects than others. It is said to be of a rare occurrence in Scotland, owing, probably, to the summers being cooler there than in England. Whatever may be the cause, the effect is in general fatal, for heaths, once attacked by the disease seldom recover.

It is said that "the best preventive is placing the plants during summer, behind a wall, hedge, or other shelter ; so that they may be shaded from the rays of the sun five or six hours in the hottest part of the day, without having recourse to awnings of any kind ; likewise, to house them early in autumn, in houses where the sashes can be drawn off in fine weather, and put on to protect them from heavy rains. For the more delicate species, generally kept in pits and frames in summer, the best preventive is to use lights glazed with green glass, keeping the lights on from nine o'clock in the morning till six o'clock in the evening, and giving plenty of air, by tilting the lights up at the back of the pits and frames, but never to use shading of any description. The lights to be drawn entirely off during the night, except in rainy weather. With this mode of treatment, slight waterings over head occasionally are beneficial."

Heaths are not very subject to the attacks of insects ; the green fly, however, sometimes assails them, but these are readily got rid of by slight fumigations of tobacco.

General Treatment Out of Doors.—A want of sufficient accommodation induces many to place a part if not all their heaths, as well as other greenhouse plants, out of doors ; and habit, we believe induces many more. The hardier and more free-growing kinds may not suffer much from this practice, but the finer and more delicate sorts evidently do. I believe the rationale of turning exotic plants into the open air, is to adopt the least of two evils ; for if they be kept under glass during the growing season, and closely crowded together, they suffer as much for want of fresh air as they would do if placed in a sheltered situation in the open

garden. It would be the most prudent method to adopt, to take out only such as are hardy and robust, leaving the more rare and tender sorts under cover ; in which they will then have plenty of room.

The season for taking heaths out of the house commences about the end of April, when some of the hardiest kinds may be set out : the next hardier section in May, and the next in June, retaining by all means the most tender of all in the house. A dry, sheltered, but not shaded situation should, if possible, be chosen for them,—dry, to protect them from a damp and impure atmosphere,—sheltered, to prevent them from being broken or upset by the wind, and shaded only to the extent necessary to secure them from the full force of the sun's rays during the heat of the day. A somewhat elevated platform, covered with coal ashes, should be formed for them, upon which they should stand, without being plunged. If the spaces between the pots were filled with sphagnum, hypnum, or other mosses, the whole might be made ornamental and extremely useful ; first, by hiding the pots, and, secondly, by preventing the heat of the sun, which is very injurious, from acting upon the roots, which are extremely fine, delicate, and always placed round the extremity of the balls, and in close contact with the pot. To avoid this, to save labour in watering, and to prevent them from being blown down, some recommend plunging them in the ground, or in the coal ash floor prepared for them ; but this latter practice is, we think, objectionable, as the roots are very liable to perish from cold and excess of humidity. Lines of cord should be stretched along the plant ground, and fastened to neat poles or stakes ; to these cords the plants should be individually fixed, to prevent their being blown down

From the end of September till the beginning of November is the proper season for removing plants again into the house, and a somewhat similar system should be acted upon as recommended for taking them out ; only, those last taken out should be first taken into the house, and the next in rotation. During summer, water should be copiously supplied, not only at their roots, but occasionally over their leaves and branches, by using the syringe or garden engine. But this must only be understood to apply to very hot and dry weather. Heaths, and all plants grown in peat earth, should never be allowed to become very dry at the root ; for, from the nature of the soil, it is difficult to supply a sufficient degree of moisture to them after they have become very dry.

(To be continued.)

ARTICLE V.

ON CHINESE GARDENS.

(Continued from page 183.)

Both in their lakes and rivers are seen many kinds of reeds, and other aquatic plants and flowers ; serving for ornament, as well as for covert to their birds. They erect upon them mills and other hydraulic machines, wherever the situation will permit. They introduce a great many splendid vessels, built after the manner of all nations ; and keep in them all kinds of curious and beautiful water-fowl, collected from different countries.

Nor are they less various and magnificent in their bridges than in their other decorations. Some they build of wood, and compose them of rough planks, laid in a rustic manner upon large roots of trees ; some are made of many trunks of trees, thrown rudely over the stream ; and fenced with decayed branches, intertwined with the convolvulus, and climbers of different sorts ; some are composed of vast arches of carpentry, artfully and neatly framed together. They have also bridges of stone and marble, adorned with colonades, triumphal arches, towers, loggias, fishing pavilions, statues, bas-reliefs, brazen tripods, and porcelain vases. Some of them are upon a curve, or a serpentine plan : others branching out into various directions : others straight, and some at the conflux of rivers or canals, are made triangular, quadrilateral or circular, as the situation requires ; with pavilions at their angles, and basons of water in their centers, adorned with Jets d'eau, and fountains of many sorts.

Of these bridges some are entire, and executed with the utmost neatness and taste ; others seem in ruins ; others are left half finished, being surrounded with scaffolds, machines, and the whole apparatus of building.

It is natural for the reader to imagine, that all these bridges, with the pavilions, temples, palaces, and other structures, which have been occasionally described in the course of this work, and which are so abundantly scattered over the Chinese Gardens, should entirely divest them of a rural character, and give them rather the appearance of splendid cities, than scenes of cultivated vegetation. But such is the judgment with which the Chinese Artists situate their structures, that they enrich and beautify particular prospects, without any detriment to the general aspect of the whole composition, in which Nature almost always appears predominant ; for though their Gardens are full of buildings, and

other works of art, yet are there many points from which none of them appear ; and more than two or three at a time are seldom discovered ; so artfully are they concealed in valleys, behind rocks and mountains, or amongst woods and thickets.

There are, however, for variety's sake, in most of the Chinese Gardens, particular places, consecrated to scenes of an extraneous nature ; from whence all, or the greatest part of the buildings are collected into one view, rising above each other in amphitheatrical order, spreading out to a considerable extent ; and, by their whimsical combinations, exhibiting the most magnificent confusion imaginable. Their artists knowing how powerfully contrast agitates the human mind, lose no opportunity of practising sudden transitions, or of displaying strong oppositions, as well in the nature of the objects which enter into their composition, as in their modifications. Thus they conduct you from limited prospects to extensive views : from places of horror to scenes of delight ; from lakes and rivers to woods and lawns ; and from the simplest arrangements of nature, to the most complicated productions of art. To dull and gloomy colours, they oppose such as are brilliant ; and to light, they oppose darkness : rendering, by these means, their productions not only distinct in the parts, but also uncommonly striking in their total effect.

The cascades of the Chinese, which are always introduced, where the ground admits, and where the supply of water is sufficient, are sometimes regular, like those of Marli, Frescati and Tivoli ; but more frequently they are rude, like the falls of Trohetta and the Nile. In one place, a whole river is precipitated from the summit of the mountain, into the valleys beneath ; where it foams and whirls amongst the rocks, till it falls down other precipices, and buries itself in the gloom of impenetrable forests ; in another place, the waters burst out with violence from many parts, spouting a great number of cascades, in different directions ; which, through various impediments, at last unite, and form one vast expanse of water. Sometimes the view of the cascade, is in a great measure intercepted by the branches which hang over it ; or its passage is obstructed by trees, and heaps of enormous stones, that seem to have been brought down by the fury of the torrent : and frequently rough wooden bridges are thrown from one rock to another, over the steepest parts of the cataract ; narrow winding paths are carried along the edges of the precipices ; and mills and huts are suspended over the waters ; the seeming dangerous situation of which, adds to the horror of the scene.

They have likewise cascades, contrived to fall from precipices, in large regular sheets, smooth as glass, and forming arches, that leave a considerable space between the rocks and the water. This is laid out in fine pebble walks, adorned with grass plots, and borders of flowers of every sort, that thrive in moist situations : and in the upright of the rocks are hollowed grottos, with many little neat recesses, placed at different heights, and communicating with each other by steps or passages cut in the solid stone, from whence the cascades, when illumined by the sun, appear like a multitude of rainbows, glittering with a thousand colours ; and the adjacent trees, buildings or other objects, seen through the brilliant medium, have a very uncommon, picturesque effect.

As the Chinese are so very fond of water, their Gardeners endeavour to obtain it by art, wherever it is denied by Nature. For this purpose, they have many ingenious inventions to collect ; and many machines, of simple construction, which raise it to almost any level : at a trifling expense. They use the same method for overflowing vallies, that is practised in Europe ; by forming heads of earth or masonry at their extremities ; where the soil is too porous to hold water, they clay the bottom, in the same manner that we do to make it tight : and in order to prevent the inconveniences arising from stagnant waters, they always contrive a considerable discharge to procure motion, even where the supply is scanty ; which is done by conveying the discharged water back, through subterraneous drains, into reservoirs ; whence it is again raised into the lake or river. They always give a considerable depth to their waters, at least five or six feet, to prevent the rising of scum, and the floating of weeds upon the surface ; and they are always provided with swans, or such other birds as feed on weeds, to keep them under.

In overflowing their grounds, and also in draining them, they take all possible care not to kill many of their old trees, either by over moistening their roots, or draining them too much ; saying, that the loss of a fine old plant is irreparable ; that it impairs the beauty of the adjacent plantations : and often likewise destroys the effect of the scenery, from many distant points of view ; and in shaping their grounds, they are, for the same reason, equally cautious with regard to the old plantations ; carefully observing never to bury the stems, nor to expose the roots of any trees which they mean to preserve.

(To be Continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

1. *LOELIA AUTUMNALIS*. Autumnal flowering *Loelia*.
(Pax. Mag. Bot. & Bateman's Orchid. 9.
ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A very beautiful species introduced from Mexico in 1836; where it was found growing upon trees at a considerable elevation. The flowers are of a lovely transparent pink colour, and are produced in spikes of from one to three feet in length, according to the strength of the plant. Messrs. Lodiges, Rollinsons, and others, possess plants for sale and every cultivator of orchidaceous plants should possess it. Mr. Bateman observes "it thrives best in a moderate temperature, and requires to be high potted, as by that means, the roots are more likely to be retained in a healthy state, and are better able to withstand the extremes of heat and moisture which will sometimes occur, and which have been found excessively injurious to *Loelias*, *Cattleyas*, and species of some allied genera. In winter they should be very sparingly watered, and kept in almost a dormant state."

2. *LILIUM THUNBERGIUM*. Mr. Thunberg's Lily. (Bot. Reg. 38.

LILIACEÆ. HEXANDRIA MONOGYNIA.

This splendid lily was introduced along with various others from Japan, by Dr. Siebold; and is now cultivated by Messrs. Rollissons and Youngs. The flowers are large and of a splendid orange colour. Dr. Siebold in his "Flora Japonica," observes, "that in more than twenty kinds of lilies brought by me from Japan to Europe, and deposited in the Ghent Botanic Garden, are varieties of *L. speciosum*. To the one with flowers rose-colored blotched with purple, I gave the name of *L. speciosum Kœmpferi*, because it was the indefatigable botanist Kœmpfer, who first made it known to Europeans. For the second with pure white flowers, I preserve the Japanese name Tametomo, which it bears in its own country, in consequence of having been first brought by that hero from the Loo choo islands, as the Japanese assert. The beauty and fragrance of the flowers of these two kinds rank them amongst the most magnificent of their genus; I should even say that *L. speciosum Kœmpferi* stood at the head of them all, if a variety of *L. longiflorum*, which I have seen in Japan with flowers often eight or ten inches long, did not dispute the palm on account of its sweetness. *L. speciosum Kœmpferi*, is cultivated all over Japan as an ornamental plant. Its true country is probably China, or rather Kori, if we may judge from its name Korai-juri or Korai-lily. It flowers in May and June; in the Botanic garden at Ghent it did not flower in 1832 (the first time in Europe) till August. Like other kinds of lily it is freely propagated by scales; it does not however bear bulbs in the axils of the leaves. It succeeds very well in a cold greenhouse, and even in the open air if protected. The variety of *L. tametomo*, although it has pleased some botanists to make a peculiar species of it, under the name of *L. eximium*, differs nevertheless, only in its flowers being quite white, and the leaves rather more distinctly stalked. According to some of the Japanese botanists it is found wild, not only in the Loo-choo islands, but also in the north of Japan; but it has, perhaps, been confounded with *L. japonicum*, which is often wild in those countries."

3. *GESNERIA STRICTA*. Upright Gesneria. (Bot. Mag. 3738.)

GESNERIACEÆ. DIDYNAMIA, ANGIOSPERMIA.

This pretty and very robust growing species was collected by Mr. Tweedie, in South Brazil, and forwarded to the Glasgow Botanic Garden, where it bloomed for the first time in July 1835. The flowers are about two inches long, of a red colour, and the habit of the plant is similar to *G. Sceptum*, it requires to be cultivated as the other species.

4. *BURLINGTONIA MACULATA*. Spotted Burlingtonia. (Bot. Reg. 44.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

This very distinct and pretty species was obtained from Brazil, by Messrs. Loddiges, in whose extensive collection it bloomed during the spring of 1838. The flowers are yellow spotted with brown, except the inner part of the lip which is of a delicate white. It requires similar treatment to what we described last month at page 187, for *Dendrobium Jenkensonii*.

5. *CATTLEYA CITRINA*. Yellow flowered Cattleya. (Bot. Mag. 3742.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A very fine and distinct species grown in the collection at Woburn Abbey, where it was received from Mexico in 1838. The flowers are about the size of the common *Tulipa sylvestris*, which it also somewhat resembles in form and colour. The plant is of easy culture, and we have no doubt will prove a valuable acquisition.

6. *GESNERA MARCHII*. Mr. March's Gesnera. (Bot. Mag. 3744.)

GESNERIACEÆ. DIDYNAMIA. GYMOSPERMIA.

A beautiful and distinct variety introduced from the Organ Mountains of Brazil, by Mr. Wailes, of Newcastle, in whose collection it has bloomed. The stem grows from two to three feet high, producing numerous blossoms of a fine scarlet colour.

7. *HETEROTROPA ASAROIDES*. Asarabacea like *Heterotropa*. (Bot. Mag. 3746.)

ARISTOLOCHIACEÆ. DODECANDRIA MONOGYNIA.

A very singular and rare plant introduced from Japan, by M. Von Siebold, and is cultivated at the Epsom Nursery, where it blossomed towards the end of February. It bears great affinity with the genus *Asarum*, but from which it has been separated on account of the arrangement of its stamens, and structure of the anthers, and also because of the nearly superior position of the orary. The flower bears a perfume similar to a ripe apple, and is of a dull purple colour, blotched or waved with grey towards the throat.

8. *INGA HARRISII*. (Bot. Reg. 41.)

MIMOSEÆ. POLYGAMIA POLYANDRIA.

A native of Mexico, from whence it has been imported by Thomas Harris, Esq., of Kingsbury, in whose fine collection it has recently bloomed; many of the Mexican plants require a temperature some little higher than a common greenhouse, so the present plant appears to require. It is a pretty climbing shrub, flowering freely; the corolla is rose coloured, beyond which the stamens protude more than half an inch, and appear like numerous crimson silken tassels. It is easy of culture, and readily propagates by cuttings of the young shoots. It delights in a fresh and rich soil.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

LISIANTHUS RUSSELLIANUS.—I have purchased on several occasions plants of *Lisianthus Russellianus*, but after trying my utmost to get a plant to bloom, I have failed hitherto. I have tried to grow it in a cool frame, greenhouse, and hothouse, and with peat soil, peat and loam, and rich loam, but in every case unsuccessful. I shall feel much obliged to some reader of the Cabinet, who have succeeded to bloom the plant, (for I see by accounts of Floral Exhibitions, several large plants in bloom have been shown;) would furnish me with the particulars of the mode of treatment through the medium of the Cabinet.

Aug. 3rd, 1839.

CLERICUS.

ANSWERS.

ON MICHAELMAS ASTERS.—A list is requested by a Correspondent in a late Number of the Floricultural Cabinet, if the Conductor wishes for such a list, he need only apply to Mr. Rivère, for in a small work called the *Vintor*, (of last month) is to be found the following remarks upon that flower, "attention has lately been paid to the increase of the Michaelmas Aster, and already we have for this month alone about a dozen of various heights, from two feet high (*Aster Amellus*) to seven feet high (*Aster Roseus*) and from fine white (*Aster Elegans*) to bright pink, pale blue and purple (*Aster Novæ Angliæ*.) Mr. Rivère has been successful in cross breeding those flowers, so cheerful at the commencing of our gloomy season, by tying together the flowers of the different sorts he is desirous of crossing; such as the rose-coloured and the white, the rose and the blue, and he describes his seedlings for one season, one thousand in number, as having all degrees of colours, from dark blue to the most beautiful azure, from light rose colour to the most delicate blush, and from pure white to the French, or greyish white, in countless varieties of shades, and of all sizes, some being the size of a sixpence, some an inch, or inch and a half in diameter, and some semi-double."

Such is the report made of the Michaelmas Aster in the above mentioned work, and if it should be of use to Mr. Harrison, and procure a list with such prices affixed as will come within the scope of a **SLENDER PURSE**, it will greatly contribute to the pleasure of H. M. E., and the beauty of her little garden.

(We shall be obliged if our correspondent would send us the number of the Publication to our Publishers, or inform us where to purchase it, as we cannot obtain it after several applications.—CONDUCTOR.)

REMARKS.

ON HYBRIDISING.—It remaineth to be ascertained whether there did exist a real natural, and indefeasible difference between plants which could produce a fertile, and those which could produce a sterile offspring, by blending their races. It was my opinion, that fertility depended much upon circum-

stances, of climate, soil, and situation, and that there did not exist any decided line of absolute sterility in hybrid vegetables; though from reasons which I did not pretend to be able to develop, but undoubtedly depending upon certain affinities either of structure or constitution, there was a greater disposition to fertility in some than in others. Subsequent experiments have confirmed this view to such a degree, as to make it almost certain that the fertility of the hybrid or mixed offspring depends more upon the constitution than the closer botanical affinities of the parents. The most striking and unanswerable proof of this fact was offered by the genus *Crinum*, which is spread round the whole belt of the globe, within the tropics, and within a certain distance from them, under a greater variety of circumstances affecting the constitution of individuals, which, nevertheless readily intermix when brought together by human agency. The plant called *Crinum capense*, (formerly *Amaryllis longifolia*), impregnated by either *Crinum zeylanicum*, or *scabrum*, both at that time also called *Amaryllis*, produced offspring, which during sixteen years proved sterile, probably because notwithstanding their botanical affinity, the first is an extra tropical aquatic plant, and the two latter tropical plants which affect drier habitations, and readily rot, at least in this climate, in a wet situation. The same *C. Capense*, impregnated by *Crinum pedunculatum*, *canaliculatum*, or *defixum*, produces a fertile cross, though they are so dissimilar as to have been placed in different genera; and the author was formerly reproved by botanists, as having committed an absurdity, when he insisted upon uniting them. The reason of the fertility of their joint produce, seems to be that they are all aquatic or swamp plants; and it may be further observed, that the crosses with the two former, the plants being all extra-tropical, are much more fertile than that between *C. Capense* and *defixum*, because the latter is a tropical plant. The mules *Scabrum* and *Capense* having continued so many years with every appearance of absolute sterility, without any change of situation or treatment, at last produced one good seed in 1834, and another in 1835. These facts were of such an overbearing nature, that it became impossible for those who had charged the author with absurdity for uniting the parents under the genus *Crinum*, to which even certain other plants were then asserted to be more nearly allied, than the species at that time called *Amaryllis*, to contend any longer that they producing a fertile offspring were of different genera, and they will probably be never again disunited in any botanical work; but the facts furnish much ground for the serious consideration of men of science. It happens as if expressly designed to overthrow the theory, that the identity of species is proved by fertility or sterility in the mixed issue; that while *C. Capense zeylanicum* and *Scabrum* are very similar in their general appearance, and yield an offspring which has been found quite sterile, except in the case of the two seeds above mentioned, *C. Capense* and *Pedunculatum*, are as unlike, as perhaps any two species of any known genus; and if it were asserted that *C. Capense* and *Pedunculatum* are one species; and *C. Capense* and *Scabrum* two species, the assertion would appear to any person looking at the plants, too preposterous to require a serious answer.

ON MODELS FOR FLOWER GARDENS —At some of the Floral Exhibitions recently held in, and about London, we saw several models of flower gardens formed with considerable skill, so as not only to be highly interesting objects, but very instructive. Green moss was placed so as to represent turf, sand for gravel, and flowers of a kind in masses to represent flower beds filled with flowers. Persons desirous of seeing something of the effect of a certain plan, would be able by such a prepared model to form an idea of its effect, if so constructed as a garden; or to see the contrast of arranging the colours even in a garden already formed. We think it would be useful to encourage the production of models of flower gardens, lawns with beds, and even kitchen gardens, plantations, and parks, by showing the grouping of various kinds of trees, &c. If Floral Societies would offer prizes for the construction of models formed after this manner, we feel confident it would meet with

the approval of visitors, and be found beneficial. Where Dahlias, China-Asters, and similar flowers are grown in quantities they afford a profusion of materials to appropriate for such purposes.—(CONDUCTOR.)

NEW AND RARE PLANTS,

Recently noticed at various Nurseries and Floral Exhibitions.

(Continued from page 191.)

Podolobium storophyllum.—A pretty flowering greenhouse plant, with yellow flowers having a reddish keel, blooming very freely.

Tabernaemontania coronaria.—The flowers are white and interesting.

Dillwynia glycinifolia.—Mr. Butcher, gardener to Mrs. Lawrence, exhibited a fine specimen of this pretty flowering plant. Its very numerous yellow and red flowers giving it a showy and interesting appearance.

Chorozema elegans.—This new and beautiful species has recently bloomed in the greenhouse in the London Horticultural Society's Garden. The flowers are of a brilliant yellow and crimson, produced in large spikes. It is a very desirable plant for the greenhouse.

Verbena Fergusoni.—This is similar to *V. Neilli* in habit, and the flowers of a lighter colour than *V. arranana*.

Stachy's Coccinea.—This plant is a native of Mexico, and bloomed at the Clapton nursery with the *Salvia patens*, &c. The plant grows to about half a yard high, having numerous branches flowering freely. The flowers are of a dull red, but though not brilliant when grown in masses, produce a pretty effect. It blooms in the open border from June to October.

Echium giganteum.—A fine plant of it was exhibited by Mr. Fielden, gardener to J. Linwood, Esq.; it had fine spikes of blue flowers, very showy. Both the kinds here exhibited deserve a place in every collection of greenhouse plants.

Anthocercis littoreus.—A greenhouse plant, flowers yellow, with dark streaks in the inside.

Pimelea hypericifolia; flowers white, having bright yellow anthers, interesting.

Mahernia pimata.—A pretty flowering greenhouse plant, profusely in bloom, flowers bright scarlet outside, and blush inside.

Hemerocallis rutilans.—The flower-stems rise about a foot high, having flowers of a golden yellow.

Lilium longiflorum.—A very fine specimen having fourteen large flowers, of a most pure white, and fragrant. The plant had four stems rising about four feet high; it deserves a place in every greenhouse.

PELARGONIUMS EXHIBITED BY MR. CATLEUGH.

Victory, lower petals nearly white, upper petals with a large dark spot, slightly streaked.

Florence, lower petals pale rose, upper petals having a large dark spot, slightly streaked. The flower is nearly white at the centre.

Sylph, lower petals pale rose, upper petals with a large dark spot, the flower becoming whiter at the centre. The flower is very large.

Stella, lower petals bright pink, upper petals rosy crimson, with a moderate sized dark spot.

Splendidum, upper petals of a bright rosy crimson, having a largish dark spot, lower petals rosy crimson. The flower is lighter towards the centre, and of a very superior form.

Rienzi, the flower is of a beautiful pale pink, with a large dark spot on each of the upper petals, streaked with a darker colour, and having a centre nearly white. It is of a very superior form.

Una, white slightly tinged with blush, a moderate sized crimson spot on upper petals. The flower is of a fine form.

Magna Charta, white tinged with blush, the upper petals having a large dark spot, and streaked with dark. Flowers of a fine form.

Orange Boven, lower petals of a beautiful rosy pink, upper petals rosy crimson, having a moderate sized dark spot.

Fanny Garth, lower petals of a pretty light pink, upper petals pink having a large dark crimson, spot which is streaked and veined with darker; a very fine flower.

Mary of Burgundy, flower of a fine rose colour, having a large dark spot on the upper petals; fine form.

Discount, lower petals pink, upper petals of a rosy crimson having a dark eye. A very profuse bloomer.

Floribunda, whitish blush, upper petals having a large dark spot. The flower is of a superior size.

Dowager Queen, lower petals of a pale blush, upper petals having a large dark spot shading off to a fine crimson towards the edge of the petals.

Rebecca, lower petals pink, upper petals crimson, having a large dark spot. Flower middle sized.

Polygonum amplexicaule.—A hardy perennial plant, whose flower stems rise to the height of three or four feet, blooming from July to September, producing numerous spikes of crimson flowers. It requires, like most of the family, to be grown near water, so that its roots may reach it. (Bot. Reg.)

Medicago clypeata.—Sent from the north of India, the flowers are uninteresting, but the seeds are curious, resembling those seen in seed shops called snails. (Bot. Reg.)

Phaius bicolor.—Ochidaceæ.—Sent from Ceylon to Messrs. Loddiges; flowers of a very bright deep red, with a yellow lip. (Bot. Beg.)

Goodyera rubicunda, Synonym, *Neottia rubicunda*.—It has the habit of *G. procera*, but rather a less plant. The flower spikes rise about a foot high; the flowers are of a cinnamon brown colour, with a white lip. (Bot. Reg.)

Maxillaria lentiginosa.—The flowers are very like those of *M. stapeliodes*, only the spots are redder. It is a native of Brazil. (Bot. Reg.)

Vanda congesta.—Somewhat resembles *V. multiflora* in its flowers, being of a yellow and brown colour.

Mr. Hartweg collected in the mountaneous districts of northern Mexico seeds of many species of *Pinus*'s, and Dr. Lindley states in his truly meritorious work, the Botanical Register, that six of them are quite new to this country, lengthened descriptions of each are given.

Pinus Hartwegii.—Found to be a tree rising sixty feet high, the branches are very stout, like *P. palustris*; the leaves are upwards of six inches long, produced in fours. The cones of seed are four inches long and about two in diameter.

Gompholobium versicolor.—A greenhouse climber, the flowers are of a reddish yellow colour, introduced by Captain Mangles.

Acacia cynophylla.—Introduced too, we believe, by Captain Mangles.

Grevillia thelamanniana.—A native of New Holland, which produces racemes of fine scarlet flowers, well meriting a place in every conservatory and greenhouse.

Canostylis juncea.—A stiff growing herbaceous greenhouse plant, producing numerous flowers, well shaped, yellow.

Thysanotus isanthera.—It is an herbaceous greenhouse plant, flowering freely; the flowers are of a fine purple, much fringed.

Glaucium rubrum.—Like the horned poppy, but of a deep red colour.

Centaurea pulchra.—An annual of considerable beauty; the flowers are of a fine deep blue, with a purple centre; it has flowered in the garden of the Hot. Society.

Gloxinia grandiflora.—Introduced from America; the flowers are like to *G. caulescens* in form and size, but of a lilac colour.

Thysanotus proliferus.—A native of the Swan River, and flowers for several successive months in the greenhouse. We believe it was introduced by

Captain Mangles; we saw it in bloom at the Clapton Nursery. The flowers are of a deep rich blush chocolate colour, having the petals beautifully fringed. It is a very neat and interesting plant, well deserving a place in the greenhouse.

Chorizema ovata.—A fine specimen three feet high with numerous branches, in profuse bloom, was exhibited by Mr. Butcher, gardener to Mrs. Lawrence. It was a most beautiful object.

REFERENCE TO PLATE.

EPACRIS COCCINEUS. We have remarked in a former Number of the Cabinet on this very beautiful flowering plant, where we stated it had been raised by Mr. Kynoch, gardener to A. Copeland, Esq., Leyton, Essex, where it had bloomed; we have since that time seen it in as profuse bloom at Mr. Lowe's, as the well known *E. impressa*. The present plant is of more robust habit than *E. impressa*, the foliage more dense, and of larger size. The flowers are larger, and more campanulate; plants are not yet to be procured, but when to be obtained, it deserves a place in every collection of greenhouse plants.

GOMPHOLOBIUM VERSICOLOR. This very pretty flowering greenhouse plant we recently saw in bloom. It was introduced from the Swan River Colony by Captain Mangles, R. N., and has flowered in the fine collection of R. Mangles, Esq., Sunning Hill, Berks. It thrives well in a compost of sandy peat and loam, and strikes freely by cuttings. The plant has a tendency, like *G. polymorphum*, to grow up with but few lateral shoots, but if the leading shoot of a plant be pinched off it causes it to push lateral shoots, which if stopped too, will induce a production of shoots so as to make it quite a bushy plant. It deserves a place in every greenhouse.

TWEDDIA CÆRULEA. We have recently seen at the London Floral Exhibitions several plants in fine bloom. It is a handsome climbing plant, and when properly grown is very handsome. In consequence of its high price, those who procured plants, and not knowing its peculiar mode of treatment, have generally kept it in the hothouse or greenhouse, both of which situations are incongenial, and the plant becomes sickly; and in proportion to the height of the temperature the flowers become paler; when this has been the case, persons have been disappointed with it. It appears to require a greenhouse protection in winter, or a good cool frame, and to be turned out into the open border in May, trained against a good aspected wall, trellis, or some suitable support, where it is found it will bloom vigorously, and the flowers to be of a fine blue colour; it blooms from April to September. It has been supposed to be herbaceous, but plants have been kept for two years, and have now a shrubby habit. It is easily increased by cuttings; the plant deserves a place in every collection.

EPACRIS IMPRESSA var. *PARVIFLORA*.—The present kind was sent from New Holland by our much respected friend Mr. James Backhouse, to the York Nursery, under the name of *E. ruscifolia*; it is a very pretty and interesting plant, and like all the family of *Epacris* merits a place in every greenhouse; their neat and handsome flowers blooming from August to April, and thus are highly ornamental for winter, adorning the greenhouse. *Epacris*'s require to be carefully attended to, they ought not to be allowed to flag for want of water, and yet soon sustain injury by an excess; it is advisable to place the plant rather high in the centre of its pot, as should be done with heaths.

A sudden removal from extremes in temperature is also very injurious to the *Epacris*.

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.

DAHLIAS.—Where the lateral shoots are numerous they should be thinned, so as to induce vigorous shoots and flowers. Seed from early blown flowers will be ready to gather by the end of the month.

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, should now be taken up and planted in the situation 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*) &c. Runners of these plants 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. Pinch off the heads of the plants having only single stems to induce lateral shoots, and obtain heads of flowers.

When *Petunias*, *Heliotropiums*, *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.

Lobelias, offsets of, should be potted so as to get well rooted before winter.

Tigridia, *pavonia* roots may generally be taken up about the end of the month, and a quantity of soil should be retained and be allowed to remain around it to dry, it contributes much towards preserving them through winter in a sound condition.

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. The earlier succulents are the better.

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 towards the end of the month, puddle and water freely till the autumn rains set in.

FLOWER GARDEN.—Towards the end of the month strong winds generally prevail, so that all plants should be securely tied up to prevent their being broken.

Seeds of many kinds of flowers will be ripe for gathering this month.

When *Lillies*, *Crown Imperials*, *Narcissuses*, &c. require dividing, take them up now, and replant them immediately.

1. # 108,



Roelia elegans.

Fuchsia Wormaldii.



Sabia confertiflora.



Lobelia ramosa.

THE
FLORICULTURAL CABINET,

OCTOBER 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CULTIVATION OF CALCEOLARIAS.

BY MR. E. BARNET, VICTORIA LODGE, REGENT'S PARK, LONDON.

THE admiration of this lovely tribe of flowers, as far as my observation goes, has been universal, their delicacy, graceful form, elegance, variety, and richness of coloring, with duration of a blooming period of eight successive months, alike combining to give them interest.

At some of the exhibitions of flowers recently held in and around the metropolis, there have been some most striking and beautiful spotted kinds exhibited, as the Conductor of the Cabinet would see, (We did;) white, cream, yellow, orange, scarlet, crimson, lilac and pink ground flowers, charmingly spotted with dark.

I have a considerable collection of my own, and having paid more than the usual attention given by an amateur to their cultivation, I forward some remarks on the mode of treatment I have very successfully pursued, so as to have plants in pots three feet high with a profusion of flowering branches, so as to compose a compact head of ten feet in circumference.

Propagation.—The herbaceous kinds are readily increased by division of the offsets, which will generally be found rooted: in order to have plants to bloom vigorous the following year, they should be taken off early in August, and be planted in pots about four inches in diameter, and be placed in a cool frame, where

they may be kept till the following spring, by preserving them from frost and being over damp.

Half Shrubby and Shrubby kinds are easily increased by slips, taken off close to the stems they proceed from. Where an opportunity occurs of keeping plants to propagate from closely together, and they are placed upon a damp floor, or in a damp situation, that has the effect speedily to induce the production of small roots at the lower parts of many of the shoots, these shoots being taken off and potted in small pots in August or September, make fine plants for vigorous bloom the following year. Though slips and cuttings destitute of these infant rootlets, will strike if inserted in sandy peat and loam and placed in gentle heat in a hot bed frame, yet I find the foregoing method much more certain and much less trouble is occasioned.

During the autumn and winter I find my plants, so placed, afford me a numerous stock of rooted slips to take off, and I keep up my collection of young and handsome formed plants with little trouble, and am enabled to turn out into the open beds, not only my old plants, but any desired quantity of young ones too. During the last three years I have purchased one hundred and six of the best kinds I could meet with, and by this most easy method of propagation I have not lost one kind, but have a sufficient stock of each.

Compost.—I find equal portions of turfy sandy peat, loam, leaf mould, and well rotted hot-bed dung, well incorporated together for a few weeks before using to be the most suitable for growing the plants vigorously, I never have the compost sifted, but well chopped with the spade when going to use it for potting.

Potting.—A very free proportion of drainage is essential to their success, and I place in small pots, one inch deep of broken potsherds, and one inch of moss upon them, the largest pots I give two inches deep of each, upon this substrata the soil is placed. The *Calceolaria* imbibes a considerable portion of water by the roots, when it is in a healthy condition, to supply it with a fresh element of it, is therefore necessary; if there be not a free drainage to allow superabundant water to pass, the soil becomes saturated and sour, which occasions sickness, and often the death of the plant.

The time I repot my young plants, potted off in August and September, is about the middle of February; the most vigorous I plant in pots one foot in diameter and ten inches deep. Weakly

plants I put in pots half the size for a few weeks, and then repot them into the larger size, as the circumstances of growth require; in pots of this size I bloom my stock generally, but when I see a plant in such a sized pot that would bear a larger I remove it into a size bigger.

After potting I place the plants in a greenhouse upon a moveable stage, which is fixed so that the plants may be about a yard from the glass; (the stage is raised or lowered as desired by the turning of a wheel rack, with notch to secure at each end of the stage;) here I keep them till they bloom, giving them a free supply of air, to prevent them growing up weakly. The surface soil in the pots is frequently stirred, so as to allow water to pass through regularly, and evaporation to rise to the plants. The Calceolaria is more susceptible of injury by watering than most plants in general cultivation, so that after all attention to draining, compost, and stirring the surface repeatedly, it is requisite to attend to a due order in giving a supply; they should be so attended to as to keep the soil moist, not wet; previous to the plants blooming I frequently sprinkle them overhead with water early in the morning, this keeps the foliage clean on its upper side, and the damp arising to the under side keep the plants free from the red spider, as well as promotes the rootlets before named. When the plants are in bloom I have a canvas cover over the roof of the house where the plants are. By keeping them in doors I have an opportunity of impregnating the flowers and obtaining seeds. I have a numerous progeny of seedlings now coming into bloom, many very beautiful and distinct. As soon as I gather the seed I have the plants placed out of doors where they are shaded from the sun from eleven to three o'clock, they push again here and bloom for the greenhouse in October; if I want increase, I retain a few plants in a moist situation, as before observed.

E. BARNET.

Victoria Lodge, Regent's Park.

ARTICLE II.

REMARKS ON PROPAGATING THE HEARTSEASE.

BY PENSE.

My intention in sending the remark on propagating the Heartsease, is with a view to render an acceptable service to the public, for the success of a collection must depend mainly upon this process. I do not share in the fears that have been expressed, that I shall make the public so knowing, that they will not only strike their own plants, but also supply their neighbours, to the injury of the trade. It is no disadvantage to a nursery-man for a private person to amuse himself with striking a few cuttings; for though it may enable him to keep up his old sorts, he will naturally as he grows more and more fond of the fancy, purchase the new and beautiful kinds, which are annually raised from seed. Neither is there any objection to his giving away a few plants to his friends for it helps to extend the fancy, and those who began with a stock that cost them nothing, may soon become purchasers in their turn. All parties must remember, that if they wish to keep pace with the improvements that are continually going on, they must be always adding a few of the newest and best sorts to their collection; for the flower may still be said to be almost in its infancy, and what we admire one year is almost sure to be surpassed the next. I think, indeed, that novelty is a point to which the judges ought to pay more attention than they generally do at exhibitions, provided of course, that all other good qualities accompany it. And in this respect, as indeed in every other in which this flower is concerned, the amateur need not fear to compete with the nursery-man, for if his stock is smaller, his attention is probably less divided.

I have found there is an inconvenience, and frequent disappointment, attending the habit of putting in large pieces as cuttings I will therefore point out how I have succeeded in various ways in the use of small ones.

If they are intended to be struck under hand glasses, there should be a shady situation chosen for them. Then prepare some finely sifted mould, consisting of good loam and leaf mould, if it can be procured, to which add about one fourth-part of road sand, or river sand. Perhaps the best plan is to add the ingredients together first, and sift them afterwards, as this will mix them more

thoroughly than any other method. Then make a bed of not less than three inches deep, well pressed down with the hand or spade, and leave a margin of two inches beyond the space which the cuttings are to occupy. The earth should be watered with a fine rosed watering pot a few hours before it is planted, in order that the cuttings may be fixed more firmly in the ground. The person of course must be prepared with some number-sticks, about three inches long and not more than half an inch wide, to mark every sort as it is put in. All may begin numbering from either side, provided he always keep to the same way ; but it is usual to commence counting from the left corner of the glass, to put the stick down first, and then the cuttings in succession behind it, till the next stick marks the commencement of a fresh variety. Leave about half an inch between the rows, and an inch between the cuttings in each row. The cuttings themselves should be about two inches long, taken off just below a joint, and then should be inserted about an inch deep, taking special care not to make the hole deeper than required, or else to fill it well in afterwards, that the bottom of the cutting may come immediately in contact with the soil, instead of being suspended in the air with a hole full of stagnant water below it. Press the soil gently but firmly round the cuttings, and sprinkle them lightly over with water. Then put the glass on, and when the sun shines powerfully let them be shaded with a mat till its strength is gone by. They will not require much water, the shoots being of a moist substance themselves ; and if they are much wetted, or deprived entirely of the sun, they will be in danger of suffering from damp. After they have been in about a fortnight, the glass might be occasionally removed at night for the sake of catching the refreshing dews, and replaced in the morning. When it is perceived that they are beginning to grow, and the tops have extended themselves, pinch off the extreme points of them, and they will make snug bushy plants. Even if they have not rooted, which is sometimes the case after they begin to grow, this practice of pinching off the top will help to check the rising of the sap, and cause the roots to protrude earlier than they would otherwise have done. Those who have no hand glasses, or who have more cuttings to strike than their glasses will contain, must prepare a shady border in the manner already drescribed, and cover it with a mat, which may be removed at night for the advantage of the dews, but the shade must be renewed by nine or ten o'clock in the morning, or all the previous labour will be thrown away.

There is another piece of advice, for which I think the beginner will be grateful, and that relates to the worms and insects, which he will often find very troublesome among his cuttings. If the cuttings are annoyed by worms, procure half a bushel of stone lime, and put it into a tub with about twelve gallons of water. When it is slacked, stir it occasionally; then let it settle till it is quite clear. After freeing the water from the scum that rises to the top, sprinkle the cuttings all over with it in the evening, about dusk, as then the worms will be either on the surface or very near it. If one watering is not sufficient, it must be repeated in a few days; and it would benefit not only cuttings, but rooted plants in your beds, destroying the slugs and grubs, especially if done on a moist evening, when they are most numerous and early in their appearance.

PENSE.

ARTICLE III.

ON THE CULTURE OF PELARGONIUMS, (GERANIUMS OF MOST.)

BY A FOREMAN OF A LONDON NURSERY.

THE very great addition to this lovely tribe of plants, during the present season as has been exhibited at the Floral meetings, held at the rooms of the London Horticultural Society, in Regent street, at the gardens of the society at Turnham Green, and other places, will render it quite unnecessary for me to apologize for sending the following remarks on the culture of so generally an esteemed family for insertion in the Floricultural Cabinet, they are the results of my mode of treatment with a collection of above ten thousand plants which are under my charge.

Propagating by Cuttings.—Early in June I take a sufficient quantity of cuttings of the different varieties, and after carefully preparing them, by taking off the lower leaf, and cutting horizontally through the stem just below a joint, I insert each sort separate, in pots previously filled with a mixture of three parts sharp sand, and one part sandy loam, using plenty of drainage at the bottom. After the cuttings are all put in, I give a good watering, and then remove them to a moderate hot-bed, and plunge the pots to the rim; I keep the lights shut close, except in the morning, when I admit a little air, and with due attention to shading and watering, I find them to be well rooted in about a month. Those kinds

in which we abound I prepare cuttings as above described, and prick them out in a bed of finely sifted soil, in a warm situation in the open air. By shading them for a short time they soon strike root. When this is perceived to be the case, I pot them singly into small 60s, shifting at the same time those that were inserted in the small pots. In potting I use a compost of equal parts of sandy loam, peat, and well decomposed manure, adding about one eighth part sand; when potted, I place them in a frame, where the lights are put on in the day time, in order to throw a mat over them to shade the young plants from the sun; the lights are taken off in the evening, and the plants supplied with water, until they have struck fresh root, when this is found to be the case, the lights are removed altogether, and the plants duly supplied with water. They remain in this state till the middle of August, when I carefully examine them, and shift those which have made sufficient roots into one size larger pots, being careful in this, as in all other shiftings, to use a sufficient quantity of drainage to carry off the superfluous moisture. Those plants not sufficiently rooted by that period, I defer shifting till the spring, as they succeed better when shifted at that time. After thus looking over all the plants, they are replaced in the frame, and treated the same as before, with this exception, that the lights are put on at night, and during heavy showers. About the first week in October they are removed to the greenhouse, where they receive all the air that can be admitted with a regular, but moderate supply of water. Fire heat is not used except to repel frost, or the dry damps arising from watering, or other causes; to avoid damps in a measure I find it best to water in the morning, so that the air admitted during the day assists to carry off the superabundant moisture. The surface soil in the pot is frequently stirred, and occasionally some of the old removed and renewed; all decayed leaves are removed, both on account of the well being of the plants, and to preserve neatness and order.

Potting.—The time of performing this operation is partly regulated by the state of the plants; those that were shifted in August, do not require shifting again till the middle of February, and again early in April, whilst those that were not shifted in the autumn require their first shift in February. In each successive shift I use one size larger, taking care to put plenty of drainage into the bottom, and to press the soil firm in the pots. I find the following compost to answer well: two barrowsfull of light hasel

loam, (from the surface of a rich pasture, which should be collected at least a twelvemonth before it is used,) one and a half barrowful of well rotted hot-bed manure, one barrowful of turfy peat, half a barrowful of pigeon's dung, two or three years old, and a quarter barrowful of sand, the whole being mixed in the autumn, and put under an open shed. In using it I do not sift it but it is chopped fine with a spade. As the spring advances I allow a more copious supply of water, and I find that by using liquid manure once a week after they begin to grow, the plants are greatly strengthened, and the size of the flowers increased. When the flowers begin to expand, I shade them from the sun, by rolling a canvass over the roof of the house, which contributes to heighten the colours, and they remain much longer in bloom. The plants are placed on stages, which are constructed so that the surface of the plants are not more than five feet from the glass and a free admission of air being admitted at the sides of the double roofed houses, as well as at the roof, the plants are stiff and robust. Attention is paid to placing the plants at a greater distance from each other, as they advance in growth, and thinning away the shoots so as to leave them regularly placed and properly tied to sticks so as to splay around and form compact heads.

In June the plants are removed from the greenhouses to an appropriate situation in the open air, where they receive the full influence of the sun till eleven, o'clock and by attention to watering many of them continue to bloom through the summer. Early in September, the plants are cut down to within a few inches of the pots ; and they flower well the second year.

On Raising New Varieties.—This department of their culture may prove a source of great amusement and gratification to those who can devote sufficient time to it. Good varieties may often be obtained from seed saved promiscuously from fine flowers ; yet in order to ensure success, it is necessary to have recourse to impregnation, in performing which, the following rules are strictly observed. The operation is performed with blossoms as nearly as possible, in the same state of advancement. The anthers are removed from the flower intended for impregnation in the morning, because the pollen is then moist, and not so likely to escape by accident, so as to confuse the experiment. A considerable quantity of pollen is used in such impregnation, both on account of the chance of a minute particle of the natural pollen having escaped, and also because it is more difficult to produce fecundation

with the other. Both before and after the operation, the flower impregnated is covered with a piece of thin gauze, to prevent the bees or other insects from intermeddling and rendering the operation vain. The colours of the parents are selected as distinct and opposite as possible as to colour. The plants after operation are placed in a situation in the greenhouse where they can receive the full influence of the sun. The seeds are gathered as soon as they begin to turn brown, otherwise, being furnished with a downy appendage, they are liable to be blown away by the wind; they are sown in pans or boxes, in light soil, and covered about a quarter of an inch with the same, but finely sifted, and placed in a hot bed frame. When they have made two or three pair of leaves, they are potted into small pots, kept in a greenhouse. Though few of the strongest plants flower the first summer, yet the greater part do not till the following spring.

ARTICLE IV.

ON THE CULTIVATION OF ERICAS.

(Continued from page 205.)

There is no subject in gardening more difficult to give written directions upon, than that of soils, so little, unfortunately, have they been chemically studied, so vague and unintelligible are the tests by which they are practically known. The soil which the *Ericæ* and many other fine rooted plants prefer, is called peat, bog mould, heath mould, moor earth, &c., and abounds in sufficient quantities in many places, particularly in uncultivated heaths. But of this soil there are both good and bad sorts, that is, sorts in which plants will grow to perfection, and others in which they languish and decay. Nor is it to be taken for granted that that peat which produces the finest and healthiest crops of our common heaths, such as *Erica Tetralix*, and *cinerea*, is always a fitting soil to be used for exotic plants of similar habits; for many, by contenting themselves with this test, have found out their error, when too late to remedy it. That peat is best which contains about one fourth or one fifth of coarse white sand, and is taken from a dry heathy common, which is never overflowed with water, and off a sub-soil in which the recently discovered chemical substance, creasote, which has deleterious effects upon all vegetables, does not abound. It might be well for the cultivator to have a chemi-

cal analysis made of his soil, by which the presence or absence of creasote would be determined, and which any respectable chemist would discover for him. When abundance of sand does not naturally abound in the peat, any coarse white sand, free of iron matter, may be added. It appears to be of little consequence whether or not good peat be prepared for any previous period in the compost yard prior to using; we rather think that the sooner it is used the better. As a substitute for peat, some have recommended very rotten dung, decayed leaves, &c., having a due proportion of gritty sand added; and others have suggested the addition of very rotten manure to be used with peat, with a view to increase the rapidity of the growth of the plants. The former may be used, in default of better, for hardy American plants, but the addition of the latter is by no means to be recommended.

Water.—Soft water alone should be used for watering plants of every denomination; that from a pond or large river, or such as is collected in cisterns from the roofs of buildings, to be preferred. Water pumped from wells, and such as may be procured from springs, should be exposed for as long a period as possible to the action of the sun and air before it can be usefully applied to plants. Water impregnated with mineral matter, such as iron, salt, &c., should be carefully avoided; and that containing much calcareous matter is injurious to many plants, and to none more so than the genus *Erica*.

Shifting and Potting.—Early in spring appears, from practical observation, to be the most proper time for shifting or potting plants of this order that they may make roots during summer; but to this rule there are some exceptions, namely, the state of health of such individuals as require shifting into other pots at various periods of the year. All plants whose roots have completely filled the pots, and whose balls are hard in consequence, should be shifted into pots of one size larger. All plants that appear in a weak and sickly condition, should be turned out of the pots and the roots examined, the dead ones cut away, the sour and exhausted mould displaced, and then planted into a pot somewhat smaller than that out of which it was taken. When a pot feels heavier than usual, it is a sign that the ball has absorbed too much water, either from an excess of that element having been supplied, or, as is more generally the case, from imperfect draining. When such is the case, reduce the ball, prune the roots, and re-pot it as recommended above. The mould should be prepared by being

chopped fine, or even put through a coarse sieve, of not less than one inch in the mesh, unless, indeed, the plants be young; for very large plants, the mould may even be much coarser than that which will pass through a sieve of the above dimensions. Whether for large or small plants, it is absolutely necessary that the mould be dry at the time of potting, as should also be the pots into which the plants are to be put. It is not always necessary that new pots should be used, but care should be taken that they are clean, and selected of sizes, to suit the plants to be operated on.

In potting, draining is of the first importance; for this purpose from one to three inches, according to the size of the pot, should be filled with broken pots, cinders, small stones, chippings of freestone, or small pebbles, over a piece of potsherd or oyster shell, placed over the hole in the bottom of the pot: over this drainage a thin layer of dry moss should be placed, to prevent the finer earthy particles from being washed down, and to stop the cavities through which the superfluous water is intended to pass; and as the various species of moss, *hypna*, &c., have the property of absorbing humidity, and also of retaining it for a considerable time, the roots will by this means be kept cool and moist, much to their advantage.

In placing the plant in a new pot, it has been recommended to keep the top of the ball considerably above the level of the top of the pot; in so far as the plant is concerned, this is admitted to have rather an unsightly appearance. The rationale of this mode of potting appears to be, that it prevents the plant suffering from excess of water, as the ball at the stem of the plant is so much above the level of the part next to the pot, that the water, instead of finding its way into the centre of the ball, passes down between it and the pot, where are all the roots that are capable of absorbing it for the use of the plant; the superabundant water passing off through the drainage.

The balls of heaths, if in good health, do not require to be broken, as is necessary with some other plants; it is in general sufficient if the sides of the balls be gently patted with the hand to loosen the outside fibres, which, in healthy plants, will be found in abundance round the outside of the ball, nor should any plant be shifted until such is the case.

It appears to me that the free or luxuriant growing sorts thrive best in rather large pots, and in a peat soil not over sandy, while the slow growing and slender sorts require much smaller pots, and

a soil in which more sand abounds, either naturally or by addition; it is also necessary that the pots into which the latter are to be placed should be completely drained. The latter also requires at all times much less water, because they are, for the most part, found indigenous in soils and on situations where little soil and less moisture abounds.

ARTICLE V.

ON THE CULTIVATION OF THUNBERGIA ALATA, AND T. LEUCANTHA.

BY CLERICUS.

WHEREVER I have seen these beautiful climbers cultivated in doors by professed gardeners or amateurs, I have invariably noticed the speckled, or sickly appearance of its leaves. This, I have no doubt arises more from the unsuitableness of the soil in which the Thunbergia is planted, than from any difference of temperature to which the plant is subjected.

The beauty of all flowers, especially those of light colours, is greatly increased by being contrasted, with a rich deep foliage. This desideratum may be obtained in the Thunbergia, by planting it, when five or six inches high, in a mixture of cow-dung and pure black peat (without sand): the composition can scarcely be too rank. In proof of the efficacy of this mode, I may mention, that I have had it with leaves, and grown in a south window, that measured four inches in length. During the last summer I had also two other plants, raised from seed in a cold frame, which were equally healthy although later in flowering.

Thunbergias are readily raised from seeds, which should be sown singly in pots three inches in diameter; these may be placed within a cucumber frame, kept moist; and have as much air as possible. When the runner is six inches high, prepare a compost of equal parts, cow-dung and peat; shake the plant and ball entire out of the small pot, and insert it in the centre of one seven inches in diameter, previously partly filled with the composition; then add more of the moist compost, not pressing it too close, that the roots of the plants may work through the interstices to the sides of the pot; dredge a little mould or sand on the top, to prevent too rapid evaporation; and then the plant may either be returned to the frame, or placed in a south window, until fairly rooted, and the

weather be suitable to place it out of doors. It will bloom in about ten weeks from the time of sowing the seed. For a window or otherwise, the plants looks and thrives best if the three leads be allowed each a small neat stick to climb up, which at a yard high may form a pyramid, and the plant be stopped when at the top; pendants will then be thrown out, and flower beautifully.

If the red spider ever attack a plant, I turn it upside down and immerse it in soap suds for a few minutes this never fails to destroy the insect.

I have grown both the kinds very freely in the open air, planting them against a wall which has a south-east aspect. I turned them out of pots the last week in April, sheltering them a little with a net till the end of May; the soil in which they grew was a mixture of peat and rich loam, I had some planted out into my flower beds, which are well sheltered from the prevalent westerly winds, and they too bloomed admirably; I allowed the plants grown against the walls to twine around upright wires, placed at an inch from the wall, the shoots reached nine feet high last season and bloomed most profusely, and I scarcely need add, produced a very pretty appearance, more especially so when I had a plant of fine blue purple flowered *Maurandia Barclayana* planted, between the buff and white *Thunbergias*, the contrast was pleasing: the plants I had in the open flower beds I had trained up a central wire stem, two feet high, having a head resembling an umbrella of three feet in diameter, the shoots soon covered the surface, and hanging pendant at the extremities were very interesting.

Northampton, July 2nd. 1839.

CLERICUS.

ARTICLE VI.

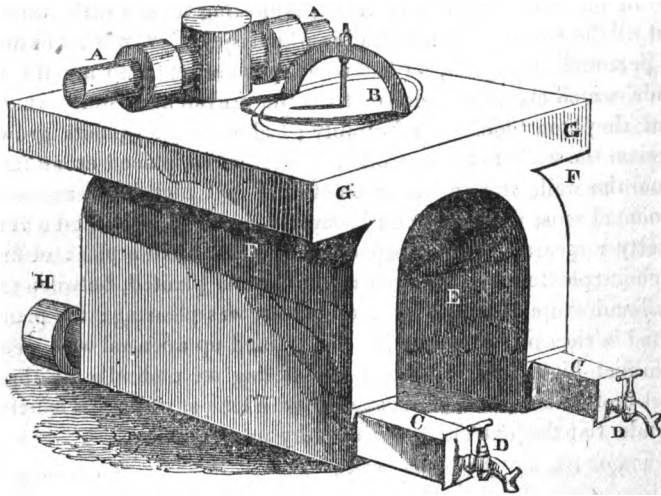
WILLIAMS AND Co's. PATENT WROUGHT IRON BOILER FOR HEATING GREENHOUSES, &c. WITH HOT WATER.

BY W. GARDENER, KNAP HILL.

PRESUMING that all subjects connected with the construction or heating of horticultural buildings will be acceptable to your numerous readers, I beg to direct their notice to the accompanying drawing of a boiler invented by Williams & Co., which in my estimation appears to possess merit peculiar to any other boiler used for heating greenhouses and other erections with hot water. The chief feature in the plan is the simple and easy mode adopted

for cleansing the inside, which appears to have been overlooked by makers of other descriptions of boilers used for the same purpose; the boiler is very compact, and every advantage appears to have been taken for the economizing of the fuel, which from the way in which the heat is caused to act upon every part of the boiler must be a very considerable saving of fuel.

Several of these boilers were erected last winter, and have given the greatest satisfaction from the testimonials which I have in my possession. The price of the apparatus does not exceed any common plan of hot water apparatuses.



A A the flow pipes. B man-hole. C C apertures of three inch square pipe, nine inch long with cocks. D D fixed on to the front with a moveable flange, to clear out the dirt, &c., from the inside. E the fire place. F the outside of the boiler forming the side flues, where the fire passes round. G the top of the boiler. H the return-pipe.

(We admire the plan adopted by the patentee in offering to guarantee the success of the boiler for five or more years. See advertisement.—COND.)

W. GARDENER.

Knap Hill, July 20th.

ARTICLE VII.

ON CHINESE GARDENS.

(Continued from page 208.)

In their plantations, the Chinese Artists do not, as is the practice of some European Gardeners, plant indiscriminately every thing that comes in their way; nor do they ignorantly imagine, that the whole perfection of plantations consists in the variety of the trees and shrubs of which they are composed: on the contrary, their practice is guided by many rules, founded on reason and long observation, from which they seldom or ever deviate.

“Many trees, shrubs and flowers,” sayeth Li-Tsong, a Chinese author of great antiquity, “thrive best in low moist situations; many on hills and mountains: some require a rich soil; but others will grow on clay, in sand, or even upon rocks; and in the water; to some a sunny exposition is necessary; but for others, the shade is preferable. There are plants which thrive best in exposed situations; but, in general, shelter is requisite. The skillful gardener, to whom study and experience have taught these qualities carefully attends to them in his operations; knowing that thereon depend the health and growth of his plants; and consequently the beauty of his plantations.

In China, as in Europe, the usual times of planting are the autumn and the spring; some things answering best when planted in the first, and some in the last of these seasons. Their Gardeners avoid planting, whenever the grounds are so moist as to endanger the rotting of the roots; or when the frosts are so near as to pinch the plants, before they have recovered the shock of transplantation; or when the earth and air are too dry to afford nurture to them; or when the weather is so tempestuous as to shake or overturn them, whilst loose and unrooted in the ground.

They observe, that the perfection of trees for Ornamental Gardening, consists in their size; in the beauty and variety of their forms, the colour and smoothness of their bark, the quantity, shape, and rich verdure of their foliage; with its early appearance in the spring, and long duration in the autumn; likewise in the quickness of their growth, and their hardiness to endure the extremities of heat, cold, drought or moisture; in their making no litter, during the spring or summer, by the fall of the blossom; and in the strength of their branches, to resist, unhurt, the violence of tempests.

They say, that the perfection of shrubs consists not only in most of the above mentioned particulars, but also in the beauty, durability, or long succession of their blossom ; and in their fair appearance before the bloom, and after it is gone.

“We know,” say they, “that no plant is possessed of all good qualities ; but choose such as have the fewest faults ; and avoid all the exoticks, that vegetate with difficulty in our climate ; for though they may be rare, they cannot be beautiful, being always in a sickly state ; have, if you please, hot-houses and cool-houses, for plants of every region, to satisfy the curiosity of botanists ; but they are mere infirmaries : the plants which they contain, are valetudinarians, divested of beauty and vigour ; which only exist by the power of medicine, and by dint of good nursing.”

Amongst their favourite trees, is the weeping willow, which they cultivate with great care, and plant near all their lakes, rivers, fountains, and wherever else it can be introduced with propriety ; dwarf kinds of it are raised in pots, for the apartments.

The excessive variety of which some European Gardeners are so fond in their plantations, the Chinese artists blame ; observing, that a great diversity of colours, foliage, and direction of branches, must create confusion, and destroy all the masses upon which effect and grandeur depend ; they observe too, that it is unnatural ; for, as in Nature most plants sow their own seeds, whole forests are generally composed of the same sort of trees. They admit, however, of a moderate variety ; but are by no means promiscuous in the choice of their plants ; attending, with great care, to the colour, form, and foliage of each ; and only mixing together such as harmonize and assemble agreeably.

They observe, that some trees are only proper for thickets ; others, only fit to be employed singly ; and others, equally adapted to both these situations. The mountain-cedar, the spruce and silver firs, and all others whose branches have a horizontal direction, they hold improper for thickets ; because they indent into each other : and likewise cut disagreeably upon the plants which back them. They never mix these horizontal branched trees with the cypress, the oriental arbor vitæ, the bambu, or other upright ones ; nor with the larix, the weeping willow, the birch, the laburnam, or any of a pendant nature ; observing, that the intersection of their branches forms a very unpicturesque kind of network.

(To be Continued.)

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

GESNERIA ELONGATA; var. *Gesneria elongata*, var. (Bot. Mag.

DIDYNAMIA GYMNOSPERMIA. GESNERIACEÆ.

This plant was received at the Botanic Garden, Edinburgh, in September, 1836, from the Messrs. Young, Nurserymen, Epsom, under the name of *G. oblongata*, perhaps by an error in the transcriber. It flowers most freely, exhibits a long succession of blossoms, and is therefore very desirable in cultivation. It differs from *G. elongata* of Humboldt in its much shorter peduncles, in the more obtuse base of the leaves, in its less angular branches, in the colouring of the veins and lower surface of the leaves generally, and in the subulate segments of the calyx. In these respects, it more nearly agrees with *Gesneria mollis*, but from this it differs again, and agrees with *G. elongata*, by its four flowered umbel and much shorter pedicels, and the bractæe opposite at their origin; the length of the peduncle being intermediate between its state in these two species. There are very many forms of *Gesneria* from the tropical parts of America, but I cannot think they ought all to be considered as species. This opinion is strengthened by the figures and descriptions of Humbolt, and the inspection of our present plant, which leads me to suspect that it may connect together as varieties *G. mollis* and *G. elongata*.

Whole plants villous. Stem (five feet high) shrubby, much branched; branches ascending. Leaves (three to six inches long, and one and a quarter to two and a quarter broad) opposite and decussating, petiolate, lanceolate, acaminate, neatly and subequally serrated, somewhat harshly pubescent and bright green above, white with soft tomentum below. Umbels four flowered, villous, shorter than the leaves; peduncle shorter than the petiole; pedicels about two thirds of the length of the peduncles; bractæe two, opposite, lanceolate, at the subdivision of the umbel. Flowers unilateral. Calyx with small, spreading, ovatosubulate segments. Corolla (one inch long, half an inch across) tubular, clavato-ventricose, dilated and somewhat fleshy at its base. Stem contracted, and after being dilated, again slightly contracted at its mouth; villous on the outside, glabrous within; limb spreading, lobes subequal, rounded, crenate. Stamens inserted into the base of the corolla, and rising to the throat; filaments pubescent; anthers divergicated at the base, where the connective is dilated, cucullate and fleshy, fifth stamen rudimental. Pistil pubescent; stigma minute, truncated; style bent at its base, compressed; germen more than half imbedded in the adhering calyx, and surrounded at its free apex with five glands. Ovules numerous, and minute.

ONCIDIUM PULVINATUM. Cushion Oncidium. (Bot. Reg. 42.

GYNANDRIA MONANDRIA. ORCHIDACEÆ.

W. Harrison, Esq., sent this charming species from Rio Janeiro, in 1834, to R. Harrison, Esq., of Aighburgh, near Liverpool. It is equal to *Oncidium altissimum* in stature, producing a panicle of numerous flowers, three yards long. The flowers are one inch across of a golden yellow, marked and spotted with blood colour. It is a very desirable species.

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PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON PANSIES.—When is the time to increase Pansies, so as to have them in a condition the best adapted to endure the winter? Is it usual to keep them through the winter in the open air, or to preserve some of the choice kinds in the greenhouse?
P.

(Thrives best in pots, kept in a cool frame.—COND.)

ON GERANIUMS, &c.—Having a little collection of plants growing in beds, but which are principally Geraniums, would you, or any of your readers, be so obliging as to inform me, through your Magazine, how I can preserve them in the winter, having neither frame nor pot. Do you think cutting them down as soon as they have bloomed, and, about October, burying them in saw-dust, would succeed?
LOUISA.

(We have seen that mode tried and the roots kept alive, but they grew very weakly the following season. It is far preferable to take the plants up, and place them as close as possible in a wicker basket, or box, and after filling up with soil, water them, and they may be kept in a cellar or kitchen, where it is cool; and plant out in spring.—COND.)

ON THE CRITERION OF A DAHLIA FLOWER.—The Conductor of the Cabinet would oblige many of his readers by informing them whether it is proper to take out the eye, (centre) of a Dahlia flower, before shewing it at an exhibition, and whether a flower so treated should be disqualified or not?

The question is asked in consequence of a dispute about the matter; one party considering it right to "take as much of what is judged to be defective from a flower as the person pleases, but, add nothing to it; whilst the other party contends, "let the flower be as it naturally grows, to be so taken from the plant, and thus exhibited.

If the latter be the condition, not even a defective petal can be allowed to be taken away without violation of the rule, in which case a pan of flowers in a perfect state would very rarely be seen. An answer in the September Cabinet will be esteemed a favor by
HOPE.

(It is certainly not only our own decided opinion, but one, we believe, pretty generally admitted amongst growers, that every Dahlia bloom having the centre taken out is totally disqualified, and that a bloom having only some one or two defective petals extracted is not disqualified, and for several reasons, a primary one of which, is, that there are several kinds of Dahlias very rarely producing blooms without an imperfect centre, the taking out of such, and causing the inner petals to close over and conceal the hollow made by taking out the eye, deceives the spectators in a very material point, being an artifice, which, (from the circumstance of their being prohibited to touch a flower,) they are not likely to discover. By the deception thus practised, a false impression of the qualities of a flower is received and subsequently a number of plants are ordered, in many cases, solely to grow for competition, at exhibitions, these when blooming, not only create much dissatisfaction, but, depending upon what appeared positively to be a good

flower, the parties being misled are thus prevented having desirable flowers to shew, and thereby excluded from having a fair chance of obtaining the prizes. We have known several instances of this sort. If the evil was not even of a greater extent, than an attempt by disguise to deceive the censors, as it might do in instances where the exhibition is of great extent, and sufficient time is not allowed, so as to have an opportunity of minutely examining into the centre of each bloom. Not only the bloom so operated upon, or stand containing such bloom or blooms, should be rejected; but the exhibition of such ever after excluded the society, if it is ascertained he previously understood such proceedings would not be tolerated. In order to prevent any disputes of this kind, there ought to be a rule relative to it, and embodied in the general rules of the society, and also printed on the schedule of particulars.

With respect to extracting defective petals, it is perfectly admissible, and to which no individual can reasonably object, as it does not make any material alteration whatever in the general character of a flower. Every grower knows that in the most desirable and perfect kinds, imperfect petals are from some causality frequently produced, the removal of which adds to the symmetry of the bloom, whilst at the same time it does not give a false impression as to its real character. When such a deformed petal is discovered in a bloom intended for exhibition, it is usual to remove it immediately and not leave it to remedy when about to be shewn.—COND.)

REMARKS.

ON CHINESE GARDENS.—The article on the Chinese Gardens is entertaining; when you have given us the whole; let me suggest to you the Gardens of another country which it would not only be entertaining but useful to obtain very minute particulars of. I allude to the winter gardens of Russia: with the few hours of day light and their severe winters, how are they managed? what degree of heat compensate for want of sun? and what plants are placed in them? these are particulars which you could obtain for us: would be most highly welcome to every gardener we should acquire more information in the department of forcing than we now possess. And every person of large fortune would be desirous of possessing a conservatory so constructed that he could walk or sit there, surrounded by shrubs and odiferous plants, in the chill, damp and dreary days of December and January when no comfort could be found out of doors, in the streets, or fields. Or lighted up in the evening it might be made delightfully attractive by bleaching with plants and flowers, beautiful statues, vases, &c., in another retreat, the open fires that heat the flues may form a room surrounded with cases of stuffed specimens of Nature, history, Books &c on the subject; in another, fossils and minerals. The centre colonade would admit of any degree of Length, or width for a promenade of affording plenty of exercise.

A WORKING GARDENER.

(We will attend to the suggestions of our Correspondent.—COND.)

It has often struck me, that fruit and seeds might be protected from the depredations of birds, by placing imitations of cats and hawks, made of wood and painted in proper colours, with glass eyes, under the bushes; and if the heads were made (like the Chinese images) to nod with the wind, it would give the appearance of life.

CLEMATIS, SEEBALDII and CLEMATIS CERULEA GRANDIFLORA.—Are found to be perfectly hardy, both kinds having stood through winter, planted at the foot of a south aspected wall, and not having any other protection. We have seen plants pushed three or four feet high this season May 30th, and in profuse bloom. Such valuable acquisitions to our hardy climbers deserve a place wherever practicable. They grow freely and bloom profusely. Nothing more is required in their treatment than to be planted on a dry

sub-soil, and have a rich loamy soil. We have recently seen some fine specimens grown in the greenhouse, and trained to various formed wire trellis's, they had a beautiful appearance; one plant, *G. Siebaldii*, had near three hundred flowers upon it. Trained up a post to a wire frame in a flower garden or along a fence round a flower bed it would be beautifully neat.

The most common method of propagating these plants is by layers. By securing each bud of the shoots to be layered at a trifling distance below the surface of the soil, they will soon push root, and by the severance of the shoot between the buds, a quantity of plants, equal to the number of buds; will be obtained. A very quick mode of increase however, is that of grafting, them into the stock of the common kind of clematis. A young shoot (not too tender) inserted into a strong stock, soon unites and grows rapidly. Inarching the kinds upon a common and vigorous sort is the most certain and quickest mode of increase, and where practicable should be resorted to. Cuttings of the old shoots are struck with difficulty, and young ones often damp off; when plants are obtained by cuttings, they are not so liable to be lost as grafted or inarched ones are, for if even cut down, by a very severe winter, or other casualty, to within a few inches of the ground they will push again, but when a plant raised by the other modes dies down to where it was inserted the kind is lost.—(COND.)

VEGETATION OF THE CAPE OF GOOD HOPE AND VAN DIEMAN'S LAND.

How I thought of you, at the Cape, that Paradise of flowers! though the first bloom was over on our arrival, yet enough was left to show what had been, nor without seeing can you imagine the profusion; there are actually no weeds. Our favorite little blue *Lobelia* is the chickweed of the place, the ditches and all damp places are filled with Cape Lillies, Heaths of all colours, the *Erica*, I believe coccinea, growing very high, *Diosmas*, *Crassulas*, &c. &c. I saw a great deal of the Cape, we were above a fortnight there, and travelled above a hundred and eighty miles into the interior. With the general appearance of the country I was disappointed, there are no trees. The silver tree, a *Protea*, is the highest indigenous plant that I saw. There are oaks in and about Cape Town, Constantia, Wynberg, &c. and indeed wherever a house is built, a few trees are planted for shade, but the country for miles has nothing higher than heath, and for the greater part of the year is sterile looking. But in the season the whole face is covered with flowers; and such a face! fancy acres of heaths, of all colours, interspersed with *Gladioles*, *Ixias*, *Watsonias*, *Babianas*, *Lachenalias*, &c. without end, all growing and flourishing in their native luxuriance. Some bunches of *Mesembryanthemums* near Sir Lowry Cole's pass were actually too bright to look at. I lived in one constant whirl of delight, that extacy in which we behold perfection. I could not see fast enough. Most of the *Ixias* were out of bloom, but their remains were like patches of a hay-field in seed, only the stems closer together. *Mrytle* hedges were eight and ten feet high; the one I saw at Sir John Herschell's must have been more, and as close and substantial as our best holly hedges. We visited Vilette's and Baron Ludwig's garden, but where the whole country is a garden, these were of less interest. The *Melia Azedarach*, with its sweet lilac blossoms, is a beautiful and ornamental tree which I did not see wild. We visited the Constantias; Great Constantia is beautiful, the soil is white, and looks like lime and sand intimately mixed. I thought of our gardener's recommendation of lime rubbish for vines.

To the Cape, Van Diemen's Land is a direct contrast. This is a country of hills, fringed to the very top, and perhaps about the thickest vegetation in the world. All is evergreen, and one dense mass of gloom. At first sight it is sombre enough, but like a dark beauty it has its charms: the wood is chiefly "gum" (*Eucalyptus*), growing to an immense height, and throwing its long white arms about in a wild Salvator style. The young "gums" are beautiful, and their new shoots of reddish brown lightening into a paler hue, and deep-

ening into myrtle green, with the light new shoots of the "wattle" (Acacia), give a rich beauty of colouring, delightful to the eye of a painter. Nature here must be painted to the life, there is nothing to soften.

There is a harshness and dryness in the texture of vegetation here that is very peculiar; even their kangaroo grass (*Anthistiria australis*), which is considered so nourishing, is hard and hairy, or rather wiry. The flowering shrubs are extremely pretty, but the flowers are very small. The *Epacris impressa* is in great quantities every where; but Heaths have not as yet been successfully cultivated here, and there are none native. The soil is very dry. But cultivation of any kind is only creeping in; a Horticultural Society has this last year been formed at Launceston, and it is to be hoped knowledge and emulation may thus be excited; hitherto sheep, sheep, from one end of the country to the other, with little more cultivation than each farm requires, land cheap, and labour dear, have caused this state of things; but the minimum price of land is now raised, and most of it is so bad that its value is far below that. Settlers must now rent from the great landholders, and the resources of the country must be made available. With science and judgement every thing and any thing may be done here: wherever English trees are planted there they flourish, but they are few and far between. The Sweetbriar is now seen in the woods, and grows to an immense size. The quantity of flowers and fruit, such as they are, is beyond belief, but there are none of the best kinds. Think of grafts here bearing the first year; an earnest of what might be. I succeeded in bringing here alive, but in bad health, the Lillies of the Valley which you gave me; four leaves are green, the only morsel in the Southern hemisphere.

NEW AND RARE PLANTS,

Recently noticed at various Nurseries and Floral Exhibitions.

(Continued from page 215.)

Acacia cuneata.—This plant, from the Swan River, has been raised at Vienna by Baron Hugel. It appears to have glaucous wedge-shaped truncated phyllodia, and solitary yellow capitula, whose peduncle is nearly half the length of the leaf. It does not entirely agree with the definition given by Mr. Bentham, both the angles of the phyllodia being tipped with a spine, the midrib forking above the middle, each of its arms being directed towards an angle, and the peduncles being much longer than the stipules, as well as much shorter than the phyllodia.

Conostylis juncea.—A rigid herbaceous plant, with leaves from six inches to a foot long, at the base of which grow heads of campanulate erect flowers. The tube of the perianth is yellowish green, covered with harsh hairs; the limb is divided into six, equal, acuminate segments, deep yellow at the base, whitish at the point, the stamens are six, and inserted equally into the throat of the perianth. It is a pretty greenhouse herbaceous plant, found on the south coast of New Holland by Baron Hugel, and raised at Vienna, where it has flowered.

Centaurea pulchra.—This most beautiful annual has been raised in the garden of the Horticultural Society from seeds collected in the north of India by Dr. Falconer. The leaves are narrow and hoary. The scales of the involucre are green, bordered with a silvery pectinated margin; the flowers are the deepest blue in the circumference and violet in the centre. No plant can be more worthy of cultivation as a hardy annual.

Dichæa ochracea.—A small Demerara plant, with narrow leaves, and pale yellow-ochre-coloured flowers. Messrs. Loddiges obtained it from Demerara.

Epidendrum Candollei.—The flowers are of a dull brown, with a dull yellow lip, striped with the same colour. It is a Mexican plant.

Erysimum Perofskianum.—This very pretty hardy annual plant, with bright orange sweet-scented flowers, has been raised in the garden of the London Horticultural Society, from seeds collected in the north of India by Dr. Falconer.

Grevillea Thelemaniana.—A beautiful New Holland shrub, with numerous racemes of crimson flowers, and narrow pinnatifid leaves. It has recently been raised at Vienna by Baron Hugel.

Glaucium rubrum.—This plant, a native of Asia Minor, and of Rhodes, is now a common biennial, under the name of *G. elegans*. It has handsome poppy-red flowers, not so large, but much richer than those of the common horned poppies.

Malva mauritiana.—This beautiful hardy annual, a native of Algiers, has lately been recovered by the French, who have dispersed it under the name of the Zebra Mallow. It has pale blush flowers, deeply stained with rich purple veins.

Oncidium unicolor.—This is a pretty little species, with a compound straggling raceme of pale yellow flowers. The singular horn on the lip, to which it owes its name of the "Unicorn," at once distinguishes it from all species previously described. It has bloomed at Messrs Rollinsons.

Papaver amoenum.—A beautiful annual poppy, raised by the Horticultural Society from seed sent from the north of India by Dr. Falconer. Its leaves are smooth and glaucous: its petals a most brilliant vermilion pink with a whitish base.

Pimelea prostrata.—This is a little shrub, with small decussating glaucous smooth leaves, hairy branches, and little lateral heads of white flowers, called in the gardens *P. novæ zelandiæ*. It is said to be a native of arid mountains in New Zealand. Its appearance is neat and pretty, but by no means showy.

Saponaria perfoliata.—An annual, with small pink flowers.

Veronica formosa.—This pretty small-leaved shrub, white-flowered, ever-green and hardy, inhabiting the highest mountains of Van Diemen's Land, has lately flowered in the garden of the Horticultural Society. Its power of existing in water only is quite extraordinary.

Wistoria atrosanguinea, synonym, *W. floribunda*.—Seeds of this new species were sent to this country from Australia, by Mr. Drummond; we have not heard of its blooming in this country yet, but specimens of its flowers have been received from Australia, and were in form like the *W. Sinensis*, but somewhat larger, and of a deep blood colour. It will doubtless prove a valuable acquisition to that class of plants; we saw a fine plant of it at the Clapton Nursery.

Celoquesia aromatica.—A greenhouse plant of some merit, not yet bloomed in this country that we have heard of. Mr. Low possesses it.

Banisteria tenuis.—A greenhouse climber with yellow flowers, and is showy when in bloom, it is well deserving a place with that interesting tribe (climbers) of plants. At Mr. Low's.

Kennedyia inophylla.—Plants of this new and fine species are now to be had at one guinea each. Its fine coloured flowers, produced plentifully, recommends it to every collection of greenhouse plants. All the *Kennedyas* are most desirable plants for training up pillars, or over a wire frame of interesting form. At Mr. Low's.

Epacris onosmifolia.—This new species has not bloomed in this country that we have heard of, we saw a plant of it at Mr. Low's.

Fabiana imbricata.—This new plant very much resembles a white-flowering *Erica*, somewhat resembling *E. Bowellii*, or a white flowering *Menziezia pohfolia alba*, but having larger flower. The habit of the plant is that of the latter; at present it is very rare, but when seen in profuse bloom it is very interesting, and will merit a place in every collection. We saw it at the Tooting nursery, it is also in the collection of Messrs. Lucombe and Pince, Exeter.

Anigozanthus Manglesii.—We saw some fine specimens of this interesting plant in bloom at Mr. Henderson's, Pine Apple Nursery. Captain Mangles R. N. has greatly enriched the collections in this country by many valuable acquisitions from the Swan River, and other places; and the floriculturalists of this country are under great obligations to that Gentleman for the disinterested zeal, and great expence, that he has incurred, therein. The flower of this species we saw in bloom, and referred to above, has a green coloured limb, and the tubular part is of a bright scarlet, and very densely clothed with red hairs. It is ornamental for the greenhouse, and equally so when grown in the open bed during summer.

Dilwynia Speciosa.—A very showy flowering new species, well deserving to be in every greenhouse; the neat yellow and red flowers produced; being very showy.

Lillium Tenuifolium.—The flowers of this species are of a deep-red, each blossom being about two inches across, of the turban form. The plants we saw at Mr. Low's were grown in the Greenhouse, and the flower stem about half a yard high; but it is very probable that it flourishes in the open border during summer. The small, neat, and fine coloured flowers, strongly recommended it to any collection.

Lillium Thunbergianum.—We saw this new species at Mr. Low's but it was not in bloom.

Arbatus procera.—This fine leaved species, Mr. Low informed us, is quite hardy, it merits a place in every shrubbery, its leaves being not only large, but of a fine green.

Arbutus tomentosa.—This is found to be hardy, it is very singularly covered with hairs, plants are offered by Mr. Low at two guineas each.

Pœonia festiva albiflora.—Mr. Low possesses this new and fine plant, the flowers are delightfully fragrant, very large, and showy, they are white, with a tinge of crimson on the edge of the petals. The price per plant is twelve guineas.

Kennedyia Nova spec.—Some time back we received seeds of this new species from Edward Young Esq., Caddington, near Newark; and have been successful in raising a plant. We have been informed by a gentleman who has seen the species in bloom, that the flowers are of a very large size, and of a fine scarlet colour; the plant is a very vigorous grower, with the habit of the *K. rubicunda*, but of more rapid growth, and producing numerous branches. It is said very far to exceed in beauty any other species yet discovered. Its large fine scarlet and numerous produced flowers, rendering it very showy.

Tweedia grandiflora.—The plant in its appearance is very like *Pœonia tenifolia*. The flowers are of a pale blue rosy purple.

Rossia.—Mr. Henderson had in bloom three new species of this neat and interesting tribe, the flowers of one was entirely yellow, another, nearly all of a dark brown with a yellow keel, each kind is very pretty and when to be purchased deserve a place in every greenhouse.

Nuttallia cordata.—This pretty species has bloomed at the Nursery of Mr. Young's Epsom. The flowers are of a pretty rose colour and when grown in contrast with the higher coloured kinds, produced a pretty effect.

Nuttallia Malvifolia.—Mr. Young also possesses this new species, but we understood it had not bloomed with him.

Epacris ceriflorus.—This very neat flowering species produces its beautiful white flowers in a dense mass, in spikes of a foot or upwards long. It ought to be in every greenhouse.

Viburnum Japonicum.—A very fine species, with leaves about ten inches long, and four broad, of a fine deep green. If this prove hardy, it will be a fine addition to the shrubbery. This species is growing in the collection at the Epsom Nursery.

Ruelzia fragrans.—A hardy evergreen Shrub. The plant has a powerful scent like Pot Marjoram. This is in the collection at Epsom.

Bauhinia forficata.—A leguminous flowered plant, recently bloomed in the stove at the Glasgow Botanic Garden. The flowers are about six inches across, of a pure white, produced on a pendant raceme of ten or twelve on each.

Clethra tomentosa.—It appears to be known to as a variety of the *Clethra admifolia*, that kind it appears inhabits the middle and northern states of America, whilst the present kind is only found in the southern states. It is a pretty flowering hardy shrub producing numerous erect, long racemes of white flowers; it well deserves a place in every shrubbery, as does the *C. admifolia*. The flowers are not only pretty, but very fragrant. The shrubs grows about a yard high, bushy; and blooms from July to the end of the summer.

Dendrobium bicamuratum.—Has bloomed in the collection of George Barker Esq., Springfield, Birmingham. It had been collected in India by Mr. Gibson, for the Duke of Devonshire, the flowers are produced in fours, small, of a dull yellow, spotted and streaked with purple.

Gongora nigrita.—Imported by S. Rucker, Junr. Esq., Streatham Hill, from Demerara. The flowers are in colour of a deep puce coloured velvet.

Spirea canefolia.—Discovered in the cold parts of India, and seeds sent to the Hort. Society. It is found to be a hardy shrub, producing numerous compact, corymbose panicles of white flowers.

Spirea vacciniifolia.—Also obtained from India and found to be hardy producing compact panicles of white flowers.

Spirea laxiflora.—Also from India and hardy. The flowers are white but are produced in loose shaggy panicles.

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 bed, &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.

(REFERENCE TO PLATE.—See next month.)

1887



Hibiscus violaceus



Siphocampylus spicata. *Penstemon gentianoides* var. *coccineus*

THE
FLORICULTURAL CABINET,

NOVEMBER 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON FLOWERING TREES AND SHRUBS.

BY CLERICUS.

THERE is perhaps no season in which the flowering shrubs of British Gardens make so brilliant a display as in May, June, and July, particularly in the latter month, from the addition of the rhododendrons and roses. In this respect we have great advantages over our ancestors, for nearly all the most beautiful of our flowering shrubs are of modern introduction. The different ornamental kinds of Ribes, the American barberries, and many other of our most beautiful shrubs, have been introduced since 1824, and two thirds of the remainder since 1810. It is amusing and scarcely credible to see how very few ornamental shrubs and low trees were known to our ancestors. In the days of Queen Ann, and of George I., almost the only ornamental trees and shrubs were variegated hollies, and a few of the commoner kinds of roses. What our ancestors wanted in the variety, and, we may add, quality, of their shrubs, was however, made up in the great quantity of each sort that was planted. High box, yew, or holly hedges, wildernesses of hornbeam, and bowers of roses, were the staple ornaments of their pleasure grounds, and a few lilacs and laburnams were introduced by those who wished it to be thought that they possessed a taste for botany. During the whole reign of Ann, according to Loudon's "Arboretum Britannicum," not above half a dozen flowering shrubs were introduced; and in

the reign of George I. not above nine or ten more. About the middle of the century, the American rhododendrons and kalmias began to be planted in English gardens ; and from that period to the present time, the taste for, and, consequently, the importation of foreign trees and shrubs have increased so rapidly, that between 1811 and 1830 above seven hundred new ornamental trees and shrubs were introduced into British pleasure grounds. The finest trees and shrubs of these introductions have also speedily become well known and in general cultivation, and instead of lingering for a century or two as formerly, in the hands of a few individuals, they are now found to spread in a few years, even before they have lost the first freshness and bloom of their novelty, into cottage gardens ; and the demand increases so fast, that collectors are at this moment in almost every unexplored region of the globe catering for the vigorous appetite that has been created.

One of the most beautiful, and, at the same time, one of the most numerous, families of flowering shrubs now cultivated in our gardens, consists of the numerous species belonging to the genus *Ribes*. Nearly all the ornamental species of this genus are of quite recent introduction. Till lately, but few persons had any idea that the genus *Ribes* included any plants worth cultivation but the common gooseberry and the red and black currants ; for though some few other species were introduced about the middle of the last century, they were not sufficiently ornamental to attract general notice. In 1812, the first really ornamental kinds of *Ribes* were introduced, viz. those with yellow flowers. The handsomest of these (*Ribes aureum*) has large golden yellow flowers, which generally appear in May, and which are succeeded by blackish yellow fruit, very inferior to the common currants of our gardens in size and flavour. The shrub grows from four to six feet high. The common yellow-flowered currant is one of the earliest flowering kinds, but there is a variety of it which does not flower till the middle of June.

In 1822, *Ribes multiflorum* was introduced ; and though its flowers are green, they are, perhaps, more beautiful than those of any other species, on account of the long and elegant drooping racemes in which they are disposed. This species flowers a fortnight or three weeks later than the other kinds, and it is one of the very few species of this genus that are found wild in Europe, it being a native of Croatia. Though a most abundant flowerer,

it seldom produces fruit : and the fruit, when it does appear, is a red currant of small size and very little flavour ; the leaves are large and handsome ; and the whole shrub, though seldom growing to a large size, forms a vigorous, healthy-looking and compact bush. It is comparatively little known ; but it is sufficiently common in the nurseries to be sold at a low price : while, as it is quite hardy, it requires very little care in its cultivation.

Ribes sanguineum, the red-blossomed currant, was introduced in 1826 ; and when we look at the immense number of these shrubs lately planted in the Horticultural Society's garden, and consider how many are scattered over the country, it seems scarcely credible that so short a time has elapsed since its introduction. The history of this shrub is rather curious ; it was discovered about fifty years ago on the north-west coast of America, by Archibald Menzies, Esq., who was surgeon and botanist to the expedition under Captain Vancouver. But though this gentleman brought specimens of the flowers to England, no farther notice was taken of the shrub ; and it was never introduced till seeds of it were sent home by Douglas in 1826. There is a variety of it now sold with flowers of a fine scarlet colour. *Ribes speciosum* was discovered by Mr. Menzies in the same manner, and specimens of it brought home, though the living plant was not introduced till 1829. The flowers of the latter plant are scarlet, and bear a slight resemblance to those of the fuchsia ; but they are too small, and too widely apart to make so brilliant a show as those of *Ribes sanguineum* ; the fruit of *Ribes speciosum* is a gooseberry, but it has no flavor ; that of *Ribes sanguineum* is a black currant, resembling in appearance and taste a bilberry. *Ribes glutinosum* is only a variety of *R. sanguineum*, with paler flowers, and a slightly viscid stem. *Ribes malvaceum* is another variety, with flowers that have a lilac tinge ; and there is another variety of *Ribes sanguineum*, which is always acknowledged to be such, and which has deep scarlet flowers.

Ribes niveum, introduced in 1826, and *Ribes cereum*, in 1827, have white flowers ; those of the latter species being sufficiently large to be showy. The leaves of *R. cereum* are round, and covered with a white waxy substance, whence the plant takes its name. *Ribes nivum* is almost the only ornamental species of the genus that has a palatable fruit ; it is one of those species which form a link between the currant and the gooseberry ; it resembles in form, colour, and manner of growth, a black currant, but when cut open it is decidedly a gooseberry. It has a very agreeable and

somewhat perfumed flavour; and though rather too acid to be eaten raw, it is excellent in pies and puddings.

Ribes punctatum has bright yellow flowers, and fragrant evergreen leaves. It is a native of Chili, introduced in 1826, and is too tender to live without a wall in England. It is yet scarce, and it has never ripened fruit in this country; though, as it throws up suckers, which no other gooseberry does, it is easily propagated. It is very ornamental, and in warm sheltered situations it is certainly well worth cultivating.

The *Escallonias* are pretty little shrubs, introduced since 1827; the flowers of which, taken separately, bear some resemblance to those of the currant. *Escallonia rubra* has red flowers, produced singly, or in very small side bunches; and *E. montevidensis* has white flowers, produced in a large handsome terminal bunch.

The family of flowering shrubs which may be considered next in beauty to the currants consists of the Barberries and Mahonias: these are very numerous, and they are all beautiful, though not half so much cultivated as they deserve to be. Every body knows the common barberry, (*Berberis vulgaris*), though but few persons are aware of its numerous varieties, the fruit of some which is sweet,—of others, seedless,—and of others yellow, white, violet, black, or purple. The barberry bears rather a bad reputation, from its alledged power of infecting corn growing near it with the mildew. Modern botanists have, however, proved that the parasitic plant, vulgarly called the mildew, which attacks the barberry, is of a different genus to that which attacks wheat.

The pretty South American barberry (*Berberis dulcis*), which was introduced, in 1831, from the Straits of Magellan, has drooping, bell-shaped, yellow flowers, hanging on long footstalks. The berries are sweet, round, and black, not unlike black currants. The plant is quite hardy and evergreen.

The Nepal barberries (*Berberis floribunda*, *asiatica*, and *aristata*) are all very handsome bushes, and produce abundance of flowers. The fruit of *Berberis aristata*, called Chitria by the natives, is dried in Nepal, as grapes are in Europe to make raisins. *Berberis dealbata* is a Mexican species, with evergreen leaves, which are of a glossy green above, and white below, and scarcely any spines. This species is very scarce and dear, it being sold last year at a guinea a plant.

The common ash barberry (*Mahonia aquifolium*) has glossy, holly-like leaves, and upright racemes of rich yellow flowers; it

is a native of North America, and was introduced in 1823. This species was ten guineas a plant as late as 1830, but plants may now be procured in the nurseries at 3s. 6d. or 5s. each. This rapid fall in the prices of new plants, and, in short, of every thing that is new, is one of the most striking effects of the diffusion of knowledge. Formerly, even so late, indeed, as the beginning of the present century, rare plants were only bought by wealthy individuals, and they retained the high prices at which they were originally sold for many years afterwards, because there was not a sufficient demand for them to make it worth while to propagate them extensively; now, no sooner is any thing new introduced, than it is known to every body, and every body wishes to possess it.

There are several other species of ash barberry, all of which are in the gardens of the Horticultural Society at Turnham Green, and all of which bear their large branches of brilliant yellow flowers in May and June.

The thorns begin to flower early in April, and continue till the latter end of June, the different species producing their flowers in succession; the earliest is *Cratægus purpurea*: this is not a handsome tree; on the contrary, it has a miserable, and rather a stunted appearance, but its flowers are remarkable for their black anthers, and the fruit for the variety of its colours, white, pale yellow, red, and purple haws being found on the same tree. *C. nigra* is another early blossoming kind, with very small black fruit; this tree is said to attract nightingales, because, according to Mr. Loudon, "it is particularly liable to be attacked by insects, and because numerous caterpillars are to be found upon it about the time that nightingales are in full song."

In May and June appear the blossoms of the common hawthorn, and those of all its numerous varieties. Perhaps no tree has produced more varieties than this. Loudon enumerates thirty kinds, and we believe there are many more. The most remarkable of these is the Glastonbury thorn, which is generally in flower at Christmas. The Glastonbury thorn is, indeed, in leaf, flower, or fruit almost all the year; and it has, generally, all three at once on it at Christmas. The original tree grows at Glastonbury; and, according to the legend, was the staff of Joseph of Arimathea, which being stuck into the ground on Christmas day miraculously took root, and instantly produced leaves, flowers, and ripe fruit. Queen Mary's thorn has drooping branches, and long fleshy fruit,

which are good to eat. The original tree is said to be still standing, and, if this be true, it must now be nearly 300 years old.

The other varieties of the hawthorn have probably originated from seedlings observed in some hedge, and transplanted into a nursery. In this manner the new beautiful bright scarlet hawthorn was discovered, and also the double-flowered pink kind, which is so ornamental in our shrubberies, both when its blossoms first expand, and are of a pure white, and when in about a fortnight they begin to take a pinkish tinge, which deepens gradually as they decay. Some of the varieties have bright yellow fruit, and in some it is quite black; in some the leaves are shaped like those of the oak, and in others they are slender and deeply cut, like those of the fern. One kind grows stiff and upright, like the Lombardy poplar, and the branches of another kind are curled and twisted together like gigantic ringlets. In some the leaves are variegated, and in others smooth and shining: in short, it is scarcely possible to set any limits to the varieties. The red-blossomed hawthorn was one of the earliest discovered, it having been found in the time of Ray; and we may easily imagine what a valuable acquisition it must have been to the slender stock of flowering shrubs possessed by our ancestors. It is somewhat remarkable that all the red-blossomed hawthorns have not been propagated from the same tree but that several red-blossomed seedlings have been found at different times, and at different places. Nearly all the other varieties appear to have been discovered accidentally; and their number is accounted for by the fact of more plants of the hawthorn being raised from seed than of any other tree, from the great length of time that the hawthorn has been used for a hedge plant. There is a double white blossomed kind very handsome.

The cockspur thorn is a noble species, and it has some singular varieties. One of these *C. crus-galli salicifolia* has a flat head, spreading like a miniature cedar of Lebanon. A dwarf sub-variety of this, which does not grow more than five feet high, is well adapted for planting in children's gardens. *C. coccinea*, or the scarlet fruited-thorn, *C. glandulosa*, and *C. punctata*, are all well worth growing in a shrubbery, or on a lawn; and when seen together, they will be found very distinct.

The principal large-fruited thorns are *Cratægus Azarolus*, *C. Aronia*, *C. orientalis*, or *odoratissima*, and *C. tanacetifolia*. These plants are all late in flowering, seldom expanding even their leaves till the latter end of May or beginning of June, and being some-

times much later. The fruit of all of them is not only eatable, but very good. *C. Orientalis* and *C. tanacetifolia* have both whitish leaves; the fruit of the first is of a brilliant coral colour, and of the latter yellow. There is a variety of the first species with fruit of a port-wine colour; and Lee's seedling variety of the latter is one of the handsomest plants of the genus. Notwithstanding the resemblance of the leaves, these two species are easily distinguished, not only by the colour of the fruit, but by their habits of growth; *C. orientalis* being a handsome spreading tree, and *C. tanacetifolia* upright-growing.

One of the late flowering varieties is *C. parviflora*, which does not flower till late in June, and which bears pear-shaped green fruit. The leaves of this species and its varieties, and of *C. virginica*, are very small, *C. cordata* is the latest flowering of all the kinds, as it rarely produces its flowers before the middle of July. There are many other species, and among others *C. microcarpa*, with its brilliant bright scarlet fruit, and *C. mexicana*, with its large yellow fruit, looking like golden pippin apples; but we have said enough to show what ornamental plants the thorns are, not only in their flowers, but in their fruit. *Cratægus*, or *mespilus pyracantha*, may be added to the above, as it is a very ornamental shrub, not only from its evergreen leaves, but from its brilliant scarlet berries, which are so abundant as to occasion the French to call it *buisson ardent*. In short, every tree belonging to the genus is worth growing; and I am glad to see that Mr. Loudon in the "Arboretum Britannicum," and Dr. Lindley in the "Botanical Register," have contrived within the last two or three years to bring ornamental thorns into fashion.

The amelanchiers, the commonest species of which is well known under the name of the snowy mespilus; the cotoneasters with their coral berries; the ornamental kinds of pyrus, including the mountain ash, the Siberian crab, the garland flowering apple-tree, and showy Chinese crab-tree; the *Photinia serrulata*, with its large showy bunches of flowers, and beautifully-tinted leaves in spring and autumn; the loquat-tree, with its large woolly leaves; the Nepal white-beam tree, and many others, deserve especial notice from the planter and landscape gardener.

Among the flowering trees of May and June may be reckoned that splendid climber *Wistaria sonsequana*, or, as some call it, *Glycine sinensis*. The flowers of this tree resemble those of the laburnum in form, but are of a delicate lilac. Nothing can exceed

the vigorous growth of this tree, or the profusion of its blossoms ; the specimen in the Horticultural Society's garden at Turnham Green extends nearly eighty yards along the wall. This splendid plant is a native of China, from which country it was brought in 1816. At its first introduction, and for a year or two afterwards, plants were six guineas each ; but they are now to be had in any nursery for a shilling or eighteen-pence.

Next to the *Wistaria* may very appropriately be placed the laburnums, which, notwithstanding their beauty, are now become so common as to be little valued. Some of these are sweet-scented and remarkably long in their drooping racemes of flowers. The purple-flowered laburnam, as it is called, though in fact its blossoms are of a dirty pink, is a hybrid between the common laburnum and the purple cytisus, and it possesses the extraordinary power of reproducing its parents. Trees of this kind in different parts of the country have been known to produce a sprig of the purple cytisus from one branch, and of the common laburnum from another, without any grafting, and yet each quite distinct.

The Judas tree (*Cercis siliquastrum*) is another ornamental tree belonging to the Leguminosæ. This tree produces its pretty pink flowers on its trunk and thick branches, and the flowers have a slight acidity that makes them form an agreeable dish, when dipped in batter and fried as fritters. The tree takes its name from its being supposed to be that on which Judas hanged himself ; but Gerard gravely assured us that this was not the case as he hanged himself on an elder.

The peat-earth plants belonging to the order Ericaceæ are a host in themselves. The rhododendrons, the kalmias, the arbutus, the heaths, and their allied species, are all so beautiful that no garden should be without them. The rhododendrons, it is well known, vary very much in the colour, though not much in the form, of their flowers, and some of the hybrids between the Nepal tree species and the common kinds are extremely splendid. The rhododendrons are generally considered American plants ; but one of the commonest kinds, *R. ponticum*, is a native of Asia Minor. The number of varieties and hybrids of this species almost exceed belief ; between thirty and forty named kinds are in the nurseries. It has been said that honey, which Xenophon tells us produced so injurious an effect on the Greeks in their celebrated retreat, was produced by the flowers of this shrub ; but others attribute this poisonous honey to the *Azalea pontica*.

Rhododendron catawbiense, so called from its principal habitat being near the head of the Catawba, is the most common American species, and it is a great favourite, from its hardiness, and its being an abundant flowerer. The hybrids raised between this species and *R. Aboreum*, the Nepal tree rhododendron, are not only very handsome, but they are much hardier than those raised between the Nepal species and *R. ponticum*; and they stood out without protection during the severe frost of 1837-8, when all the hybrids raised from *R. ponticum* were killed.

R. maximum is the tenderest of the American rhododendrons, and the longest before it flowers. The plant also is not healthy looking. It was introduced in 1736, but did not produce any flowers in England till twenty years afterwards. There are two varieties of this species, one with pure white, and the other with fragrant flowers. Besides these there are several dwarf rhododendrons with leathery leaves, and small brilliant coloured flowers.

Some of our modern botanists include the azaleas in the genus rhododendron; and it is certain that the two kinds hybridise freely together. The commoner kinds of azalea, *A. pontica*, *A. nudiflora*, and *A. viscosa*, have produced almost innumerable hybrids, some of which are very beautiful. *Rhodora canadensis*, another plant belonging to this order, is worth cultivating for the earliness of its flowering.

The Nepal rhododendrons, and the Indian and Chinese azaleas, are very beautiful, but they require the protection of a greenhouse.

The kalmias are called by the Americans, Calico flowers; a name admirably adapted to express the peculiar appearance of the flower, which is more like an artificial flower cut out of cambric, muslin, or calico, than a real one. The different kinds of whortleberry and cranberry, the heaths, and all the newly made genera formerly comprised under the genus *Erica*, the *Andromeda* and the *Arbutus*, complete the list of these plants, all of which are splendid ornaments to the British gardens in June and July. In some places the rhododendrons and azaleas have been sown in the woods, as at High Clere and Bagshot Park. At these places and at Waterer's nursery at Knaphill near Bagshot, these plants in the flowering season are completely a blaze of beauty. The rhododendrons, grafted standard high in Waterer's nursery, so as to form

small trees with drooping branches, are particularly beautiful, and would be very ornamental on a lawn.

The roses are the last of the flowering shrubs that we shall here notice, and their beauty is so universally acknowledged, that it requires very little comment. The number and variety of the roses are not, however, generally known; but it is a fact that Messrs. Loddiges, and Wood, of Maresfield, possess nearly two thousand named species and varieties.

Amidst this wilderness of sweets it would be difficult to choose, had not the whole mass been arranged by Messrs. Wood, Rivers, and others, under seventeen or eighteen different heads. Of the moss roses, there are twenty-four sorts, including the white moss, which is very delicate, and extremely difficult to keep alive, and the dark crimson moss, called the *Rouge du Luxembourg*. Of the cabbage or Provence roses there are twenty-five sorts; these were the hundred-leaved roses of the ancients; and as the flowers are, perhaps, more fragrant than those of any other species, it is from these roses that rose-water and oil of roses are generally made. The perpetual roses, of which there are fifty kinds, are most beautifully tinted with a rich glowing colour; and they are valuable for the great length of time that they continue producing flowers. There are eighty-nine sorts of the hybrid China roses, seventy of the China roses, fifty-one of the tea-scented, and twenty five of the white roses, all very beautiful and tolerably distinct. The conserve of roses, and other medical preparations of this flower, are prepared from the damask roses, of which there are twenty-five sorts, and the French or Provins roses, of which there are ninety-nine sorts. The French rose has less scent than most of the other kinds, and yet is often confused with the fragrant hundred leaved rose, from the similarity of the words Provins and Provence. The former of these names only signifies, however, a small place near Paris, where roses of this kind are grown in large quantities for the use of the Parisian druggists.

Of the climbing roses there are fifty-three superior sorts; and these, when trained on a wooden frame, or pegged down to cover a sloping bank, have a beautiful effect. The fairy roses, of which there are sixteen sorts, are very delicate and pretty; and the noisette roses, of which there are sixty-six sorts, are very beautiful. Besides these, there are Macartney roses, musk roses, Isle de Bourbon roses, Scotch roses, sweet briars, and many others.

One of the prettiest of the new roses, of 1838 is the double yellow, or rather cream-colour sweet briar. There are many other flowering shrubs well deserving of notice, which I shall notice in subsequent papers.

August, 20th 1839.

CLERICUS.

ARTICLE II.

ON THE DOUBLE YELLOW ROSE.—(ROSA SULPHUREA.)

BY ROSA.

ON this most beautiful Rose Mr. Rivers, in his *Rose Amateur's* guide remarks, "The origin of this very old and beautiful rose, like that of the moss rose seems lost in obscurity. In the botanical catalogues, it is made a species, said to be a native of the Levant, and introduced into this Country in 1629, and never to have been seen in a wild state bearing single flowers. It is passing strange, that this double rose should have been always considered a species. Nature has never yet given us a double flowering species to raise single flowering varieties from; but exactly the reverse. We are compelled, therefore, to consider the parent of this rose to be a species bearing single flowers. If this single flowering species was a native of the Levant, our botanists, ere now, would have discovered its habitats; I cannot help, therefore, suggesting, that to the gardens of the east of Europe we must look for the origin of this rose, and to the Single Yellow Austrian Briar (*Rosa lutea*), as its parent: though that, in a state of nature, seldom if ever bears seed, yet, as I have proved, it will, if its flowers are fertilised. I do not suppose that the gardeners of the East knew of this, now common, operation; but it probably was done by some accidental juxta-position, and thus, by mere chance, one of the most remarkable and beautiful of roses was originated. From its foliage having acquired a glaucous pubescence, and its shoots a greenish yellow tinge, in those respects much unlike the Austrian Briar, I have sometimes been inclined to impute its origin to that rose, fertilised with a double or semi-double variety of the Damask Rose, for that is also an eastern plant.

As yet, we have but two roses in this division; the Double Yellow, or "Yellow Provence," with large globular and very double bright yellow flowers, and the Pompone Jaune, or dwarf Double Yellow, both successively shy of producing full-blown flowers,

though they grow in any moderately good soil with great luxuriance, and show an abundance of flower-buds ; but some " worm i' the bud" generally causes them to fall off prematurely. To remedy this, various situations have been recommended ; some have said, plant it against a south wall ; others, give it a northern aspect, under the drip of some water-trough, as it requires a wet situation. All this is quackery and nonsense. The Yellow Provence Rose is a native of a warm climate, and therefore requires a warm situation, a free airy exposure, and rich soil.

At Burleigh, the seat of the Marquis of Exeter, the effect of situation on this rose is forcibly known. A very old plant is growing against the southern wall of the mansion, in a confined situation, its roots cramped by a stone pavement ; it is weakly, and never shows a flower-bud. In the entrance court is another plant, growing in front of a low parapet wall, in a good loamy soil and free airy exposure ; this is in a state of the greatest luxuriance, and blooms in fine perfection nearly every season.

Mr. Mackintosh, the gardener, who kindly pointed out these plants to me, though the latter a distinct and superior variety, as it was brought from France by a French cook, a few years since ; but it is certainly nothing but the genuine old Double Yellow Rose.

In unfavourable soils it will often flourish, and bloom freely, if budded on the Musk Rose, the Common China Rose, or the Blush Boursault ; but the following pretty method of culture, I beg to suggest, though I must confess I have not yet tried it. Bud or graft it on some short stems of the Dog Rose ; in the autumn, pot some of the strongest plants, and, late in spring, force them with a gentle heat, giving plenty of air. By this method the dry and warm climate of Florence and Genoa may, perhaps, be partially imitated ; for there it blooms in such profusion, that large quantities of its magnificent flowers are daily sold in the markets during the rose season.

The Rose has very much engaged my attention for several years, in order to ascertain by what means the evil of the buds being injured, and dropping off might be avoided, and I am now enabled to state that if the following treatment be pursued a splendid bloom may certainly, and invariably, be obtained.

The plant requires to have a good loamy soil, upon a dry substratum, moderately enriched. It must be planted against a good aspected wall, either full south or as near as circumstances admit of the latter.

The plant must be trained as is done to a peach tree, and early in summer, when the shoots are young, a suitable portion must be secured by the wall, as is done to the peach, and all others be taking clean away.

As soon as it is perceived the shoots have embryo buds upon them, a cover of canvas, or something that will cause shade, must be fixed so as to cover the entire plant.

This shading is essential to success. If the covering is placed so as to keep the rains from the border, recourse must be had to watering, also an occasioned sprinkling by means of syringe must be given over the foliage.

When the blooming is over, the shading is no longer requisite, and its removal is necessary to palitate the ripening of the shoots for next year's supply, which is an essential point to be obtained.

My first success with blooming the rose successively was by the following circumstance. A plant was growing at the south side of a vase placed on a pedestal, around which the branches were trained. At the blooming season I found all the buds on the South (sunny side) went off in the usual way, but all that portion of the plant which was on the shady side produced perfect bloom in perfection.

It appears to me to be essential to obtain well ripened wood, and then to give shade during the period from buds being formed to blooming. These being obtained success is certain. I have a plant which now annually produces a profusion of fine flowers treated in the manner above specified.

During the first summer that I trained the plant against the wall, a considerable quantity of young shoots was produced, in order to assist the shoots that had buds upon them, I cut off all others, which amounted to three parts of them, so sudden a destitution caused all the buds to drop off, but when the shoots are stripped off at an early stage this evil is entirely obviated.

Sept. 4th, 1839.

Rosa.

ARTICLE III.

ON THE CULTURE OF CLIANTHUS PUNICEUS, AS A STANDARD PLANT.

BY CLERICUS.

THE *Clianthus Puniceus* is well worthy of a place in every collection, both for its beautiful foliage and pendant racemes of red flowers. When grown as a standard, it far surpasses in beauty

and elegance any plant I have seen of its kind : I shall mention a few words regarding its culture as a standard. Select cuttings from a plant about the beginning of May or June ; the cuttings should not exceed four inches in length, and taken from the same year's growth ; recollect that the extremity or point of the cuttings must not be pinched off. After making the cuttings, allow them to remain for a day or two before potting, to dry some of the superabundant moisture from them, which is an advantage gained by the cuttings rooting two days sooner. A 32-sized pot should be filled with white sand, and the cuttings inserted therein to the depth of two or more inches ; they will strike readily in a heat of 70 or 75 degrees ; if they are covered with a bell-glass the strike will be more successful. After struck, they should be potted off separately, in thumbs or small sixties, amongst a compost of sand, leaf, loam, with a little well-decomposed cow-dung all well incorporated together ; when potted, they should be placed in a bottom heat till they have matured roots enough to support themselves. Then they should be removed, to a more airy situation, either to a greenhouse or conservatory, and great care and attention must be paid to the repotting and watering, or without, the plants will soon form a sickly, stunted appearance. For to make good standards, all side-shoots must be pinched off as soon as they appear, training the plant up with a clear stem to the necessary height required ; then, after they have attained the required height, the tops should be pinched off ; and that causes them to throw out latterals, and these latterals again stopped, makes them still to throw out the more, till at last the plants attain a most luxuriant head, richly decorated with thick but dense pale green foliage. When treated after the above method that I have laid down, then planted out in a conservatory, amongst good rich mould, one-half fresh loam, one-quarter leaf mould, and one-quarter decomposed cow-dung, along with a little vegetable mould and sand ; all these to be well incorporated together, and a pit made for the reception of the plants three feet square, by two and a half deep, filling it up with the above composts, then insert the plant, putting it about an inch deeper than it was in the pot ; then there should be a stake of durable wood procured to fasten it to. When planted out. it grows more luxuriant than in pots, and has always a more healthy appearance. When in flower, what can surpass it ? the bunches of pale red flowers hanging the one upon the other, out of a dense thicket, as it may be termed.

CLERICUS.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

AGAVE SAPONARIA. The Soap Aloe.

(Bot. Reg. 55.)

HEXANDRIA MONOGYNIA.

This species, unlike the gigantic kinds *A. americana*, &c., flowers very freely and does not then perish. The blossoms are produced on a long spike, and before opening, have the appearance of a tuberose spike, they are green outside and yellow within; each flower is about an inch across.

In Peru the plant is used as a substitute for soap. It requires but a simple treatment to induce it to bloom freely. It must be kept in the greenhouse, dry in winter, and watered on the return of spring; equal portions of loam and sand form a suitable soil in which it grows satisfactory. Agave, from Agavon, Admirable, alluding to its many useful purposes.

AMYGDALUS INCANA. Hoary leaved.

(Bot. Reg. 58.)

ICOSANDRIA MONOGYNIA.

This species has been confounded with *A. mana*, but it is very different its leaves being thickly covered with hoariness beneath, whilst the *A. nana* is smooth on both sides; the leaves of the latter are finely serrated, and the other coarsely. The flowers are of a pale rose, each blossom being about half an inch across; the shrub is quite hardy, middle sized, and has bloomed in the shrubbery of Sir Oswald Mosley, Bart., Rolleston Hall, Derby.

ANGELONIA GARDNERII. Mr. Gardner's.

(Bot. Mag. 3754.)

DIDYNAMIA ANGIOSPERMIA.

Mr. Gardener sent seeds of this pretty flowering species from Brazil to the Glasgow Botanic Garden in 1838, and plants have bloomed this summer in the plant stove; the plant appears to be half shrubby, growing erect to about three feet high; the flowers are produced at the ends of the branches, in long fracted racemes, they are of a fine purple, each having a white centre beautifully spotted with red, and being about an inch across. It is very probable it will be found to flourish well in the greenhouse, if so, it will be highly ornamental through the summer, *Angelonia*, from *Angelon*, the native name of one species.

ARISTOLOCHIA CILIATA. Fringe flowered.

(Bot. Mag. 3756.)

GYNANDRIA HEXANDRIA.

Seeds of it were sent by Mr. Tweedie, from Buenos Ayres, to the Glasgow Botanic Garden, where a plant has bloomed; it appears to flourish in the greenhouse; the stem is weakly, yet not climbing. The flower is of a greenish yellow outside, and internally of a deep purple brown, with yellow reticulations, which produce a very pretty effect; the edge of the flower has a fine fringe near half an inch long which has an interesting appearance.

BURRIELIA GRACILIS. Slender. (Bot. Mag. 3758.)

SENECOIIDEÆ. SYNGENESIA SUPERFLUA.

This genus is nearly allied to *Lasthenia*; the present and two other species were discovered by Mr. Douglas, in California. The present species is sometimes grown in our flower gardens under the name of *Lasthenia Californica*; it is a hardy annual, flowering for several successive months. The plants rise from six to nine inches high, producing numerous solitary flowers, of a fine yellow, and when in masses has a very lively and showy appearance; each blossom is rather more than an inch across. It is very useful as an edging for a flower bed or border, where the plants in the bed are of an opposite colour.

DANBENYA FULVA. Tawney colored. (Bot. Reg. 53.)

LILIACEA. HEXANDRIA MONOGYNIA.

A bulb of this singular flowering species had been sent from the Cape of Good Hope, but had probably been collected in Madagascar, or the East Coast of Africa, to Robert Barchard, Esq., of East Hill, Wandsworth. The flowers are produced in a central scape, and on a dense raceme, they are of a tawny colour, and produce little show.

ERYSIMUM PEROFSKIANUM. Treacle Mustard. (Bot. Mag. 3757.)

CRUCIFERA. TETRADYNAMIA SILIQUOSA.

A native of Persia, and is either annual or biennial; the stem rises about half a yard high, branching, each branch terminating in a long spike of fine deep orange colored flowers, similar in appearance to a single flowered wall-flower; each blossom is about three-quarters of an inch across. The plant is found to flourish much better when grown in the open ground, being rather languid when grown in a pot. It is highly ornamental, and deserves a place in every flower garden or greenhouse; we recently saw some fine specimens of it in bloom, and doubt not but it will soon become general.

ONCIDIUM TRULLIFERUM. Trowel-lipped. (Bot. Reg. 57.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Imported from Brazil, by Messrs. Loddiges', where it has bloomed; the flowers are produced numerously upon a stiff and erect scape, they are yellow, marked with red; the lip very much resembles in form a bricklayer's trowel. It is an interesting and pretty species, growing freely when cultivated in the damp stove, either in a pot or secured to a piece of wood.

LUPINUS BARKERI. Mr. Barker's. (Bot. Reg. 56.)

LEGUMINOSÆ. DIADELPHIA DECANDRIA.

This new species was obtained by George Barker, Esq., Springfield, near Birmingham, from Mexico; the flowers are produced densely upon a long spike, and are of a mixture of lilac, blue, white, and rose, in the same flower; it may be treated as a half hardy annual or as a biennial. It continues to bloom from June to the end of the season.

LELIA ALBIDA. White flowered. (Bot. Reg. 54.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

A native of the head quarters of Mexican Orchideæ, viz., Oaxaca; it is the only *Lælia* which has white flowers. It has bloomed with J. Bateman, Esq., and Thomas Harris, Esq.; each flower is about two inches across.

PART III.

MISCELLANEOUS INTELLIGENCE.

 QUERIES.

ON CERTAIN HERBACEOUS PLANTS.—A Correspondent would be glad to know where the following plants are to be obtained, and would feel obliged to any Nurseryman who may have them for sale, to state in the Floricultural Cabinet the prices.

Claytonia virginica, *Trillium grandiflorum*, *Rhexia virginica*, *Gentiana saponaria alba*, *Pulmonaria dahurica*, *Dodecathron giganteum*, *Statice sinuata*, *Alstræmeria ovata*, *Lilium catesbææ*, *Lilium Philadelphicum*.

He would also be very glad to know how *Belladonna Lilies* can be made to bloom well when cultivated out of doors.

September 23rd, 1839.

ON PREVENTING BULBS THROWING OUT SHOOTS DURING A VOYAGE.—Will you inform me through any of your correspondents, in what way roots, such as dahlias or bulbs, may be conveyed to the Antipodes, a four months voyage, so that they may not throw out any shoots in the interim.

August 26th, 1839.

S.

P. S. I suppose the voyage to commence about February or March.

ON THE CULTURE OF GERANIUMS.—In the Floricultural Cabinet for July, you promise your Subscribers to place before them the method of management of the splendid Geraniums exhibited at the Horticultural Exhibition the May preceding. I have been in anxious expectation of seeing the accomplishment of your promise in one of the two successive Numbers, but without success. Will you permit me to remind you of this engagement, which is looked forward to by, doubtless, many of your readers, and by no one with greater desire than, yours very sincerely,

A Subscriber from the commencement of your Work.

September 25th, 1839.

[Will be given in December Number.—COND.]

 REMARKS.

BIRMINGHAM GRAND DAHLIA SHOW.—The fourth of these annual exhibitions took place at the Town Hall on Wednesday and Thursday the 11th and 12th of September, and for the number of exhibitors, the distance from which the flowers were brought and their great excellence, it has never, we believe, been equalled in the kingdom. The entries for showing exceeded one hundred and fifty in number, and eighty-six stands of flowers (exclusive of seedlings) were placed for competition. Mr. Edward Davis, of Bath, an amateur, was the successful competitor for the premier prize: the blooms exhibited by Mr. Sadler, gardener to Sir Charles Throckmorton, Bart., being the next best. The weather was unpropitious, but the show was attended by a very numerous and highly respectable company. The following were the successful exhibitors:

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HH

Premier Prize—Silver Cup, value £20 manufactured by Messrs. Horton and Son, High-street)—Mr. Davis, Bath, for Diadem de Flora, Bowling-green Rival, Stuart Wortley, Evans's Wallace, Royal Standard, Contender Clark's Julia, Rosetta, Eva, Ovid, Marshall Soult, Lady Flora, Grace Darling, Topaz, Conductor, Lewisham Rival, Dodd's Mary, Springfield Rival, Lady Dartmouth, Climax, Unique, Ruby, Sunbeam and Horwood's Defiance.

Amateurs, 24 Blooms.—1. Mr. Davis, Bath; 2. Mr. Sadler, Coughton Court, Warwickshire, for Royal Standard, Virgin Queen, Ringleader, Topaz, Marquis of Lothian, Gaines's Victoria, Essex Rival, Copland's Linnæus, Knight's Perfection, Welbury Rival, Suffolk Hero, Eva, Rienzi, Unique, Springfield Rival, Climax, Dodd's Mary, Bontisholl, Forsyth's Anlaby, Lewisham Rival, Rival Sussex, Ne plus Ultra, Conductor, and Duchess of Devonshire; 3. W. Searle, Esq., Cambridge, Sarah, Middlesex Rival, Countess of Torrington, Cambridge Hero, Royal Standard, Victory, Miss Johnstone, Marquis of Lothian, Essex Rival, Springfield Rival, Lady Kinnaird, Suffolk Hero, Glory of the West, Dodd's Mary, Clark's Julia, Bowling-green Rival, Lilac Perfection, Lady Homer, Lewisham Rival, Rienzi, Unique, Hedley's Perfection, Marchioness of Lansdowne, and Robert Buist; 4. Mr. Hillier, Oxford, Metropolitan Yellow, Royal Standard, Virgin Queen, Suffolk Hero, Ruby, Alpha, Miss Johnstone, Unique, Mrs. Pierpont, Bontisholl, Lady Kinnaird, Sir H. Fletcher, Eva, Springfield Rival, Queen of Jesmond, Victory, Dodd's Mary, Middlesex Rival, Warminster Rival, Conductor, Topaz, Rienzi, and Rosalie; 5. Mr. E. Philips, Birchfield, Birmingham, Etonia, Don John, Ovid, Phillips's Marshal Soult, Jeffries's Triumphant, Duke of Rutland, Purple Perfection, Conqueror of Europe, Conductor, Hope, Scarlet Perfection, Lord Byron, Eva, Springfield Major, Mackett's Helena, Egyptian King, Middlesex Rival, Sarah, Rienzi, Sir H. Fletcher, Ruby, Glory of Plymouth, Oxford Rival, and Berkshire Champion; 6. Edmund Peel, Esq.; Mackett's Helena, Yellow Perfection, Middlesex Rival, Gaines's Victoria, Stuart Wortley, Tamworth Hero, Etonia, Topaz, Major Peel, Eva, Grant Thornburn, Dodd's Mary, Oxford Rival, Marquis of Lothian, Queen of Scots, Suffolk Hero, Cambridge Hero, Royal Standard, Springfield Rival, Conqueror of Europe, Knight's Victory, Unique, Bowling-green Rival, and Triumphant.

Amateurs, 12 Blooms.—1. Mr. Davis, Bath, for Western Rose, Springfield Major, Eva, Amato, Dodd's Mary, Grace Darling, Springfield Rival, Rosetta, Climax, Suffolk Hero, Julia and Royal Standard; 2. Mr. Lawes, Salisbury, Hylas, Bowling-green Rival, Knight's Victory, Sir F. Burdett, Queen of Sarum, Dodd's Mary, Cupped Crimson, Fisherton Champion, Duchess of Richmond, Ruby, Lewisham Rival, and another; 3. Rev. A. Newby, Tillbrook, near Kimbolton, Bedfordshire, Countess of Torrington, Amato, Dodd's Mary, Knight's Victory, Unique, Hope, Suffolk Hero, Conductor, Rival Sussex, Gaines's Primrose, Glory of the West, and Fisherton Champion; 4. W. C. Burman, Esq., Arden House, Henley-in-Arden, Hope, Sir R. Lopez, Conqueror of Europe, Marquis of Lothian, Unique, Duchess of Richmond, Purple Perfection, Eva, Lady Kinnaird, Sir H. Fletcher, Comte de Paris, and Coronation; 5. Mr. Burbury, Stoneleigh, Royal Standard, Cambridge Hero, Stuart Wortley, Sir J. Astley, Conductor, Hope, Ringleader, Etonia, Virgin Queen, Topaz, Suffolk Hero, and Duke of Devonshire; 6. Mr. Hillier, Oxford, Ruby, Suffolk Hero, Rienzi, Metropolitan Yellow, Unique, Rosalie, Conductor, Eva, Springfield Rival, Frances, and Middlesex Rival.

Amateurs 6. Blooms.—1. Rev. A. Newby, for Dodd's Mary, Sir J. Astley, Conductor, Climax, Rival Sussex, and Caliope; 2. Mr. Davis, Bath, Lady Flower, Horwood's Defiance, Julia, Springfield, Ovid, and Grace Darling; 3. Mr. Lawes, Salisbury, Dodd's Mary, Topaz, Queen of Sarum, Springfield Rival, Rival Sussex, and Lewisham Rival; 4. Mr. Sharp, of Stoke, near Coventry, Climax, Suffolk Hero, Sarah, Ne Plus Ultra, Topaz, and Rienzi; 5. Mr. Kimberley, of Pinley, near Coventry, Royal Standard, Cambridge Hero, Queen of Sarum, Ringleader, Suffolk Hero, and Advancer; 6. Mr. Mayle, of Bedford, Ruby, Climax, Eva, Mary, Glory of Kilbert, and Suffolk Hero.

Nurserymen, 24 Blooms—1. Mr. Shepherd, Bedford, for Ovid, Dodd's Mary, Victory, Royal Standard, Hope, Gaines's Queen Victoria, Amato, Cambridge Hero, Diadem de Flora, Lady Dartmouth, Conductor, Rival Queen Superb, Horatio, Springfield Rival, Unique, Coriolanus, Glory of Plymouth, Diomedé, Climax, Ruby, Egyptian King, Eva, Bowling-green Rival, and Marquis of Lothian; 2. Mr. Mitchell, Piltown, Sussex, Advancer, Diomedé, Lady Dartmouth, Climax, Miss Colt, Grace Darling, Hero of Wakefield, Lewisham Rival, Springall's Conqueror, Antiope, Queen of Sarum, Invincible, Duchess of Richmond, Ovid, Rival Sussex, Unique, Egyptian Prince, Jones's Frances, Pilate, Rienzi, Royal Standard, Maresfield Hero; 3. Mr. Cattleugh, Chelsea, Climax, Ellen of Eaton, Eva, Ne Plus Ultra, Lady Dartmouth, Springfield Rival, Unique, Columbus, Bowling-green Rival, Superb Yellow, Ovid, Hope, Mount Blanc, Metropolitan Yellow, Dodd's Mary, Egyptian Prince, Masterpiece, Knight's Victory, Flavius, Duke of Wellington, Topaz, Lord Byron, and Amato; 4. Mr. Widnall, Cambridge, not named; 5. Mr. Pamplin, Hornsey-road, London, Clark's Julia, Suffolk Hero, Contender, Premier, Victory, Royal Standard, Rosa, Virgin Queen, Ne Plus Ultra, Ruby, Don John, Ion, Duke of Sussex, Sir F. Burdett, Unique, Lady Dartmouth, Hope, Lewisham Rival, Rienzi, Amato, Mount Pleasant, Rival; 6. Mr. Bates, Oxford, Knight's Victory, Virgin Queen, Souter Johnny, Masterpiece, Cambridge Hero, Topaz, Hope, Marquis of Lothian, Horwood's Defiance, Evans's Wallace, Eva, Rienzi, Ruby Superb, Conductor, Frances, Springfield Rival, Unique, Ringleader, Pre-eminent, Dodd's Mary, Suffolk Hero, Duchess of Richmond, Magician, and Egyptian King.

Nurserymen, 12 Blooms—1. Messrs. Brown, Slough, Julia, Annot Lyle, Eva, Amato, Contender, Lewisham Rival, Ruby, Climax, Grace Darling, Unique, Springfield Rival, Hope; 2. Messrs. Mountjoy and Son, Ealing, Rival Granta, Royal Standard, Ovid, Amato, Rosa, Dodd's Mary, Lady Kinnaid, Springfield Rival, Beauty of Wandsworth, Rienzi, Unique, Egyptian King; 3. Mr. Willmer, Sunbury, Frances, Egyptian King, Dodd's Mary, Sir R. Lopes, Hero of Nottingham, Sir F. Burdett, Eva, Don John, Hope, Conductor, Duchess of Portland, Unique; 4. Mr. Shepherd, Bedford, Royal Standard, Dodd's Mary, Victory, Lady Dartmouth, Middlesex Rival, Eva, Rival Queen Superb, Hope, Conductor, Climax, Gaines's Queen Victoria, Napoleon; 5. Mr. Bates, Oxford, Unique, Suffolk Hero, Mary of Burgundy, Hope, Eva, Vanguard, Topaz, Cupped Crimson, Rienzi, Yorkshire Hero, Springfield Rival; 6. Mr. Earl, Bristol-road, Birmingham, Duchess of Portland, Horwood's Defiance, Ovid, Topaz, Don John, Conductor, Lewisham Rival, Egyptian King, Perolla, Rienzi, Eva, and Ringleader.

Amongst the Seedlings there was one which attracted the attention of the growers as having the requisites, of a most superior flower, but, on inspection by the judges, it was found to be gummed in the eye, which, had it not been detected, would have deceived the public, and therefore it becomes the duty of the committee to expose the fact. An exhibitor was also seen on the evening of the Wednesday, whilst the committee and greater part of the exhibitors were at dinner, to select some of the best flowers, from different stands and carry them away, and as the flowers exhibited are considered the property of the committee, a resolution has been passed by the committee that neither of the aforesaid persons be allowed to exhibit at their future shows.

WARWICKSHIRE FLORAL AND HORTICULTURAL SOCIETY'S EXHIBITION.—The third exhibition of the Warwickshire Floral and Horticultural Society took place, at the Town Hall. The attendance on the occasion was numerous and highly respectable, and it must be a source of great satisfaction to the Society to find that their exertions to afford the admirers of flowers an opportunity of viewing some of the choicest floral productions, are fully appreciated. The exhibition is considered to have surpassed any of those of this Society on former occasions; and we believe that so fine a display of roses was never before seen in this town.

The following is a list of the prizes awarded on the occasion.

Roses—Premier prize, Great Royal, J. Pope, and Sons.

Purple, Scarlet, and Crimson—1. Grandiflora, Mr. Tew, gardener to Edmund Peel, Esq. ; 2. Ranunculiflora, Mr. Beach ; 3. Boquet Royal, J. Gough, Esq. ; 4. Violet Blue, J. Pope and Sons ; 5. Cormin Feu, Mr. Tew ; 6. Bonnie Genevieve, Mr. Coudrey.

Blush, Pink, and Lilac—1. Duke of Devonshire, J. Pope and Sons ; 2. La Tourterelle, E. Hill ; 3. Belle Helena, Mr. Moore ; 4. Ruga, Mr. Phillips ; 5. Cabbage Provence, J. Gough, Esq. ; 6. Blush Provence, Mr. Coudrey.

White, Cream, and Yellow—1. White Hip, Mr. Dickenson ; 2. White Blush, Mr. Coudrey ; 3. Madame Hardy, Mr. Tew ; 4. Unique, H. Pope ; 5. White Damask, J. Gough, Esq. ; 6. Camellia Blanche, Mr. Tew.

Shaded, Mottled, Striped, or Edged—1. Royal Crimson, Mr. Dickenson ; 2. Ornament du Parade, Mr. Moore ; 3. One Hundred Leaved Rose, ditto ; 4. Le Triomphe, Mr. Dickenson ; 5. Rosa Mundi, Mr. Moore ; 6. Royal June, Mr. Beach.

Moss—1. Crimson, Mr. Moore ; 2. Provence, Mr. Phillips ; 3. Blush, J. Gough, Esq. ; 4. Crested, Mr. Phillips.

Cluster—1. De Meaux, Mr. Moore ; 2. Duke of Tuscan, ditto ; 3. Purple Grevillea, Mr. E. Hill ; 4. Grevillea, Mr. Phillips.

Roses, in pots—1. Seven Sisters, Mr. Moore ; 2. Provence, Mr. Coudrey ; 3. Sebastian, ditto ; 4. Tourterelle, Mr. Dickenson ; 5. Unique, Mr. Moore ; 6. Moss de Meaux, Mr. Phillips.

Pinks—Premier prize, Duke of St. Alban's, Mr. Coudrey.

Purple Laced—Duke of St. Alban's Mr. Coudrey ; 2. Sir J. Banks, Mr. Walthew ; 3. Omnibus, Mr. Coudrey ; 4. Lord Codrington, Mr. T. Barker ; 5. Brilliant, Mr. Coudrey ; 6. Prudence, Mr. E. Hill.

Red Laced—1. Bossom's Elizabeth, Mr. Coudrey ; 2. Seedling, Mr. W. T. Barker ; 3. Admiral Codrington, Mr. Coudrey ; 4. Lord Althorp, Mr. W. T. Barker ; 5. Criterion, Mr. E. Hill ; 6. Burton's George the Fourth, Mr. W. T. Barker.

Plain—1. Seedling, Mr. Brittan ; 2. Seedling, Mr. W. T. Barker ; 3. Seedling, Mr. Brittan ; 4. Union, Mr. E. Hill.

Ranunculuses—Premier prize, Lucas's Stripe, Mr. Phillips.

Purple, Crimson, and Scarlet—1. Premier, J. Pope and Sons ; 2. Emilina, Mr. Phillips ; 3. Naxara, ditto.

White Ground, Spotted and Edged—1. Thomson's King, Mr. Phillips ; 2. Seedling, ditto ; 3. Ditto, ditto ; 4. Carlo Dolci, J. Pope and Sons.

Yellow Ground, Striped, Spotted, and Edged—1. Orange Raven, J. Pope and Sons ; 2. Seedling, Mr. White ; 3. Seedling, Mr. R. C. Brown ; 4. Quaker, J. Gough, Esq.

Stove Plants—1. Clerodendrum speciosum, Mr. Dickenson ; 2. Bignonia grandiflora, ditto ; 3. Pancratium speciosum nova, D. Houghton, Esq. ; 4. Hæmanthus puniceus, ditto ; 5. Calathea Zebrina, ditto ; 6. Ruellia juncea, Mr. Dickenson.

Greenhouse Plants—1. Pimelia decussata, J. Gough, Esq. ; 2. Nerium splendens, Mr. R. Tongue ; 3. Anigozanthus coccinea, J. Pope, and Sons ; 4. Siphocampylos bicolor, Mr. J. Moore ; 5. Swansonia galegifolia, J. Gough, Esq. ; 6. Dipasacus puniceus, Mr. J. Moore ; 7. Boronia serrulata, Mr. Dickenson ; 8. Erodium incarnatum Mr. J. Moore ; 9. Cactus Jenkinsonia, Mr. Jagger ; 10. Nierembergia filicaulis, Mr. J. Moore.

Orchideæ—1. Cattleya intermedia, J. Pope and Sons ; 2. Epidendrum fragrans, D. Houghton, Esq. ; 3. Oncidium papilo, J. Pope and Sons ; 4. Bletia tuberosa, Mr. J. Moore.

Ericas—1. Gemifera, Mr. W. T. Barker ; 2. Ventricosa superba, Mr. White ; 3. Osbornii, Mr. Dickenson ; 4. Odora rosea, ditto ; 5. Vestita, fulgida, Mr. H. Pope.

Calceolarias—1. Arborea maculata, Mr. Jagger ; 2. Fine Lake, Mr. Moore ; 3. Mirabilis punctata, Mr. Phillips ; 4. Fulgida, Mr. J. Moore ; 5. Guttata, J. Gough, Esq. ; 6. Virgin Queen, Mr. Jagger.

Geraniums—1. Jewess, Mr. Dickenson; 2. Prima Donna, ditto; 3. Fosteri rosea, ditto; 4. Foster's Alicia, Mr. Moore; 5. Chef-d'œuvre, Mr. Dickenson; 6. Garth's Perfection, ditto; 7. Oliver Twist, ditto; 8. Invincible, ditto; 9. Miller's Adonis, Mr. Moore; 10. Alexandrina, Mr. White.

Herbaceous Plants—1. *Alstroëmaria aurea*, D. Houghton, Esq.; 2. *Spirea arancus*, Mr. Moore; 3. *Delphinium Barlowii*, Mr. Dickenson; 4. Mule Pink, Mr. White; 5. *Phlomis Semia*, Mr. J. Moore; 6. *Iris Clarimond* Mr. Dickenson.

Frame Plants—1. *Lillium eximium*, Mr. Phillips; 2. *Campanula muralis*, Mr. J. Moore; 3. *Verbena Nivenii*, Mr. Jagger; 4. *Lychnis fulgens*, Mr. Moore; 5. *Campanula garganica*, Mr. Gough; 6. *Verbena Tweediana*, Mr. Dickenson.

Tender Annuals—1. *Thunbergia Alata*, Mr. Baylis; 2. *Rhodanthe Mangesii*, J. Gough, Esq.; 3. *Martynia propisidea*, Mr. Izons; 4. *Clintonia pulchella*, Mr. H. Pope.

Hardy Annuals—1. *Collinsia bicolor*, Mr. Coudrey; 2. *Cladanthus arabicus*, ditto; 3. *Schizanthus Priestii*, ditto; 4. *Iberis umbellata* ditto.

Pansies in Pots—1. Fair Maid of Perth, Mr. Earl; 2. Raphael, ditto; 3. Edgbaston Hero, Mr. Coudrey; 4. Royal Purple, ditto; 5. Lilac Perfection, ditto; 6. Helena, ditto.

Panzies (collections), 24 Blooms—1. Mr. Earl, Diomede, Cupid, Widnall's Belzoni, Widnall's Eliza, Chimpanzee, Lilac Perfection, Earl's Beauty of Edgbaston, Lady Ann, *Purpurea grandiflora*, Earl's *Cerulea grandiflora*, Lord Napier, Lord Warwick, Widnall's Don John, Venus, Apollo, Raphael, Earl's Laura, and seven Seedlings; 2. Mr. Coudrey, Edgbaston Hero, Beauty of Edmonton, Clara, Thompson's Victoria, Lady Sondes, Juliet, Royal Purple, King of Pansies, Masterpiece, Hamlet, Duchess of Kent, *Crocea superba*, Admiral Codrington, Dauphin, Lord Calthorpe, Lilac Perfection, Lady Peel, Thompson's Venosa, Rainbow, *Lutea purpurea*, Pluto, Corinne, Premier, and Queen of Heartsease; 3. Messrs. Pope and Sons, Seedling, Tamworth Hero, Camilla, Goliath, *Purpurea grandiflora*, Sultan, Maria, Beauty of Ealing, *Sulphurea elegans*, Maria (new), Rainbow, Seedling, Victoria, Masterpiece, Seedling, Climax, Vesta, Carlo Dolci, Silenus, Miss Malcolm, Betsy, Belzoni, Diomede, and Othello; 4. Mr. Walthew.

Ditto, 12 Blooms—1. Mr. Earl, Chimpanzee, Lilac Perfection, Apollo, Raphael, Earl's *Cerulea grandiflora*, Thompson's King, Fair Maid of Perth, *Purpurea grandiflora*, and four Seedlings; 2. Mr. Coudrey, Hero of Edgbaston, Masterpiece, Daphne, Lord Calthorpe, Thompson's Victoria, Clara, Venosa, Lady Sondes, King of Pansies, Pluto, Beauty of Edmonton, and Corinne; 3. Mr. Walthew; 4. Mr. E. Hill, Seedling, Warwickshire Lad, Widnall's Amato, Widnall's Eliza, Dauphin, *Purpurea grandiflora*, Lilac Perfection, Cupid, Widnall's Victoria, Zoe, Duchess of Buccleugh, Queen Adeliade, Widnall's Guido; 5. J. Pope and Son's, Seedling, Tamworth Hero, Camilla, Goliath, Beauty of Ealing, Maria, Climax, *Purpurea grandiflora*, Masterpiece, Belzoni, Dorothea and Alpha.

Ditto, 6 Blooms—1. Mr. Earl, Earl's Beauty of Edgbaston, Lord Napier, Antionette, *Purpurea grandiflora*, Bellona, and Seedling; 2. Mr. Coudrey, Page's Eclipse, Edgbaston Hero, Lady Sondes, Lord Calthorpe, King of Pansies, and Beauty of Edmonton; 3. Mr. E. Hill, Daphne, Widnall's Amato, Widnall's Eliza, Widnall's Victoria, Cupid, and *Purpurea grandiflora*; 4. Messrs. Pope and Son's, Sutton, Tamworth Hero, Seneca, Camilla, Hero of Surrey, and Apollo; 5. Mr. Phillips, Lord Warwick, Raphael, Lady Anne, *Rotundifolia*, Phoebus, and Fair Maid of Perth.

Cut Specimens—1. J. Gough, Esq.; 2. Mr. Dickenson; 3. Mr. White; 4. J. Gough, Esq.; 5. Mr. Coudrey; 6. Mr. Dickenson.

Noesgay, or Groups of Flowers—1 and 2. Mr. Coudrey.

Plants not in Bloom, but remarkable for fineness of growth, &c.—1. *Cycas revoluta*, J. Pope and Sons; 2. *Charwoodia Australis*, ditto; 3. *Aloe Africanus*, Ditto.

Unclassed Specimens—1. *Cytisus nigricans*, Mr. Dickenson; 2. *Azalea* (early red), Ditto; 3. *Rhododendron hirsutum*, Ditto; 4. *Buddlea globosa*, J. Pope and Sons.

ON AN AMERICAN ALOE, &c.—If you think this worth putting into your pleasing publication, I beg you will; Mr. Bamford Hesketh, of Gwrych Castle, eighteen years ago, pulled down an old hot-house, in which there was an American Aloe, (then about sixty years old,) not considering it any ornament in the new house, it was laid against a south wall in the garden in its old decayed box, where it has remained ever since without ever having been matted or covered; last winter, 1838, it was a little pinched, but it quite recovered its appearance in the summer, and is now as healthy and vigorous as it ever was.

Can the following be accounted for? I sowed sixpennyworth of Hollyhock seed, and transplanted them, they all turned out yellow and double. An answer is solicited from some reader of the Cabinet.

Abergele, August 19th, 1839.

J. B. H.

NEW PLANTS.

Angræcum armeniacum.—Orchidaceæ.—A native of Seirre Leone, bloomed at Messrs. Loddiges; the flowers are of an uniform apricot colour, produced closely, arranged on a horizontal lateral spike. (Bot. Reg.)

Malachenia clavata.—Orchidaceæ.—From Rio; it has bloomed with R. Bateman, Esq.; the flowers are of a dull green, spotted with purple. The scape rises about nine inches. (Bot. Reg.)

Senecio odoratus.—Why called "Sweet scented?" for it is scentless. The leaves are like an evergreen shrub; the plant rises to two feet high; the flower heads are yellow, small, rayless, and arranged in corymbose panicles. It is a native of New Holland. (Bot. Reg.)

Eurybia glutinosa.—From Van Dieman's Land; it is an erect growing shrub, much the appearance of the Rosemary; the flowers are produced in corymbose heads, the starry ray of each blossom is of a clear pale violet colour. It is a good additional conservatory plant.

Portulacea grandiflora; *rutila*.—A beautiful variety of this pretty flowering greenhouse perennial plant; the flowers are of the richest crimson, more bright than *P. Gillesii*, and about as large as half-a-crown when full blown.

Stenochilus longifolia.—From New Holland; it forms a small bush; each flower is about an inch long, of a dullish green-red colour.

Stenochilus incanus.—From New Holland; it forms a grey bush, looking like an olive, or some leafless acacia; the flowers are solitary, a little more than an inch long, of a dull green colour.

Asteracantha longifolia.—A handsome flowering greenhouse herbaceous perennial plant; it forms a bright rich green bushy plant, bearing numerous whorls of gay blue labiate flowers.

Cytisus Weldenii.—The flowers are produced in erect racemes; they are of so deleterious a quality that the scent will produce headache.

Nepeta salvicefolia.—An Himalayan perennial plant, producing its flowers in long stalked cymes, they are white, and of little beauty.

Ipomea longifolia.—Stems erect, not twining, the flowers grow singly in the axils of the leaves; they are white with a delicate noyca scent, and as large as one of *Calonyction bona nox*. The plant is a perennial, with fleshy tuber like root, and if treated as is done with the *dahlia* root, will bloom freely in the open border.

Solanum candidum.—A noble looking shrubby plant, with leaves a foot long and nine inches broad, producing clusters of large and handsome white flowers. It has bloomed in the collection of George Barker, Esq., by whom it had been received from Mexico.

Nuttallia Malvæflora.—The flowers are of a pale pink colour; The plant grows about half a yard high, and deserves a place in every flower garden; it has bloomed in the Epsom Nursery.

REFERENCE TO PLATE FOR OCTOBER.

ROELLA ELEGANS.—The plant grows about nine inches high, bushy, and blooms very profusely; the beautiful and numerous flowers produce a very fine effect, no collection of stove plants, or in a warm greenhouse, ought to be without it; it blooms for nine months in the year.

Our figure represents only a single branch, but the plant seldom exceeds nine or ten inches in height, and forms a peculiarly neat and symmetrical object. Although its habit appears to be herbaceous, we have never observed it destitute of stems or leaves, so that these are evidently produced in constant succession. It is probable that the plant is suffruticose; but neither its superficial aspect nor a close examination warrant us in making such an assertion.

As its general mode of growth seems to be different from most other herbaceous stove plants, some variation from the usual course of treatment is necessary in its cultivation. With regard to soil, it prefers a sandy loam, with a very trifling addition of heath-mould. The smallest pot into which the roots can be inserted, without undue compression, will be the most suitable, as too much pot-room is decidedly prejudicial. As with other stove plants, a period of dormancy is beneficial; still it must be supplied with water during the entire season, and will not be injured by being continually subjected to a moderately high temperature. Indeed, if kept in a hothouse, it will flower during the whole of the winter months. Especial care should be taken to place it in a position alike free from the shade of other plants and the droppings from them or from the roof of the house, caused by the condensation of vapour, or admitted from the exterior surface. It should be kept on a dry stage or shelf; but a slightly humid atmosphere will be rather propitious than otherwise.

Seeds are liberally matured, and germinate successfully if sown in very light soil in shallow pans, and these plunged in a moderate bottom heat. Cuttings also succeed very well under the ordinary treatment, with all due precaution in preserving them from superabundant moisture.

FUCHSIA WORMALDII.—A very pleasing plant of this celebrated family; we have never seen it bloom in the open bed, there it grows too much into foliage, but in a pot, rather confined, it blooms freely, if kept in an airy part of a greenhouse.

SALVIA CONFERTIFLORA.—A native of Brazil. The flowers are of the woolly section, and are produced in a pendant raceme, and though small, being bright, are pretty. The plant grows several feet high, having large woolly leaves eight inches long, and five or six broad. The plant will flourish either in the greenhouse, or open border in summer, but blooms best in the former, being of a very vigorous habit; in the open border it produces too much foliage.

LOBELIA RAMOSA.—A very highly ornamental plant for the greenhouse or open border in summer; it grows to four or five feet high, produces very numerous spreading branches, which flower profusely. It deserves a place in every collection, it grows rapidly and is easily propagated.

REFERENCE TO PLATE.

HIBISCUS VIOLACEA.—Another of the fine introductions into this country from the Swan River, by Captain Mangles, R. N. We recently saw it in fine bloom at Mr. Henderson's Nursery, Edgware Road, London; it was grown in a cool place in their plant stove, it appears that it would flourish and bloom well in a greenhouse, and would be one of the most interesting plants for culture there; the plant is very neat in its growth even without flowers.

SIPHOCAMPYLUS SPICATA.—This species is much neater in growth than the *S. bicolor*, it blooms much more abundantly, and its bright yellow flowers are very showy. The plant deserves a place in every greenhouse; it will, as well as the other species named, thrive in the open air, trained against a trellis or south aspect wall, and are well worth cultivating.

PENTSTEMON GENTIANOIDES var COCCINEUS.—This splendid kind has been raised by Mr. Lowe, of the Clapton Nursery, from Mexican seeds, and of whom we procured plants, being so superior a variety. The plant is as hardy as *P. gentianoides*, and blooms as profusely; it deserves a place in every flower garden.

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 have 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 have 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 of 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 *Dahlia* 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 successively planted, (see Articles on in former numbers.

Fuchsias and greenhouse plants intended to be inured to the open air, will require to have protection at the roots, &c.

Tubers of *Commelinas*, 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.

In taking and potting greenhouse plants &c. that have been grown in the open ground during summer, do not head them down entire as it would cause a production of fresh shoots, which being weak, from the season of the year, often perish during Winter, it is best to head them only partially.

Plants of *Rhododendrons*, *Persian lilacs*, *Azaleas*, *Roses*, &c. intended to force into bloom by Christmas, should immediately be taken in for the purpose.

Neapolitan Violets should be placed in a cool frame to get into bloom early. As should be done too with pinks, &c.

Book 1039



Erysimum Perofskianum.



Portulacca grandiflora, var. rutila.



Fuchsia Chandlerii.

THE
FLORICULTURAL CABINET,

DECEMBER 1st, 1839.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON TAKING IMPRESSIONS OF FLOWERS, &c., BY THE PHOTOGENIC PROCESS.

BY FLORA.

THIS new mode of taking drawings of flowers having created considerable excitement in the floral community. I forward the particulars of it (as given in the Magazine of Natural History), for insertion in the Floricultural Cabinet. I have tried it and find it give a very correct representation of the specimen.

The operation is a little tedious as to its chemical preparation, but when once practised is done very readily, it is well worth adopting, especially to obtain a correct form of what is desired.

The mode of fixing the images of the camera obscura, and copying engravings, by means of the chemical action of light on paper prepared with a solution of chloride of silver, has attracted so much notice, and produced so much popular excitement, that a few observations on this interesting process will not perhaps be considered out of place in your magazine. I venture to occupy your pages with the less reluctance, because I feel that the application of this heliographic or photogenic art will be of immense service to the botanist, by enabling him to procure beautiful outline drawings of many plants, with a degree of accuracy, which, otherwise, he could not hope to obtain.

That light will act on chloride of silver is by no means a novel discovery, and paper prepared with it was long ago used by Ritter

and Wollaston, in testing the chemical action of the rays of the solar spectrum ; still, in this country it was not, I believe, applied to any purpose likely to be of use to the naturalist and traveller, until brought into notice by the researches of Mr. Talbot. It is not a little amusing to observe how many pretenders to the discovery have started up since the announcement of Mr. Talbot's discovery, and that of M. Daguerre in France. The latter gentleman has, through M. Arago, at a late meeting of the French Institute, announced his mode of preparing a sensitive paper, far exceeding that of Mr. Talbot in delicacy, but otherwise possessing the same property of indicating intensity of light by depth of colour, and consequently differing from that marvellous preparation which he is said to possess, and which represents shadows by depth of colour, precisely as in nature.

M. Daguerre prepares his heliographic paper by immersing a sheet of thin paper in hydrochloric ether, which has been kept sufficiently long to be acid ; the paper is then carefully and completely dried, as this is stated to be essential to its proper preparation. The paper is next dipped into a solution of nitrate of silver (the degree of concentration of which is not mentioned,) and dried without artificial heat in a room from which every ray of light is carefully excluded. By this process, it acquires a very remarkable facility in being blackened on a very slight exposure to light even when the latter is by no means intense ; indeed by the diffused day-light of early evening in the month of February. This prepared paper rapidly loses its extreme sensitiveness to light, and finally becomes not more readily acted upon by the solar beams than paper dipped in nitrate of silver only. M. Daguerre renders his drawings permanent by dipping them in water, so as to dissolve all the undecomposed salt of silver.

This process is very inconvenient, for many reasons, among which are the difficulty of procuring, as well as the expense of hydrochloric ether ; on this account I prefer Mr. Talbot's process, although it is to be regretted that this gentleman has not stated more explicitly the proportions in which he uses the ingredients employed in the preparation of his sensitive paper. I have performed a set of experiments on this subject, and can recommend the following proportions as the most effective and economical. Two hundred grains of common salt are to be dissolved in a pint of water, and sheets of thin blue wove post paper saturated with the solution, which, for this purpose, should be poured into a dish,

and, the paper being immersed, the application of the solution to every part should be insured by the use of a sponge. The paper is then to be removed, drained of its superfluous moisture, and nearly dried by pressure between folds of linen or bibulous paper.

Two hundred and forty grains of fused nitrate of silver are then to be dissolved in twelve fluid ounces of water, and this solution is to be applied by means of a sponge to one side of each sheet of the previously prepared paper, which side should be marked with a pencil, so that when the paper is fit for use the prepared side may be distinguished. The sheets of paper are then to be hung upon lines in a dark room to dry, and when nearly free from moisture, their marked sides are to be once more sponged over with the solution of silver, and finally dried; they are then to be cut into pieces of convenient size, and preserved from light, or even too much exposure to air, by being wrapped up in several folds of brown paper, and kept in a portfolio.

The proportions above recommended are sufficient for the preparation of a quire of the kind of paper alluded to; if more of the salt of silver were used, the paper would indeed become darker by the action of light, but its expense would be proportionally increased; and when prepared in the manner directed, it assumes by less than a minute's exposure to the rays of the sun, a rich mulberry brown tint, of sufficient intensity to define an outline very beautifully, which indeed is all that is required.

To use this paper, the specimen, of which a drawing is required, is removed from the herbarium, placed on a piece of the paper, and kept *in situ* by a pane of common glass pressed by weights; a piece of plate glass, however, is preferable, as it is sufficiently heavy to press the plant close to the paper. The whole is then placed in the sunshine, and in less than a minute all the uncovered parts of the paper will assume a rich brown tint. The paper should then be removed from the direct influence of the sun, and placed in a book until the drawing be made permanent: the specimen, quite uninjured by the process, may then be replaced in the herbarium, and the drawing of another taken, and so on. So rapidly is this process executed, that twenty-five or thirty drawings may be obtained in an hour, providing we are favoured with a direct sunbeam; if, however, we have only the diffused day-light five or ten minutes, and sometimes even more, are required to produce a drawing with well defined outlines.

If drawings of recent plants be required, specimens of proper size should be cut, and if not too rigid, placed on a piece of paper, and kept in a proper position by means of a pane of glass, as in the case of dried specimens ; but if the plant be rigid, the specimens should be placed for twenty-four hours between folds of blotting paper, under a heavy weight, before placing them on the sensitive paper. Having obtained as many drawings as are required, the next thing is to fix them, so that their otherwise evanescent character may not deprive them of their value. For this purpose place them in a dish, and pour cold water over them ; allow them to soak for ten minutes, and then transfer them to, or sponge them over with, a solution, made by dissolving an ounce of common salt in half a pint of water, to which half a fluid ounce of the tincture of sesqui-chloride of iron has been added. The drawings thus prepared may be dried by pressure between folds of linen, and exposure to the air ; and may then be examined without danger. On looking at them, every one must be struck with the extreme accuracy with which every scale, nay, every projecting hair, is preserved on the paper ; the character and habit of the plant is most beautifully delineated, and if the leaves be not too opaque, the venation is most exquisitely represented ; this is particularly the case with the more delicate ferns, as *Polypodium Dryopteris*. Among those classes of plants which appear to be more fitted than others for representation by this process, may be ranked the ferns, grasses, and umbeliferous plants ; the photogenic drawings of the former are indeed of exquisite beauty.

The fact of the object being white on a brown ground does not affect the utility of this mode of making botanic drawings ; indeed I almost fancy that their character is better preserved by this contrast to tint, than by a coloured outline on a white ground. Every one will be fully aware of the value of this process to the botanist, in obtaining drawings of rare plants preserved in the herbaria of others, and which he would otherwise have probably no means of obtaining.

If the drawing of a tree or a large shrub be required, a box blackened inside, having a hole at one end about one and a quarter inch in diameter, must be provided ; in this hole should be placed a lens of five or six inches focus ; if one of longer focus be used, the dispersion of light becomes too great to insure an accurate representation. When the tree or shrub is well illuminated by the solar beams, the lens should be presented towards it, at a distance

varying of course with the height of the object. A piece of cardboard should then be placed in the box, a little beyond the true focus of the lens, and the former until a well-defined bright image of the tree, etc. is formed on the card, of course in an inverted direction. The box is then to be placed on any convenient support in this position, and a piece of the prepared paper fixed on the card, the lid of the box is then to be closed, and the whole left for half an hour, at the end of which time a beautifully accurate outline of the object will be found on the paper, which is then to be rendered permanent in the usual manner. It is obvious that this plan is unavailable on a windy day, on account of the branches of the tree, &c. being continually moving, so that it is of far less use to the botanist than the above described process for obtaining drawings of small specimens.

FLORA.

ARTICLE II.

LONICERA PERICLYMENUM.—HONEYSUCKLE OR WOODBINE.

BY CLAUDIA.

It received the generic name of *Lonicera*, as a compliment from Plumier to Adam Lonicer, a physician at Frankfort. We name it Woodbine, because it winds itself as it were in wedlock to every tree and shrub in its neighbourhood, which it graces by its well attired branches in return for the support it borrows; from hence it is styled the Bond of Love.

“The woodbines mix in am’rous play,
And breath their fragrant leaves away.”

In the time of Edward the Third, it appears to have been emblematical of true love, as Chaucer, the father of English poetry, says,

“And tho that were chapèlets, on her hede,
Of fresh wodebind, be such as never were
To love untrue, in word, in thought, ne dede;
By ay stedfast; ne for plesance ne fere,
Tho that they shulde hir hertes all to tere,
Woud never flit, but ever were stedfast,
Till that hir lives there asunder brast.”

This climbing plant always turns from east to west, and so firmly does it hold its supporter in embrace, that we often see young

trees and branches indented like a screw by the pressure. As the gentle Desdemona clung to the dark warrior, so have we seen the delicate and supple stalks of the woodbine endeavour to embrace the trunk of the sturdy oak, and in the bold attempt it is often seen thrown off to perish on the ground, unless caught by humbler shrubs, who seem proud to display the flowery festoons which the monarch of our woods had rejected. So have we seen modern Desdemonas turn from support within their reach, aspiring to climb by means too large for their grasp; they have been drawn up, in weak hopes, by a slight hold, which the first winds severed throwing them to the earth, too feeble to catch the most lowly plant.

We love to see shrubs "o'er-canopied with luscious woodbine," but in the oak of the forest its beauties wither in the shade of its too grand supporter.

The name of Honeysuckle, we presume, was given to this plant, from the trick of children, who draw out the trumpet-shaped corollas from the calyx, to suck the honey from the nectary.

This flower is what is termed a tubulose nectary, and the sweet liquid laying at the bottom is secure from the reach of the industrious bee; but the hawk-moth, a species of the sphinx, hovers over these flowers in the evening, and with its long tongue extracts the honey from the very bottom of the flower. Other insects that have not the advantage of so lengthened a tongue, tap the bulbs of the flower, by making a puncture towards the bottom, and then revel in the luxurious sweet.

The nectary of a flower is that part of the blossom which contains a liquid honey, and we are inclined to think that this saccharine juice is distilled from the plant, and conveyed to the nectary for the double purpose of giving nourishment to the parts of fructification and decomposition to the farina.

"These, nature's works, the curious mind employ,
Inspire a soothing melancholy joy."

The woodbine has a light and elegant, but negligent air, better calculated to ornament rural groves than to embellish stately gardens, and a more suitable climber for the rustic porch than the modern portico. Cunningham has given it to the Cottage of Content.

"Green rushes were strewed on her floor,
Her casement sweet woodbines crept wantonly round,
And decked the sod seats at her door."

The perfume of the honeysuckle being of the most agreeable kind, it should be frequently met with in the shrubbery; when planted near the fore-ground it ought to be kept as a shrub, which, as well as giving neatness, ensures a succession of flowers. In the wilderness walks, it should have liberty to climb the trees, and hang its wreaths from branch to branch; and where the ivy gives verdure to the bare trunk, there should the woodbine display its blossoms and shed its odours; as also over the rural arbours of the present day, as it did o'er those of Shakspeare's.

— — — — — “Beatrice, who e'en now
Is couched in the woodbine coverture.”

MUCH ADO.

The nurserymen of this country now offer us many distinct species of the *lonicera*, besides many varieties of the common woodbine. The dutch honeysuckle, *Lonicera Belgica*, may be trained with a stem, and formed into a head like a tree; the flowers of this variety are of a reddish colour on their outsides, and yellowish within, of a very delightful odour. There are two varieties of the Dutch honeysuckle, one of which is called the Long blowing, as it blossoms in June, July, and August; the other succeeds it, and is therefore called the Late Red-blowing Honeysuckle, *L. serotina*. Both of these should be planted in considerable quantities. The latter kind has only been introduced about a century; for in 1715 it was esteemed a great curiosity, and is supposed to have been first brought to this country by the Flemish florists, who were then in the habit of coming over annually with plants for sale.

The Virginia trumpet honeysuckle, *Lonicera sempervirens*, was cultivated in this country by John Tradescant, jun. as long back as 1656, and although it is without odour, it is a desirable evergreen climber, the bright scarlet flowers being so ornamental from May to August. There is a new scarlet flowered variety very superior to the old kind which deserves a place in every shrubbery, trellis, or harbour. This kind of honeysuckle requires a south aspect, and a sheltered situation. The branches being weak and rambling, it is generally trained to a wall; but it has a better effect when its branches are interwoven with the cypress, or any other evergreen, which will shelter it, from the north, and support its gay trumpets to advantage.

The common honeysuckles will grow in almost any soil or situation, and there are few inmates of the shrubbery more desirable than these odiferous stragglers, which perfume the air to a great

distance, particularly in the morning and evening. They are easily propagated, either by layers or cuttings; but the latter are preferred. The cuttings should have four joints, three of which should be buried in the earth, and the fourth above the surface, from which the shoots are produced. September is the best month for planting the woodbine cuttings. How greatly would our hedges be improved by a few cuttings being stuck in the ground; how little the trouble, the expence none,—but the delightful air would well repay the labour.

We should have passed over the medicinal qualities of this plant, had we not accidentally opened the work of a student in physic, who flourished in London, in the year 1681; and as we conclude it is but little known to the students of 1839, we extract it for the sole purpose of benefiting the faculty—*by a laugh*.

This learned Æsculapian author says, under the head 'Woodbind,' "It is a plant so common, that every one that hath eyes knows them; and he that hath none cannot read a description if I should write it. Doctor Tradition, that grand introducer of errors that hater of truth, that lover of folly, and that mortal foe to Doctor Reason, hath taught the common people to use the leaves of flowers of this plant in mouth waters; and by long continuance of time hath so grounded it in the brains of the vulgar, that you cannot beat it out with a beetle. All mouth waters ought to be cooling and drying, but honeysuckles are cleansing, consuming, and digesting, and therefore no ways fit for inflammations; thus Doctor Reason. And, if you please, we will leave Doctor Reason awhile, and come to Doctor Experience, a learned gentleman and his brother. Take a leaf and chew it in your mouth, and you will quickly find it likelier to cause a sore mouth, or throat, than to cure it. It is an herb of *Mercury*, and appropriated to the lungs; the celestial *crab* claims dominion over it, neither is it a foe to the *Lion*; if the lungs be afflicted by *Jupiter*, this is your cure."

The leaves of the woodbine are the favourite food of the goat hence the French have named this plant, *Chevre-feuille* (Goat's-leaf.)

ARTICLE III.

REMARKS ON SUPERB PINKS.

BY MR. BENJAMIN WILLIAMSON, MANOR STREET, CLAPTON.

HAVING frequently seen applications in your Floricultural Cabinet, for a list of the best Florist's flowers, and where they may be purchased; in reply to which, I beg to state, that I am a great admirer of Florist's flowers in general, but a principal object of my attention is turned to that beautiful flower the Pink (which I am proud to see taking so prominent a station in the minds of the Floricultural World,) and which I spare no trouble to obtain, as I generally endeavour to procure every good sort. Having visited many places and having had an opportunity of seeing many growers, I can safely state, that I never met with any to excel what are grown at Woolwich and its Neighbourhood, either as a Collection, or for Blooming: as a proof of which, I beg to refer to the Metropolitan Show on the 26th of June last, when three prizes out of four, were taken by the Woolwich Growers, the first was awarded to Mr. Norman; the second to Mr. Ibbett; and the fourth to Mr. Ward; all of whom reside at Woolwich. Being myself an Amateur Grower, I consequently grow none for sale, and when in want of any Plants, I apply to Mr. Ibbett of Woolwich, who invariably is sure to supply me with the best sorts, and perfectly correct under their proper names, I can therefore without hesitation recommend him. The following are the best sorts in cultivation that I can recommend to notice, and can be obtained of him at the proper season, from the latter end of September till the beginning of November.

Creed's President.
 Deakin's Burdett.
 Knight's Lady Auckland.
 " Emma.
 Bexley Beauty.
 Norman's Queen Victoria.
 " Defiance.
 Knight of Henley.
 Miss Cheese.
 Ward's Queen.
 Weeden's Queen Victoria.
 Young's Joe Miller.
 Clark's Roseana.
 Barrett's Conqueror.

Dry's Earl of Uxbridge.
 Cousin's Victoria.
 Knight's Lord Brougham.
 Bridge's Queen.
 Ibbett's Triumphant.
 Clark's ditto
 Marshall's Defiance.
 Barlow's George IV.
 Mann's Dr. Summers.
 Aker's Lord Brougham.
 Unsworth's Omega.
 Hopkin's One in the ring.
 Earl of Cheltenham.
 Seal's Miss Austin.

Hardstone's Adelaide.

“ No. 1.

Wilmore's Queen Victoria.

Eldridge's Superb.

Smith's No. 88.

Any of the above can be obtained from Mr. Ibbett, (Florist,) Mount Pleasant, Woolwich, as also a splendid collection of Carnations, Picotees, Ranunculuses, &c.

Should you think the above worthy your notice in your Cabinet, I shall feel great pleasure at all times in forwarding any useful information.

B. WILLIAMSON.

[We shall feel much obliged by any further communications our respected Correspondent may favor us with.—COND.]

ARTICLE IV.

ON THE CULTURE OF THE CARNATION.

BY DIANTHUS.

I HAVE been a grower of that lovely plant the Carnation (for showing at competition) for upwards of twenty years, during which time, I have had an opportunity of ascertaining what mode of treatment is required to grow it to the best advantage; I therefore offer the following remarks for insertion in the Cabinet, for November or December, as it is the period when the best layers may be obtained, having established themselves after removal from the parent plant.

When the plants are about mid-bloom I perform the layering in the usual manner, and as soon as I discover they are sufficiently rooted, which varies, some kinds being much longer than others, as season and situation too operate to create a difference; I take the layers up carefully and put four plants into each twenty-four sized pot, placing the layers near the side of the pot, but not for the stem to touch it, for I have found many of the tender sorts die from that circumstance.

The compost which I use is light; as soon as potted, they are well watered, and placed in a close frame and shaded: to those who have not the the convenience of a frame, a shady sheltered situation should be selected. After having been shaded about ten days, they will bear full exposure to the sun; but to prevent inju-

ry from heavy rains, the glass should be placed over the plants during the night.

On the approach of winter, the pots are plunged in coal ashes, this is, of course, within the frame, and has the effect of preventing the pots from drying, as well as to guard them against severe frosts. They remain in this situation till the following March, and are then more fully exposed to the air, about the first week in April, they are finally removed into the pots in which they are intended to flower, viz. twelve inches deep and ten across, and others, fourteen deep and twelve across. In the former, I only put two plants, and in the latter I put four; I however, very much prefer the former, as the roots run much more freely in pots comparatively small, when they can easily reach the sides. Drainage is an essential consideration in the culture of the Carnation; in order, therefore, that the water may escape from the earth in the pot with great readiness, I use about three inches of broken pots or stones; these are first placed in the bottom of the pot, and to prevent the earth mixing with this drainage, it is covered with an inch of moss. When all are potted, I then remove them to a situation where they are sheltered from the north winds; as the season advances, and the rays of the sun become powerful, I remove the pots where they receive partial shade from the mid-day sun, and in this situation they are allowed to flower. As soon as the flower stalks begin to grow, the stakes are placed in the centre of the pot, and the stems secured by ties of matting, according as at the time the buds begin to be formed, I place some finely broken manure on the surface of the pots, being watered through this, it greatly invigorates the plants and strengthens the bloom. When the buds are nearly ready to expand, I assist them by using a sharp knife, to part the extremities of the calyx, they then burst much more freely. I also find it to be of the utmost consequence to protect the calyx from bursting, by tying a piece of matting neatly round its centre; some flowers will bloom without this precaution, but by far the greater number require it. As soon as the blossoms begin to expand, I shade the flowers with paper covers. Sometimes the flowers are in danger from earwigs, these I prevent from getting to the flower by a small gauze bag being placed under each flower to stop their progress up the stem, which is quite effectual.

For the compost I take equal portions of fresh loam, rotted cow-dung, a year old at least, river sand, and leaf mould; I have it

looked over to see no wire worm is in it, when I apprehend there are small ones which escape notice, I have some fresh lime stones thrown into a tub of water, have it well stirred up, and after confusion has subsided, and the water becomes clear as at first, I pour it in its clear state over the compost, this effects the destruction of any remaining.

DIANTHUS.

ARTICLE V.

ON CHINESE GARDENS.

(Continued from page 232.)

Neither do they employ together the catalpha and the acacia, the yew and the willow, the plane and the sumach, nor any of such heterogenous sorts ; but on the contrary, they assemble in their large woods, the oak, the elm, the beech, the tulip, the sycamore, maple and plane, the Indian chesnut, the tong-shu, and the western walnut, the arbeal, the lime, and all whose luxuriant foliages hide the direction of their branches ; and growing in globular masses, assemble well together ; forming, by the harmonious combination of their tints, one grand group of rich verdure.

In their smaller plantations, they employ trees of a smaller growth, but of the same concordant sorts ; bordering them with Persian lilacs, gelder-roses, seryngas, coronillas or sennas of various sorts, flowering raspberries, yellow jessamine, hypericum or St. John's wort, the spiræa frutex, altheas, roses, and other flowering shrubs peculiar to China ; such as the moli-wha, the quey-wha, the lan-wha, and the wen-quang-shu ; intermixed with flowers, and with the tallow-tree and padus of various species, the tse tang or rose tree, elder, mountain ash, acacia, double blossomed thorn, and many other sorts of flowering trees : and wherever the ground is bare, they cover it with white, blue, purple and variegated periwinkle, the convolvulus minor, dwarf stocks, violets, primroses, and different kinds of creeping flowers ; and with strawberries, tutsen and ivy, which climbs up and covers the stems of the trees.

In their large plantations, the flowers generally grow in the natural ground ; but in flower-gardens, and all other parts that are highly kept, they are in pots, buried in the ground ; which, as fast as the bloom goes off, are removed, and others are brought to

supply their places ; so that there is a constant succession, for almost every month in the year ; and the flowers are never seen, but in the height of their beauty.

Amongst the most interesting parts of the Chinese plantations, are their open groves ; for as they spend much of their time there, care is taken to situate them as pleasantly as possible, and to adorn them with all kinds of natural beauties.

The ground on which they are planted, is commonly uneven, yet not rugged : either on a plain, raised into many gentle swellings ; on the easy declivity of a mountain, commanding rich prospects ; or in vales, surrounded with woods, and watered with springs and rivulets. Those which are in an open exposure, are generally bordered with flowery meadows, extensive corn-fields, or large lakes ; the Chinese Artists observing, that the brilliancy and gaiety of the objects, form a pleasing contrast with the gloom of the grove ; and when they are confined in thickets, or close woods, the plantations are so contrived that, from every approach, some part of the grove is hid ; which opens gradually to the eye of the passenger, satisfies his curiosity by degrees.

Some of these groves are composed of evergreens, chiefly of pyramidal form, thinly planted over the surface, with flowering shrubs scattered amongst them : others consist of lofty spreading trees, whose foliage affords a shady retreat during the heat of the day. The plants are never crowded together ; sufficient room being left between them for sitting or walking upon the grass ; which, by its shady situation, retains a constant verdure ; and, in the spring, is adorned with a great variety of early flowers, such as violets, crocus's, polyanthus' primroses, hyacinths, cowslips, snow-drops, daffodils and daisies. Some trees of the grove are suffered to branch out from the very bottom of the stem upwards ; others, for the sake of variety, have their stems bare ; but far the greater number are surrounded with rose-trees, sweet-briar, honey suckles, scarlet beans, nasturtiums, everlasting and sweet-scented peas, double blossomed briar, and other odoriferous shrubs, which beautify the barren parts of the plant, and perfume the air.

Sometimes too their open groves are composed of lemon, orange, citron pompelmoose, and myrtle-trees ; which, as the climate varies, either grow in the earth, or in buried tubs and pots, that are removed to greenhouses during the winter. They also have groves of all sorts of fine formed fruit-trees ; which, when they blossom, or when their fruit is ripe are exceedingly beautiful : and to add to

the luxuriance of these scenes, the Chinese Artists plant vines of different coloured grapes near many of the trees, which climb up their stems, and afterwards hang in festoons from one tree to another.

In all their open groves are kept young broods of pheasants, partridges, pea-fowls, turkies, and all kinds of handsome domestic birds, who flock thither, at certain times of the day to be fed ; they also retain in them, by the same method, squirrels, pe-che-li-cats, small monkie, cockatoos, parrots, hog deer, spotted capritos, lambs, Guinea pigs, and many other little beautiful birds and animals.

The trees which the Chinese Gardeners use in their open groves, and also for detached trees, or groupes of two, three, or four together, are the mountain-cedar, the spruce, silver, and balm of Gilead firs, the larix, the smooth stemmed pine, the arbor vitæ, and cypress ; the weeping willow, the u-kyew-mu, the birch, the maple, the western walnut, arbeal, tulip acacia, oak, elm, and all others that grow in picturesque forms ; and whenever they loose their natural shape, either by too quick vegetation, or other accidents, they endeavour to reduce them to an agreeable form, by lopping off their exuberances ; or by forcing them into other directions. The Indian, or horse-chesnut, the lime, and some others of a stiff, formal growth, they never use detached ; but find them on account of their rich verdure, their blossom, and abundant foliage, very fit for thickets, woods and avenues.

They have particular plants for the dressed gay parts of the Garden ; others in their wilds and scenes of horror ; and others appropriated to monuments and ruins ; or to accompany buildings of various sorts ; according as their properties fit them for these different purposes.

In planting, they are nicely attentive to the natural size of their plants ; placing such as are of humble growth in the front ; and those that are higher, gradually inwards : that all may be exposed to view at the same time. They appropriate certain plants to low moist situations ; and others to those that are dry and lofty ; strictly attending therein to Nature : for though a willow, say they, may grow upon a mountain, or an oak in a bog, yet are not these by any means natural situations for either.

The lakes and rivers are well stored with fish and water-fowl ; all the vessels are contrived for fishing, hunting, and other sports that are profitable as well as entertaining ; and in their borders

they plant, instead of flowers, sweet herbs, celery, carrots, potatoes, strawberries, scarlet beans, nasturtiums, endive, cucumbers, melons, pineapples, or other handsome fruits and vegetables ; while all the less sightly productions for the kitchen, are carefully hid behind espaliers of fruit-trees. And thus, they say, every farmer may have a Garden without expense : and, that if all landholders were men of taste, the world might be formed into one continued Garden, without difficulty.

Such is the substance of what I have hitherto collected relative to the Gardens of the Chinese. My endeavours, in this Article, have been to give the general outline of their style of Gardening, without entering into trifling particulars, and without enumerating many little rules of which the Artists occasionally avail themselves ; being persuaded that, to men of genius, such minute discriminations are always unnecessary, and often prejudicial, as they burden the memory, and clog the imagination with superfluous restrictions.

The dispositions and different artifices before mentioned, are those which are chiefly practised in China, and such as best characterize their style of Gardening. But the artists of that country are so inventive, and so various in their combinations that no two of their compositions are ever alike : they never copy nor imitate each other ; they do not even repeat their own productions ; saying, that what has once been seen, operates feebly at a second inspection ; and that whatever bears even a distant resemblance to a known object, seldom excites a new idea. The reader is therefore not to imagine that what has been related is all that exists ; on the contrary, a considerable number of other examples might have been produced : but those that have been offered, will probably be sufficient : more especially as most of them are like certain compositions in music, which, though, simple in themselves, suggest, to a fertile imagination, an endless succession of complicated variations.

To the generality of Europeans, many of the foregoing descriptions may seem improbable ; and the execution of what has been described, in some measure impracticable : but those who are better acquainted with the East, know that nothing is too great for Eastern magnificence to attempt ; and there can be few impossibilities, where treasures are inexhaustible, where power is unlimited and where munificence has no bounds.

European artists must not always hope to rival Oriental grandeur : they will seldom find islands for ostriches, or forests for elephants, where property is much divided, where power is confined, and wealth rare : men of genius may often conceive more than it is practicable to execute ; yet let them always boldly look up to the sun, and copy as much of its lustre as they can : circumstances will frequently obstruct them in their course, and they may be prevented from soaring high ; but their attention should constantly be fixed on great objects, and their productions always demonstrate, that they knew the road to perfection, had they been enabled to proceed on the journey.

Where twining serpentine walks, digging holes and crooked ditches for earth to raise mole-hills, scattering shrubs, and ringing never-ceasing changes on lawns, groves and thickets, is called Gardening ; artists will have few opportunities of displaying their talents ; it matters little there who are the Gardeners ; a cabbage planter may rival a Claude, and a clown outwine a Poussin ; the meanest may do the little there is to be done, and the best could reach no farther. But wherever a better style is adopted, and Gardens are to be natural, without resemblance to vulgar Nature, new without affectation, and extraordinary without extravagance ; where the spectator is to be amused, where his attention is constantly to be kept up, his curiosity excited, and his mind agitated by a great variety of opposite passions, there parts will be necessary ; and Gardeners must be men of genius, of experience and judgement ; quick in perception, rich in expedients, fertile in imagination, and thoroughly versed in all the affections of the human mind.

ON CHINESE GARDENS.

ARTICLE VI.

ON THE CULTURE &c. OF THE TULIP.

BY MR. J. FORBES, STANLEY, YORKSHIRE.

As the period is approaching for planting this long admired favorite, the Tulip, I forward for insertion in the Cabinet, some remarks upon its history, descriptive properties, and mode of culture, extracted from the observations of a Continental Grower of celebrity, (M. Trippet,) who forwarded me the same, along

with a fine collection of splendid kinds of Tulips. He observes that the Tulip grows naturally on the Savoy mountains, and in the neighbourhood of Nice. It furnishes varieties of which the two principal are, first, Bizarres, and second, those on a white ground. The first are those which have a yellow tinge, mingled with other colours, but entirely exclude white.

They were in great esteem forty or fifty years back, but are looked on less favourable at present. Many persons, however, cultivate them still, to form a contrast, by their dark shades of colour, with those on a white ground. The last named kinds, on the contrary, have not the slightest trace of yellow. Sometimes, indeed, at the moment of blowing, a few exhibit a pale shade of yellow, but the rays of the sun soon render them of a pure white. These are again sub-divided into two classes: the first into tulips, on a white ground, streaked with red, pink, crimson, &c.; and, secondly, those on a white ground, streaked with violet, amaranth, purple, lilac, &c. The tulips, commonly called Dutch, are the only ones now admitted into a choice collection, and of these there are about 700 good varieties.

In order to be admitted into this privileged class, certain conditions have been laid down by lovers of the flower, which the tulip should fulfil, and to fail in even a single regulation is sufficient to cause it to be rejected. These conditions are, first, regularity of form; secondly, harmony of proportions between the several parts; thirdly, firmness of the stalks and petals; and, fourthly, on each of these a union of at least three colours clearly defined.

With respect to the first condition, it is indispensable that, from the point of junction, the petals should bend themselves gracefully about a third part of their height, and then describe a straight line to the top, so as to form a sort of cup with a circular opening. The summit of the petals must not be in the slightest degree, blunt or jagged at the edge.

Referring to the second condition, the width of the flower ought to be about three-quarters of its height. The nicest harmony of proportions ought to reign, not only in the different parts of the corolla, but also between this latter and the stem. The bulk of this ought to be co-ordinate, both with its own height, and with the colour of the corolla. Thus a flower, with breadth equal to its height, a long stem supporting a diminutive flower, or a fine corolla inserted into a weak, bending, or ridiculously short stem,

are blemishes which the severe taste of good judges proscribe as fatal.

As to the third law, we may remark that strength and straightness of stem are indispensable. Here the petals must be well furnished, for they then resist more easily the power of the solar rays.

To satisfy the fourth condition, it is necessary that at least three colours should appear, harmoniously combined, so that the eye may love to rest on the union. They must be well defined, bright and formed into regular designs—they must continue perfect up to the time of the flower going off, without running into each other from the effects of rain, or becoming weak and dried from the rays of the sun.

Tulips are obtained in two different manners—by seed and offsets. Experience proves that any variety of tulip is not reproduced by seed; and hence amateurs always have recourse to this mode of propagating it, when they desire to obtain new kinds which kinds they denominate *Conquests*. In order to obtain the accomplishment of their wishes with more certainty, they take care not to employ any seed but that which comes from tulips having the bottom of the petals of a pure white, because the colours of tulips proceeding from such seed develop themselves more rapidly than those produced from other seed. Tulip seed ought to be placed in the earth about the month of October, in ground well prepared for its reception. It should be protected from the frost by layers of leaves or mats. When carefully attended to, the plants will appear above ground towards the end of February. From the size of a pea the first year, the root will increase considerably in the two following springs. “At each of these periods, when the young leaves are faded,” I spread over my plants about an inch of earth, such as covered the seed originally, and the bulbs remain untouched. This I allow a second winter, when the bulbs being a good size, I take them up and afterwards treat them as others. When I replant I place them at a depth of three inches, and two or three inches apart. Latterly, each year, I replant them in fresh ground; convinced by experience, that they reach perfection sooner by changing the soil, particularly if it has been well manured and fertilised by having grown other plants. No matter what care may have been devoted to the seed, few perfect flowers are obtained in the first blow, which does not usually take place before the fourth year; in

the following years, gradual amelioration of the colours take place, and those which at first were vague and indeterminate, finish at last, though in no fixed time, by assuming clear and distinct characters, until they reach all the perfection of which they are capable. Every tulip produced by seed, and as yet in a state of immaturity, is called a breeder, and in this state may continue from two to ten years. From the first blowing all flowers whose form is ill made, or whose petals are thin, or whose stem is weak and bending, or is tinged with yellow, are thrown away. When the petals fall, the seed vessels are broken off in order to give more strength to the root. After the fourth year, the roots are treated as those of a collection already formed. The offsets of a tulip always re-produce a plant identical with that from which they proceed. The period of their coming into bloom is from the first to the fourth year. They are planted in September, about three inches apart, in proportion to their size, in ground prepared the month before. A great number would perish from being dried up, if planting them was delayed to November. In taking them up and replanting, the same order is observed as is followed in an established collection. The advantage of offsets is great, as they serve to repair losses which a severe season or accident may cause to the old collection. In a tulip collection, the size of the roots is a matter of importance. It has been remarked that some of them, of a large size, produce petals which are not properly proportioned. Most frequently they become open and loose, whilst when the roots, are of moderate size, the flowers are perfect. Experience, however, is the safest guide in selecting the roots.

It is not sufficient to unite the most beautiful tulips in the same place, as if they are thrown together by chance or without harmony. Not only must the heights agree, but also the colours. Art in this respect comes to the embellishment of Nature. In order to display as much as possible the richness and value of a fine collection, the following precautions ought to be attended to, as they will be found to facilitate the labour in a high degree.

If, for instance, I have 300 tulip roots to plant, whose height and colour I am perfectly acquainted with, I provide six drawers with fifty compartments in each. In these I place the roots, in some position where the air will have a free access. I place the drawers in a case, one over the other, with a space between to let in the air, and the whole is surrounded with a wire grating, to

keep away rats and mice. As I know accurately the classification of my tulips, according to height and colour, yet I place the roots in proper order in the compartments. Its first series hold those whose stem is highest, and which are planted on the top of the bed : the other compartments hold others less high, until all are filled. The colours alternate as symmetrically as possible, so that the same colour never appears twice together, either longitudinally or transversely. It will result from this disposition of the plants, that, in looking at the the bed obliquely, they appear like a draught-board, with lines formed of an uninterrupted colour. When I have properly arranged the roots in these compartments, the next step is to choose out a piece of ground, not moist, open, exposed to the south-east in preference to the south west, and distant at least fifteen feet from any wall, or hedge, I find it best to give the bed a certain inclination, in order first to see the position of the flowers more easily, and next to facilitate the flowing off of rain or other moisture. When I make a second bed, I place it opposite and parallel to the other, with a walk of about four feet between, and with the lower part of one bed next to the lower part of the other. By this means the two beds incline towards each other. In order to renew certainly the principles which are indispensable to bring tulips to perfection, the earth is changed every two years ; and in order to preserve to the plants, the second year, a vegetation as favourable as the first, it is well watered with liquid manure, poured over the ground in July or August ; and in order that every particle of the earth should be impregnated with it, the whole soil is dug up in a month after, and well mingled together. This is far preferable to mixing up dung with the soil as is usually done, I find the flowers are equally fine, and of much clearer and finer colours. When the earth is properly prepared thus, from the 12th to the 20th of November, the planting of the roots takes place. The bed is carefully measured, and the roots placed at equal distances. A small portion of sand placed at the bottom of each hole, and the root covered with a little, allows the moisture to pass through it quickly, and the roots are protected from insects. When the roots are placed thus, they are covered by the hand with a small quantity of earth ; not pressing it too closely, as if done so, the earth is rendered too compact by the pressure, so that the roots do not vegetate easily, and the plant is liable to be injured by moisture, which finds some difficulty in passing through. The edges of my beds are supported, with stone, which keeps out all insects.

Tulips, from being exposed to the intemperature of the atmosphere, are subject to certain diseases, which it is of consequence to prevent. From the middle of February, to the middle of April, they have generally to encounter snow, hail, and cold rains. The cups formed by the young leaves, at the bottom of which the bud lies shut up, get filled with rain, and the result is, that the water remains there until it insinuates itself into the interior of the root, and often spoils it, or impedes its opening. To obviate any inconvenience arising from exposure to the weather, it is necessary to shelter the flowers with a covering of canvass, which, by means of cords and pullies, I can extend or roll up at will. The bed is covered with this in unfavourable weather, but exposed to the rays of the sun, and to gentle rain. When the flowers are open the covering is kept over the bed during rain, and from nine to four o'clock in case of sun, by this means the duration of blowing, is prolonged, and the beauties of the flowers can be admired without any exposure to rain or sun.

When the flowers are open I take a particular survey of my stock to see that each kind is true to the catalogue register, and regulate if required. When the bloom is over, the seed vessels are cut off, in order that the roots may profit by the sap, which otherwise would have been absorbed. The time for taking up the roots is easily ascertained. When the stems roll themselves round the fingers without breaking, then I am certain that the time for taking up has arrived. This takes place generally towards the end of June, and I am careful to observe the same order as was adopted in planting them. Too tender to resist the action of the sun after being taken from the ground, the roots are liable to perish by being exposed to its rays, so that care is taken to avoid such injury.

In taking them up I gently uncover the ground at the sides of the roots, and then uncover them; after they have been deprived of their shoots, of their dry skins, and separated from the offsets, I place them in cases destined to receive them. I then leave them to dry in the shade from morning to evening, for four or five days. During a month, I occasionally expose them to the air, in order to guarantee their perfect dryness, and thus contribute to their better preservation. Some other remarks on Florist's flowers are sent me which I reserve for future occasions.

JAMES FORBES.

PART II.

NEW OR RARE PLANTS.

(Noticed since our last.)

BAUHINIA CORYMBOSA. Corymb-flowering Bauhinia (Bot. Reg. 47.)

FABACEÆ. TRIANDRIA, MONOGYNIA.

A very pretty climbing shrub, introduced from China some time ago, but we believe all attempts to bloom it had been unsuccessful, until September 1838, when a plant under the treatment of Mr. Wells, of Redleaf, produced an abundance of flowers, which are of a delicate blush color. In the Linnean classification this plant suits, equally well, no fewer than eight classes or orders. It succeeds best when placed in a cool part of the stove, and planted in a fresh and rich soil composed of peat, loam, and decayed manure.

CORYANTHES MACULATA, var. PARKERI. Spotted lipped Coryanthes, Mr. Parker's variety. (Bot. Mag. 3747.)

ORCHIDACEÆ. GYNANDRIA, MONANDRIA.

Introduced from Demerara, and cultivated by C. S. Parker, Esq.; the raceme produces numerous flowers, each is about three inches across, yellow, with a labellum of a brownish purple, spotted with darker purple spots.

OXALIS BARRELIER: Barrellier's Shrubby Wood Sorrel. (Bot. Mag. 3748.)

OXALIDÆ. DECANDRIA PENTAGYNIA.

A hothouse species, growing about a foot high, each branch bearing several flowers of a pretty yellow colour, spotted with brown. Each blossom is about half an inch across.

TOURETTIA LAPPACEA. Bur-fruited. (Bot. Mag. 3749.)

BIGNONIACEÆ. DIDYNAMIA ANGIOSPERMIA.

A native of Peru, introduced in 1837 into the Glasgow Botanic Garden, by J. M'Lean, Esq., of Lima, where it has bloomed. The plant is annual climbing to five feet high; the flowers are produced in terminal spikes of about ten blossoms on each; the calyx is at first of a bright red, changing to green; the corolla is of a dark purple, slightly streaked. Each flower is about half an inch long.

ODONTOGLOSSUM ROSSI. Mr. Ross's (Bot. Reg. 48.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Mr. Ross the collector for G. Barker, Esq., sent this very pretty flowering plant from Mexico; each flower has a bright white lip, lying, as it were, in the centre of a rich green, yellow, and blue star of three points, and produces a beautiful and interesting appearance. Each flower is about two inches across; the flower scape rises to about six or eight inches high.

RHOPODENDRON CAMPANULATUM. Bell-flowered.

(Bot. Mag. 3759.)

ERICÆ. DECANDRIA MONOGYNIA.

This very fine flowering species has rarely bloomed in this country, it has however, flowered with Mr. Dickson, at the Newton Nursery, Chester; Mr. Dickson states, that the plant has been growing in the open ground for seven years, and during the severest winter has been uninjured; that gentleman, having to remove the plant from its situation, placed it in a tub in November 1838, and put it in a greenhouse, where it bloomed the last spring. The plant is near five feet high, and bushy, and when in bloom was a most splendid object; the flowers are of a very delicate rose colour, dotted with a rosy purple, and tinged with yellow in the tubular part. Each blossom is about two inches and a half across, of a bell shaped form, and are produced numerously in fine heads.

CLEMATIS LATHYRIFOLIA. Large flowered erect Clematis.

(Bot. Reg. 61.)

RANUNCULACEA. POLYANDRIA POLYGYNIA.

A very showy hardy perennial plant, the stems grow erect to about four feet high, producing a profusion of white blossoms from July to the end of the summer.

DENDROBIUM FORMOSUM. Beautiful Tree-bloom.

(Bot. Reg. 64.)

ORCHIDACEÆ. GYNANDRIA MONANDRIA.

Collected on the Nepal Mountains, by Dr. Wallich, who observes that it grows in large tufts upon trees or rocks; it is a magnificent flowering species. The flowers are produced on racemes, each having from four to seven blossoms; the flower is about three and a half inches across, of a beautiful delicate white, having a large yellow spot on the labellum. It has a very agreeable perfume.

FABIANA IMBRICATA. Imbricated.

(Bot. Reg. 59.)

SOLANACEA. PENTANDRIA MONOGYNIA.

This very neat and pretty flowering plant was originally discovered in Chili, it has very much the resemblance of some of the profuse white flowering heaths; the blossoms are produced in spikes of six or more inches long; each flower is near an inch in length, and as a very neat and delicate appearance. The plant is shrubby, having a bright green foliage, rather resembling in form the Tamarisk; the shrub, however, forms a pretty bush, and when grown in the greenhouse, is loaded with blossoms. It thrives well in sandy peat, and may be kept out of doors in summer, as is done by some with Heaths, but requires a little shade from mid-day sun. It has bloomed in the collection of Messrs. Lucombe, Pince, &c., Exeter, and Messrs. Rolliasons, Tooting. We have seen it exhibited at the Hort. Societies' Rooms, London.

PATERSONIA SAPPHARINA. Sapphire.

(Bot. Reg. 60.)

PATERSONIA. IRIDÆA. MONADELPHIA TRIANDRIA.

A native of the Swan River, and introduced by that indefatigable florist, Captain Mangles. The plant is of the Iris tribe in growth, but the flowers have more the appearance of the Tradescantia; the stems rise to about two feet high, and terminate with a spathe of numerous flowers. Each blossom is about two inches and a half across, of a most beautiful violet blue, shaded with darker. The flowers are of short duration, but are produced in continued succession. A greenhouse or cool frame treatment we judge to be suitable; it is well worth growing.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON BLOOMING *TROPÆOLUM TUBEROSUM*.—Having been a Subscriber to your Floricultural Cabinet for some time, I take the liberty of stating that I have grown the *Tropæolum tuberosum* for two years, both in the pot, and turned out in the open ground; in the former way I found it did not grow very strong, but in the ground it grew very vigorous, and covered an immense space of the wall against which it was placed, it was twelve feet high, but I cannot get it to flower, it grows on until the frost takes it, and never shews the least inclination to bloom; nor am I singular in this, as several of my friends have tried it with the same result. Now, if you can give me a reason for this, or directions for a more fortunate cultivation of this plant, in your next Number, you will confer a great favor on
W. R.

Liverpool, October 1st, 1839.

P. S.—I raised it first in the hotbed and turned it out in May.

[We never saw it grown and trained against a wall, but it is very probable that the heat of the wall, as well as situation, would encourage the plant to grow too quickly, and run into shoots too weak to bloom, though extending considerably in length. In such a situation a good supply of water would be required, to have vigour to extent of shoots.

When grown in the open border where the plants have the sun most of the day, we have seen the plants bloom freely; they were planted in good rich soil, and had some branching sticks placed around them, so that as they extend, they formed bushes about the size of a moderate sized gooseberry bush. The open situation would prevent the over-rapid growth, and have a tendency to promote blooming; the plants we saw were tolerably good ones when turned out in May.

We hope that any of our Readers who have bloomed the plant successfully when trained, will forward us particulars of situation and mode of treatment.—COND.]

ON BLOOMING *TECOMA JASMINOIDES*, AND *IPOMÆA HEDERACIFOLIA*.—I have had a plant of *Tecoma Jasminoides* and another of *Ipomea hederacifolia* in my possession for about twelve months, and have had them kept in a greenhouse. They have each grown to six feet, and are in excellent health, but have not shown any symptoms of flowering; they were grown in peat, but I have lately transplanted them into a richer soil, with no better effect as to blooming. I should be obliged to any of the Readers of the Cabinet who would furnish me with any information on the culture of the above named plants, so as to succeed in blooming them.
M. L. R. M.

October 5th, 1839.

[*Ipomea hederacea*, and *Ipomea hederifolia* are annuals, and usually bloom, whether grown in pots or planted out into the open border. It is probable the *Ipomea* named, is not correct as to kind; if it be a greenhouse species it will very probably bloom next season, sometimes the removal of a plant from a warm to a cold temperature will prevent its blooming the first

season, or its tuber, (if of that class) may not be large enough to give vigour for blooming the first season. If it be a hothouse species, it will, of course, require such a temperature. The Tecoma does not usually bloom till it has got well established. It is highly probable it will bloom next year.—COND.]

ON A SELECT LIST OF TULIPS.—If some of your numerous readers would furnish a list of some really good, but not high priced Tulips, such as come within the reach of Amateurs of moderate means. The colours also, and any observations which would be a guide to the purchase of a small collection, it would I am confident be useful to many of your readers, and more particularly so, to
E. N. N.

[The following is a selection of superior kinds grown in the splendid collection of Messrs. Lockhart's, Seedsmen, Cheapside, at their grounds Fulham.

TULIPS.—BLVBLOEMS AND ROSES.

	s. d.		s. d.
Ambassadeur de Hollande	7 6	Imperatrice Romaina	2 6
Bienfait Incomparable	5 0	" de Maroc	5 0
Cerise Prine	2 6	Do little	2 6
Grotuis	5 0	Comte de Vergennes	7 6
La Majestoeuse	5 0	Armida	5 0
L'arbre de Diane	5 0	Abigail	2 6
Roi de Siam	7 6	Belle Jacomine	1 6
Washington	2 6	" Judaïque	1 6
Rose Hébé	1 6	General Woronzow	2 6
" Reine des Fleurs	3 6	Maitre partout	2 6
" Pretiosa	2 6	Bacchus	5 0
" Miniature	1 6	La Sultane	7 6
" Vestalis	3 6	Princess d'Austria	2 6

BIZARDS.

Aeolus	3 6	Gargantua	1 6
Asdrubae	2 6	Gordianus	2 6
Charbon Noir	2 6	La Lueur	3 6
Feu de Courtray	2 6	Mallagrida	2 6
Francis des Princes	5 0	Pontifex Maximus	2 6
Gloria Mundi	5 0	Prince de Roebec	2 6
Kirrhus	2 6	Mount Vesuvius	1 6
Goud beurs	1 6	Goudberg	1 6
La Mignonne	1 6	Passo d'Alost	5 0
Le Devil	1 6	Erison	10 6
Trafalgar	1	Abbé de St. André	1 6
Surpasse Catafalque	7	Electeur de Cologne	1 6
Caravata	3	Incomparable Premier	2 6

COND.]

ANSWER.

ON SENDING DAHLIAS TO THE ANTIPODES.—In answer to S., who wishes to know how to send Dahlias to the Antipodes, I beg to say, that in November 1838, I dispatched a collection to Bombay which were remarkably long on the voyage, exceeding four months, and they arrived in very fine preservation. The method is simply packing them in pounded charcoal in a deal box. I hope soon to give you an account of their altered nature; in August I heard they had grown to the height of twenty feet, with a stem the thickness of a man's arm, and covered with bloom; they flowered during the rains. Is it probable they may become perennials? (the Dahlia is—COND.)

Narcissus and other bulbs were dispatched in the same way, and have succeeded equally well. But I should particularly advise S. not to wait till the Spring, but send them when in a state of rest. I sent at the same time a box of plants packed by a Nurseryman in dry moss, which he expected certainly to succeed, but they arrived a mass of rottenness; I should be glad to know from any experienced exporter, if he has succeeded in any way besides that of sending them in those small greenhouses now used by Messrs Loddiges, &c.

J. G.

REMARKS.

ON THE TRANSMISSION OF SEEDS FROM REMOTE COUNTRIES. &c.—London Horticultural Meeting, September 18. 1838. Extracts were read from a letter, addressed to the Vice Secretary, by Dr. Hugh Falconer, Superintendent of the Botanical Garden of Saharunpur, and dated Cashmeer, January 24. 1838.

“ I have been gratified to find that the Himalayan seeds, sent by me, succeeded so well with the Horticultural Society.

“ As the result seems to have interested you, I may mention the mode in which the collection and package were managed. The seeds are collected generally on a march along an extensive tract of country; as a general rule, the pericarps are not detached, but the fruit and seed immediately packed up in paper; the closed paper packets, especially those containing baccate or juicy fruits, are daily exposed freely to the sun! and, to increase the heating effect of the solar rays, the packets are spread out on a black blanket, and kept so till the paper of the packets feels dry, a man being employed in turning them occasionally: the paper imbibes moisture during the night, and the process is repeated till all moisture is thoroughly dissipated. In the rains, which embrace about half the seed season in the Himalayas, the sun is not available, and the packets are daily dried before a gentle fire, till the same effect is produced; but the result is much more uncertain as regards subsequent germination. In packing up the packages for transmission to Europe, the little packets are folded up loosely in a couple of envelopes of paper; and an invariable caution is given along with them, never to let the packages get into a box or trunk, much less into the ship's hold; but to suspend them loosely from an airy corner of the cabin, free from the risk of moisture and spray.

“ On a march, where you move daily under canvass from place to place, the amount or duration of shade required for drying seeds, or their fleshy coverings, is not unavailable, or I should certainly never torrefy the packets in the sun; all that can be said of the method is, that it speedily dries the seeds without killing them. The management on board ship appears to me to be every thing; loose wrappers, free exposure to the air in shade, and exemption from boxes, trunks, or the hold.

“ The exposure to the sun, with the augmented heating effect produced by radiation on a black blanket, is perhaps interesting with reference to the conditions mentioned by you at p. 304. of your Introduction to Botany, 2d edition; but the effect is probably merely a heating one, as the opacity of the paper, and the reflecting purity of the light colour, must prevent the luminous rays being transmitted to the seeds. I should certainly expect a different result in the end, with reference to germination, if the seeds were directly exposed.

“ On one occasion, I received from England a large investment of garden vegetable seeds from a London seedsman. They were packed in the thick dark brown paper which is generally used by grocers and seedsmen, and which, for the facility of folding, is usually in a somewhat damp state. The packages were nailed up in a large wooden box, with numerous folds of this paper, and the box then hermetically sealed in a tin case; it then found its way into the ship's hold. The damp paper, which, in the temperature of

England, say at 50°, would have mattered little, became an important agent when the ship got into the tropics ; at about 80° the damp became a hot vapour, and, when the seeds reached me, I found them all in a semipulpy and mildewed state, in fact parboiled by the steam process ; and, out of a 30l. investment, not a seed germinated.

“ I shall soon have the pleasure of sending you another collection, made on the hills to the westward, and in Cashmeer, where I now am.

“ I have found the *Prangos pabularia* growing in the valley.”

With reference to this communication, it was stated that by far the greater part of the seeds alluded to by Dr. Falconer were in a fresh state when they reached the Society, and presented a remarkable contrast with those which usually arrive from Calcutta and elsewhere. There can be no doubt, that the most important precaution to observe, in conveying seeds safely through a long voyage, consists in exposing them freely to the air ; because, if that is attended to, the damp, which, when in combination with a high temperature, contributes so much towards destroying the germinating power of seeds, is dissipated as fast as it is formed. It was added, that, in the experience of the Vice-Secretary, no better plan was known for sending to great distances most kinds of seeds, than, after being well dried, packing them loosely in common brown paper, and enclosing them, without pressure, in small coarse canvass bags, suspended from the sides of the cabin, where they could be kept dry. The society has tried various other methods, such as packing in sugar, and in charcoal : enclosing in tin cases, in bottles sealed up, &c. ; and all such plans invariably proved unfit for the preservation of the germinating principle of seeds ; especially the two last, which had long been known to be a means of destroying, rather than preserving, life, although still persevered in.

It was added, in illustration of these observations, that the most successful instance of introducing seeds of the deodar cedar, from India, occurred some years since ; when a plan, similar to that now recommended for adoption, was adhered to. In the year 1831, the Honourable T. Leslie Melville, on his return to England, brought with him some cones of the deodar, thrown loosely into a drawer in his cabin ; these were presented to the Society, by that gentleman, and were so fresh, that nearly the whole of them germinated immediately upon being sown ; and, in fact, furnished the principal part of the plants which the Society has been for some years distributing of this most valuable tree.

ON A NEW METHOD OF WRITING ON ZINC, FOR LABELLING PLANTS.—Mr. Henry Braconnot, the celebrated French Chemist of Nancy, to whom we are indebted for the curious transformation of rags and other similar vegetable substances into starch, gum, and sugar, by the agency of oil of Vitriol, and whose name is well known in the chemical world for various researches connected with the analysis of vegetable substances, has given in the last number of the *Annales de Chimie et de Physique*, a preparation for writing on plates of zinc to label plants. The writer having a dislike to painting in oil which is often inconvenient, and never endures a long time, resolved to turn his attention to some other way which would prove both ready and durable. The system of writing on zinc with a black crayon, which was accidentally discovered by M. Symon an Amateur at Brussels, and noticed in the *Revue Horticole* for October 1832 and the *Bon Jardinier*, for 1833, possessing many imperfections, Mr. Braconnot to try some experiments, being anxious to obtain a liquid, or a species of ink, which would be perfectly durable when exposed to the changeableness of the weather, and also one with which, he could write with ease. This end, after several proofs, he is induced to believe he has in a great measure attained. If it answers he will have done both the botanists and amateurs a real service. The preparation is as follows :—

Take Verdigris in powder one part,
Salamoniac in powder one part,

Lamp black (Mori de Fumea) half a part,
Water ten parts ;

Mix these in a glass or pot Mortar, at first only adding as much water as will mix it well, then add the remainder of the water, when placed in a vessel, let it be well shaken up from time to time and in a few days it will be ready for use. This is not only excellent for labelling plants, but also for marking objects it is wished to preserve in low, wet, situations, and for marking keys, becoming quickly dry and being very durable.

FLORAL EXHIBITIONS.

We have had numerous accounts of the Floral exhibitions held throughout the country, forwarded to us. In several instances, however, the names of the persons winning prizes were only given, and not the names of the flowers; from the first of our commencing the Floricultural Cabinet we have refused to insert such accounts, not having in them anything to benefit our readers. Where the names of the flowers are given we consider it of interest and value, inasmuch as it shows which kinds are most superior for the desired purposes, especially with what are usually termed Florist's flowers, such as Dahlias, Carnations, Pinks, &c.

HULL AND EAST RIDING FLORAL AND HORTICULTURAL SOCIETY.—This Society held their fifth exhibition on the 15th of August at the Public-rooms, Jarratt-street. The flowers possessed most superior excellence of quality; the piccotees upon yellow grounds surpassed everything hitherto exhibited in this place, particularly the pans shown by Dr. Horner, and Mr. H. S. Norman. The plants, by Mr. Simon Appleton, gardener to Avison Terry, Esq., merit great praise. A pan of Seedling Carnations and Piccotees, raised by Dr. Horner, and bloomed this season for the first time, were of superior quality, and many of them offer as first-rate flowers. A stand of very beautiful and rare flowers were exhibited by Messrs. Forsyth and Ward, of Anlaby, as also a fine tray of splendid Panzies, all from their nursery. The whole exhibition was most pleasing and gratifying to the numerous visitors, and reflected great credit to the members of the Society.

The following is a list of prizes, and to whom awarded :—

Premium by Joseph Sykes, Esq.—Carnations.—Dr. Horner, Ely's Lovely Ann ; Ditto by J. C. Parker, Esq. ; Dr. Horner, Horner's Judith Ann ; ditto by Mr. Wm. Burstall ; Dr. Horner, Ely's Mango ; ditto by a friend, Dr. Horner, Ely's Lord Milton.

Pink Bizarre—1. Dr. Horner, Ely's Lord Milton ; 2. Mr. Burman, ditto ; 3. Dr. Horner, Paul Pry ; 4. and 5. ditto, ditto ; 6. Mr. John Hodgson, Ely's Lord Milton.

Scarlet Bizarre—1 and 2. Dr. Horner, Ely's jolly Dragoon ; 3. Mr. Oglesby, Ditto ; 4. Dr. Horner, Seedling, 1839, Horner's Thunderbolt ; 5. and 6. Mr. Burman, Ely's Jolly Dragoon.

Purple Flake.—1. Dr. Horner, Ely's Mango ; 2. Ditto, Lascelle's Queen of Sheba ; 3. Ditto Turner's Princess Charlotte ; 4. Ditto Leighton's Bellerophon ; 5. Mr. John Hodson, Ely's Lady Hewley ; 6. Mr. Burman, Ely's Mango.

Pink or Rose Flake—1 and 2. Dr. Horner, Ely's Lovely Ann ; 3. Mr. Burman, Ditto ; 4. Dr. Horner, Ditto ; 5. Mr. Burman, Ely's Miss Molly ; 6. Dr. Horner, Seedling, 1839.

Scarlet Flake.—1. Dr. Horner, Wilson's William the Fourth ; 2. Mr. Burman, Cheshire Hero ; 3. Dr. Horner, Seedling, 1839, Horner's Firefly ; 4 and 5. Ditto, Wilson's William the Fourth. 6. Mr. Burman, Taylor's Festival.

Self—1. Dr. Horner, Horner's Judith Ann ; 2. Ditto, Seedling, 1839, Horner's Miss Fanny ; 3. Mr. Burman, Purpurea ; 4. Ditto, No. 145 ; 5. Dr. Horner, Seedling, 1839 ; 6. Mr. Burman, Beauty.

Piccotees—Premium by William Lowthrope, Esq. ; Dr. Horner, Hemmingford Beauty ; Ditto by William V. Norman, Esq. ; Dr. Horner, Seedling, 1839, Horner's Dewdrop ; Ditto, by Dr. Horner, for the best Pan of Yellow.—Piccotees, not less than six, Dr. Horner.

Purple-edged or Striped—1. Dr. Horner, Seedling, 1839. Horner's Dew-drop; 2 Mr. Burman, Ely's Dr. Horner; 3. Mr. Bell, Wood's Agrippina; 4 Mr. Burman, Star of Brunawick; 5. Dr. Horner, Hufton's Miss Witloughby; 6. Ditto, Ely's Vanquisher.

Red Scarlet, or Pink edged or Striped—1. Dr. Horner, Hemmingford Beauty; 2. Ditto, Hegg's Miss Campbell; 3. Ditto, ditto; 4. Ditto, Ely's Criterion; 5. Ditto, Geddia's Miss Desbrough; 6. Ditto, Hemmingford Beauty.

Yellow Ground edged or Striped—1. Dr. Horner, Rosalie de Rohan; 2. Ditto, Princess; 3. Mr. H. S. Norman, Ugolina; 4. Dr. Horner, Ariel; 5. Ditto, Rosalie de Rohan; 6. Dr. Burman, Barron's Queen Adelaide.

Yellow Self—1. Mr. H. S. Norman, No. 1. 2. Ditto; 3. Dr. Horner, Golden Drop; 4. Ditto, Goldfinch; 5. Mr. Burman; No. 1; 6. ditto, No. 1.

A NATIONAL ARBORETUM—We have been informed that a National Arboretum is about to be planted in the New Forest, Hampshire, by Mr. Page of Southampton.

The ground being national property is under the direction of the commissioners of Woods and Forests. It will be situated about two miles from Lyndhurst.

CONDUCTOR.

A SUBSCRIPTION BOTANIC GARDEN—is in contemplation, by taking a considerable quantity of the grounds at White Knights. Of the specimens of rare trees and shrubs, in what is termed the wilderness, many of them, are unequalled in this country.

ROYAL BOTANIC SOCIETY.—The ground at the circle Regent's Park is in rapid progression for its object. A charter of incorporation has been granted to the society "for the promotion of Botany in all its branches, and its application to medicine, arts, and manufacturers; and also for the formation of extensive botanical and ornamental gardens." President: the Duke of Richmond;—Treasurer: Mr. Majoribanks—Council: the Duke of Norfolk, Earl of Albermarle, J. Rushbrook, P. Barnes, and J. C. Sowerby, Esqrs.

ON INCREASING THE NUMBER OF FLOWERS ON THE CHINESE PRIMROSE.—When the first flowers appear in autumn pinch them off, this induces a more vigorous and numerous production to follow; I have practised this mode of treatment for the last two years with astonishing success.

A. A.

ON INDIAN BOTANY.—The name of Dr. Wallich is familiar to every botanist in this country, as having been a most indefatigable collector of Indian plants. After the death of Dr. Roxburgh, Superintendent of the Calcutta Botanic Garden, Dr. Wallich took the management of it, and by his skill and activity aided by the East India Company, the garden has attained a high degree of prosperity; upwards of three hundred Gardeners and workmen are attached to it. Numerous travellers are employed by the Company, to traverse the extent of the country subject to its domination, with a view to add to the collection of plants, and which have considerably enriched the science of Botany by numerous discoveries. Dr. Wallich, has commenced the publication of two works, on the vegetables and flowers of India, the latter contains colored figures of the rarest plants of Asia. During the last fifty years the Company have collected an immense quantity of dried specimens (from seven to eight thousand) which have been sent to London and preserved in the Company's Museum. Through the liberality of a recent decision, the court of Directors has instructed Dr. Wallich to distribute the valuable collection among the principle botanists of Europe, at the same time taking suitable measures to insure their publication for the benefit of the country. The distribution has commenced, and we are confident the friends of science will highly estimate this act of extensive liberality.

All the species are arranged under their different families, and each family is sent to the Botanist who has given proof of his peculiar fitness for its examination. Mr. G. Benthams, the Caryophyllea and Labiateæ; Dr. Lindley the Roseaceæ; Mr. De Candolle the Umbellifera, Caprifoliaceæ, Lorantheæ &c; M. A. De Candolle the Campanulaceæ; And M. Choisy the Convolvuli. Each of these gentlemen receives the first disposable duplicates in the portion confided to him, and is to make them known to the Public. The other specimens are to be divided into collections and distributed into the different countries, so as to prove most efficient in extending a knowledge of the Botany of India.

NEW PLANTS.

LONDON HORTICULTURAL SOCIETIES GARDEN.—The first portion of the very splendid conservatory is rapidly progressing, it is glazed, and the interior in a very forward state. It has the advantage of a greater portion of light than any other erection of the kind we ever saw; its construction, elegance, and utility are admirably combined. The portion now in progress forms the west wing of what is ultimately to have attached a circular centre, and an east wing. The length of the west wing is one hundred and eighty-three feet, in breadth thirty feet, and height to the centre of the roof thirty-two feet, forming already a necessary and valuable appendage to the gardens, and we hope the liberality of those gentlemen who have duplicates of new and fine plants, will be extended to furnish it well at an early period. We were much gratified on examining the plants trained against the south wall of the arboretum, several, which are usually grown in the greenhouse, we found growing and flowering freely against the wall.

A plant of *Lycesteria Formosa* had extended five feet high, and spread widely, it had numerous heads of flowers, the red, purple, and whitish calyxes producing a very pretty effect.

Cercis Siliquastrum.—We saw in May and June, clothed with thousands of its lovely rose colored blossoms, this plant covering the wall to a great extent, and now appearing like a large trained fig tree destitute of its foliage, it is now, November, loaded with seed, which gives it an interesting appearance. The plant deserves a place wherever it can be introduced, its charming blossoms somewhat the form of those of Rose Acacia, but not on long racemes, it has a most beautiful appearance when in bloom. The tree grows rapidly.

Brugmansia Sanguinea.—Several plants had extended some distance, and were then in fine bloom.

Solanum laciniatum.—This was nine feet high, equally extended; its fine stags horn looking foliage giving it an attractive appearance. The flowers are tolerably sized of a pretty lilac, and are succeeded by fine red fruit having the appearance of good sized capsicums.

Physianthus Albicans.—This plant extended ten feet high by ten broad; the foliage is very pretty, the flowers are white, much the appearance of those of a Syringa; these are succeeded by large green fruit, each about four inches long and three in diameter. It blooms profusely, and is a liberal fruit bearer. It merits a place wherever practicable.

Lavatera Trilobata.—Extending nine feet by nine, its fine rosy pink flowers (each about three inches across) giving it a very showy and beautiful appearance.

Ceanothus azureus, *C. azureus palligus*.—The former with its numerous and beautiful blue heads of flowers; and the latter with those nearly white were objects of attraction. The plants are neat and rapid in growth, free in blooming, showy and handsome, and ought to be grown wherever they can. Description of many more will be given in our following numbers. A temporary construction, for covering the plants, was erected; a wooden coping extended a foot from the wall, with sloping supporters in front, against which canvass, or woolen netting can be spread, as found necessary.

REFERENCE TO PLATE.

ERYSIMUM PEROFSKIANUM.—Orange flowered Treacle Mustard. This very handsome and ornamental plant is said to be a native of Persia. Seeds of it were sent to the Edinburgh Botanic Garden in 1838. Lady Mary Cathcart, of Cathcart, received seeds of it from Caboul, and with them a statement that it was a native of Persia. Her Ladyship has observed upon it, that when grown in pots the plants are weak, but when in the open border they are vigorous as the common wall flower, and produce numerous heads of flowers in succession. We have seen it grow in the open borders in vast profusion in the garden of the London Horticultural Society, and there it produced a fine effect. The plant appears to be annual, seeding abundantly, and self sown, produces a host of plants around it, similar to the well known Candy Tuft. The plant grows about half a yard high, with numerous shoots each having a fine spike (some near a foot long) of its showy blossoms. It deserves a place in every flower garden or border, as it blooms freely, is very showy, and continues for several months in bloom. We have procured a stock of it.

FUSCHIA CHANDERII.—This very striking kind has been raised by Messrs. Chandlers of the Vauxhall Nursery, London. It is a production between *Fuchsia Fulgens* and one of the older kinds, probably *globosa*. The seed was from the latter. It is stated by persons who have had ample means of ascertaining, that *fuchsia fulgens* impregnated by the other kinds produces plants with flowers similar to the small kinds, but the smaller kinds impregnated with *fulgens* produces plants having flowers partaking of the form and colour of the latter.

PORTULACCA GRANDIFLORA RATILA. This appears to be a variety raised from *grandiflora* impregnated with (probably *P. Gillesia*) some other. It is a very beautiful flowering plant, well meriting a place in every flower garden during summer, or to be kept in pots in an airy greenhouse. The plant, like the other kinds, is difficult to keep through winter, frequently dying off by being kept too damp; it requires to be planted in pots with a good deal of drainage, and be placed high in the centre of the pot, and with any common care may then be easily kept.

FLORICULTURAL CALENDAR FOR DECEMBER.

PLANT STOVE.—Roses, Honeysuckles, Jasmine, Persian Lilacs, Azaleas, Rhododendrons, Carnations, Pinks, Primroses, Mignonette, Stocks, Aconites, &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 top 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, which gives a succession. If any of the forced plants be attacked with the green fly, a syringe with diluted Tobacco water will destroy them. If the leaves appear bit, and turn brown the effect of damage by red spider, a syringe of soap suds at the under side of the leaves is effectual to destroy them. The glutinous substance remaining not only kills those it is applied to but presents others returning there.

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, Florist's 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. Whilst in a cool and moist atmosphere the shoots will often push at the underside numerous rootlets, where such are produced the shoots should be taken off and potted, they make fine plants for next season, and are easier propagated now than at any other season.

Auriculas and Polyanthuses 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. Dablia 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 Piccotees should be placed in a situation where they may have a free air, and be raised above the ground ; if they are under a glass case, it will be much better than when 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 undistributed, reduce them to a suitable size by cutting them round with a sharp spade. When it is wished 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 benefited by a little mulch of any kind being laid over the 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.



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THE
FLORICULTURAL
CABINET,
AND
FLORIST'S MAGAZINE.

Conducted by

Wm. Harrison

Editor of the

GARDENER'S RECORD,

Lond.



THE
FLORICULTURAL CABINET

AND

FLORISTS' MAGAZINE.

JANUARY TO DECEMBER, 1840.

VOLUME VIII.

CONDUCTED BY JOSEPH HARRISON

DOWNHAM NURSERY, NORFOLK.

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1840.

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P R E F A C E.

THE completion of another Volume of the FLORICULTURAL CABINET furnishes us an appropriate occasion for surveying the path we have pursued as the CONDUCTOR during the past year; and in doing so, it is peculiarly encouraging, and affords us considerable satisfaction, to have practical results as an evidence that our humble efforts to aid in promoting the interesting, intellectual, and delightful pursuits of Floriculture, have met with such steadfast and munificent support.

At the time we commenced the FLORICULTURAL CABINET, there were a few Monthly Magazines containing coloured figures of plants, accompanied with a description of them, but these were so expensive as to preclude the far greater portion of the floral public from being advantaged by them, and scarcely anything of the practical management of the flowers they contained were given. We take the credit of being first to offer to a floral public a work so necessary and desirable in so cheap a form, by the publication of the FLORICULTURAL CABINET. Our endeavours, so nobly supported, have been attended with a success we never anticipated. Having a knowledge what was the kind of information required and which would fully meet that exigency, we have invariably strove to admit into our pages only those subjects calculated to edify; and to prevent anything of a distasteful and worthless character being brought to the notice of our readers through the medium of the FLORICULTURAL CABINET.

The efforts we have made, so generously aided by a Floral Public, and being so very extensively approved, has induced other persons from time to time to commence periodical publications on Horticulture; but we unhesitatingly flatter ourselves that we are not behind any of our contemporaries in the work of improvement, but as we are thousands of copies monthly in advance upon them, so the aggregate of subjects inserted in the FLORICULTURAL CABINET are alike fore-

most in what is really interesting and useful to the Floriculturist. To have been raised to so elevated a position we are deeply indebted to our obliging friends and correspondents, who have so kindly assisted us with manuscript communications, drawings, specimens of flowers, &c., and we beg again to record our grateful sense of obligation to them, and very respectfully solicit a continuance of their generous support; with such aid we reiterate the assurance to our subscribers, that no practicable means of rendering this publication additionally and enduringly attractive, and worthy their support and recommendation, shall remain untried.

We have made arrangements for several improvements in future, and our next number will be a specimen of what we refer to.

The very extensive circulation of the FLORICULTURAL CABINET, brings us a proportionate extent of valuable assistance in notices of, and remarks on, new plants, modes of culture, &c., and in which particular it stands so superior to any other. This favourable circumstance, in connexion with our free admission to all the first collections of plants in the country, enables us to give on such early occasions plates of the newest and most showy flowers. The fact, too, of the extensive circulation of this publication, makes it proportionately the best medium of advertising new flowers, &c., and the extent to which this is done, alone causes it to be much more valuable to a floral public than its cost. These united advantages render the FLORICULTURAL CABINET unequalled in value as a floral publication. That it may retain its superior position, we again record, every effort in our power shall be exerted; and the past kindness and liberality of our friends guarantee us in reposing implicit confidence in having their future aid, and our gratitude shall be proved by our deeds.

Downham, November 21st, 1840.



Sarcocolla multiflora. *Solisia ignea.* *Verticordia insignis.*

THE
FLORICULTURAL CABINET,

JANUARY 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

**ON A SUCCESSFUL METHOD OF BLOOMING THE TROPÆOLUM
TUBEROSUM, AND IPOMÆA HÆDERICIFOLIA.**

BY A FLORICULTURIST.

HAVING seen, in your useful periodical of December, a query respecting the culture of the *Tropæolum Tuberosum*, I trust the following remarks will not prove unserviceable to your subscriber, W. R., of Liverpool. In the spring of 1837 I purchased two plants of the *Tropæolum Tuberosum*, which I kept in pots for about six weeks after I had them in the conservatory; but finding they did not get on as well as I could wish, I was determined to see how they would do out of doors: accordingly in the month of June I planted one of them in a very sheltered south border against a wall; in a very short time it began to grow vigorously, and soon covered the portion of wall allotted for it, but with all its strength it showed not the least symptoms of blooming. It therefore struck me that if I checked its growth partially, it might perhaps throw it into bloom earlier than it might otherwise; consequently about the end of August I dug a small trench about two feet around the stalk of the plant, and placed therein a quantity of lime and other rubbish; by my doing this, I found it had the desired effect, for in less than three weeks I had the pleasure of finding the plant had commenced forming flower buds, and about the middle of September it was most magnificently in flower, and continued so till the middle of October, when it was cut down with the frost. About the end of November I took up the produce

of the plant, and to my astonishment took up, I should suppose, more than three hundred bulbs, averaging in weight from a quarter to an ounce and a half; these bulbs I kept in a dry place during the winter, and have again tried many of them this season in the same manner as before, and have bloomed most profusely.

Ipomæa Hædericifolia.—I also see a subscriber wishes to know the proper culture of this plant. I have found that they bloom very profusely if they are treated in the same manner as the *Tropæolum Tuberosum*.

ARTICLE II.

ON THE CULTURE OF GERANIUMS (PELARGONIUMS).

BY A FLORICULTURIST.

ON referring to the November Number of your useful work, I find that a subscriber is very anxious to be informed the best mode for the culture of geraniums. Having always been a great admirer of that favourite class of flowers, I have taken great interest in their culture. In my part of the country (Devonshire) the geranium growers endeavour to get their geraniums in bloom as early as they can, principally, I suppose, on account of the earliness of their floricultural exhibitions, which are generally held about the middle of May. I will now, therefore, if I may be permitted, explain my mode of managing this beautiful class of flowers, which, I hope, will prove useful to some of your readers.

About the middle of August I cut down my large blooming plants, and make cuttings from them, putting them in a mixture of sand, loam, and leaf-mould, and place them in a gentle heat, where they will soon root; in about a month I pot them off into small sixty sized pots, in a mixture of loam, leaf-mould, and a small portion of sand and well rotted cow-manure, and keep them a short time in a little heat. After the young plants are well established, I shift them about the middle of November into the next sized pot, in which I keep them during the winter in an airy situation in the greenhouse, as near the glass as possible, in order to keep them dwarf and bushy. Particular care must be taken to keep the house dry and well aired, else the guard or under leaves are liable to damp off, and

also kept moderately warm in cold weather to keep the frost from injuring the plants. In February I shift them again into forty-eight sized pots, allowing them a good rough mixture of cow-manure, leaf-mould, and loam, of equal quantity, and also a small portion of sand to keep the soil free and loose. They then begin to grow vigorously for about six weeks; I then encourage their growth with a little liquid manure, and about the middle of April they commence showing their flower buds. It must be borne in mind by those who wish to get their plants in bloom by the middle of May, that they must not be shifted again, but allowed to remain in the forty-eight sized pots, because, if they were again shifted, it would give fresh vigour to the plant, which would cause it to bloom late, whereas, if they were kept in the forty-eight sized, it would check their growth, and throw them into bloom much earlier; but in order to keep them healthy and flourishing, it is highly requisite to encourage them with a little liquid manure. By my attention to the foregoing remarks, I have grown my geraniums with every success, and had them splendidly in bloom by the middle of May. Not only have the blooms been greatly admired for largeness of size and brightness of colour, but also the beautiful compact growth of the plants, being clothed with foliage to the edge of the pots. I will now conclude my brief remarks, but, perhaps, before doing so, some of your readers might be glad to be acquainted with the names of some of the principal show flowers; I have therefore appended a list as under of some of the choicest varieties, with the probable prices for good established plants.

	<i>s. d.</i>		<i>s. d.</i>
Alicia	3 6	Phosphorus (Gaines's)	5 0
Bride of Abydos	5 0	Oliver Twist	7 6
Climax	5 0	Pickwick	7 6
Dulcinea	7 6	Perfection (Garth's)	5 0
Fanny Garth	15 0	Priam	3 6
Fosterii Rosea	5 0	Prima Donna	10 6
Gauntlet	10 6	Queen Victoria (Hodge's)	5 0
The Jewess	10 6	Queen's Superb	7 6
Joan of Arc	15 0	Rival King	5 0
King (Gaines's)	7 6	Sunbeam	10 6
Lady Bridport	5 0	Una	15 0
— Elizabeth Bulteel	7 6	Vivid	10 6
— Carlisle	10 6	Viola	10 6
Nulli Secundus	5 0	Vesta	7 6

ARTICLE III.

ON A SUCCESSFUL MODE OF CULTIVATING THE TROPÆOLUM TUBEROSUM.

BY MR. JOHN FYFFE, OF MILTON BRYANT.

HAVING completed my experiment with *Tropæolum Tuberosum*, I now lay before you the simple process pursued. The species *tuberosum*, when treated in the usual way by planting the tubers, grows very luxuriant, covering a space of several feet if trained against a wall, or forming a handsome bush if trained to a few branches, such as the common pea stake. What is complained of by most cultivators is, its rampant habit and shyness of flowering. The mode which I have adopted is simply this: When the plant has arrived at that stage of growth before or after it shows flower in the axil of the leaf (which is late in the autumn, so much so, that it seldom blooms before it is cut off by the frost), I take the points off the shoots three or four inches, cutting them close to a joint, and insert them in cutting pots well drained, containing a mixture of sand, leaf-mould, and loam; these will partially strike root before spring; some of them may form tubers if put in early, and in most cases the tops or cuttings will remain without dying down to the surface of the pot. These are potted off into sixty sized pots early in the spring, when they make good plants to turn out by the end of May or beginning of June! The plants so treated I find flower much sooner than those raised from the old tubers, as it is a sort of check on their luxuriant habit. To be convinced of its certainty, I planted, last spring, plants raised from cuttings in the way I have described against a wicker fence in an exposed situation, and also plants raised from tubers against a boarded fence with a warm south aspect; the former have been in *full flower* for this month back, the latter have but *a few flowers* fully expanded. I have but to add to these few observations, that although convinced they may be the means of bringing this species into flower sooner, the habit of the plant is quite different from *Tropæolum Pentaphyllum*, which will flower even in the cutting pot; *Tropæolum Tuberosum*, on the other hand, seems to complete its growth before it comes fully into a flowering state.

Milton Bryant, Nov. 18, 1839.

ARTICLE IV.

ON THE CULTIVATION OF THE BRUGMANSIA SUAVEOLENS.

BY S. R. P.

PROFUSE in radiant liliaceous flowers, protruding with their delicate whiteness from amongst a rich and ample foliage, the *Brugmansia Suaveolens* presents a most magnificent object; and, when night obscures these beauties from the eye, its delicious fragrance diffuses through the surrounding atmosphere a perfume of unequalled sweetness. To bloom this noble plant in perfection, in a greenhouse only, I had tried most of the methods mentioned in the *Floral periodicals* without success. Putting in practice, however, this year a theory communicated in your *Cabinet* for March, 1837, by a distinguished horticulturist, I have approximated success. "The leaves," says Mr. Joseph Hayward, "form the excretory organs of plants and trees; and whether the supply of food be great or small, a plant or tree cannot attain, nor sustain itself in, a perfect state of fructification, until it is furnished with a surface of leaves duly proportioned to the sap supplied by the roots." And again, "It generally happens that when a plant grows luxuriantly to leaves, branches, and stalks, it is but little inclined to produce blossoms; we may, therefore, justly conclude, that in such cases there is a greater supply of food than the leaves are equal to; and that although we cannot enlarge their powers, we can relieve them in their duties, by lessening the supply of food, and thus promote fructification." To carry out these laws, early in March last I re-potted a two-year old plant of the above in a No. 8 pot. As soon as it began to push, I cut it down to a foot from the surface, and allowed three shoots only to grow; it was watered twice a-week with a solution of three ounces of nitre to two gallons of water, and at other times with water only, as it might require; it was syringed every morning during summer. About the first or second week in July it had attained a most luxuriant growth, and with the pot was six feet high; thus far the first division of the above theory was effected. The adaptation of my system to the production of flowers was my next object: the plant was again turned out of the pot, and an inch of earth and roots pared off the ball, when it was returned to the same pot, and the interstice between the ball and the pot filled up with the same kind of compost

that it was at first planted in, viz.—equal parts of loam, peat, and decomposed manure; but now made fine and very tightly pressed in the interstice. It scarcely drooped its leaves, but the branches immediately ceased to elongate, and small shoots were thrown out at the extremities; these produced a great number of blossom buds, many of which expanded to more than six inches diameter, and although we have experienced so great a want of solar heat, that this splendid plant has now only a few languid flowers and some unexpanded buds, these with its yet bold foliage command the admiration of all who see it.

I purpose trying this system on *B. Lutea* and *Sanguinea* next season, and if any thing worth further communication results I will acquaint you therewith.

27th November, 1839.

[We shall feel grateful for it, but hope for other communications before that time.—CONDUCTOR.]

ARTICLE V.

ON THE CULTURE OF THE AMARYLLIS FORMOSISSIMA.

BY C. H. S., A SECOND GARDENER.

I PRESUME it may seem, to practical men, quite unimportant to write upon a plant that has now become so universally known; but, however, I would just beg leave to suggest, that whenever this plant has come under my notice, it has generally been stoved up in a hothouse from one year's end to another, without any success of flowering.

I will now just try to elucidate the way in which we succeeded in blooming them this year, in as brief a way as I can. About the middle of last February the bulbs were potted and well drained in suitable sized pots, and in a compost of equal parts of red loam and vegetable mould; after which, the pots were placed in a forcing vinery (as usual), there kept at about seventy degrees by fire heat: the plants grew luxuriantly, as usual, without showing the least appearance of flowering. About the middle of March, the gardener ordered them to be turned out of the hothouse; I took them and thrust them under the greenhouse stage, taking no more notice of them for, perhaps, ten days. Having, however, occasion to water

some plants near where they stood, I noticed one showing bloom, then another, and so on, and ultimately was agreeably surprised to find that, out of about two dozen, they all but three showed flower. They were then removed to a more eligible situation in the greenhouse, where they flowered most beautiful during April. Thus, it is very evident that the temperature they had been accustomed to be grown in was too hot for them, for, as soon as they were turned out of that element, they showed flower as soon as nature could produce them.

[We shall be glad to hear from our friend at his convenience.—
CONDUCTOR.]

ARTICLE VI.

ON FLOWERING THE TRIVERANIA COCCINEA.

BY CORNELIUS.

HAVING been very successful in flowering the *Triverania Coccinea*, I send you my mode of treatment, which, perhaps, you may deem worthy a place in the Floricultural Cabinet.

Culture:—About the end of March I divide the roots carefully, and pot them in light sandy loam, with about one-fourth of cow-dung added, covering the roots about half an inch deep. The size pots I use are twenty-fours. After potting them, I place them in a hot bed, which is not in a powerful heat. When the plants are about three inches high, I remove them into a vinery; I give them a regular supply of water, and never failed to have a splendid bloom, which have been the admiration of all that have seen them. As soon as the plants have done blooming, I begin to be sparing of water, so that in three weeks or a month I desist entirely. The pots of plants are then placed in a dry back shed, where the frost will not reach them, till wanted the next season.

Kew, November, 1839.

ARTICLE VII.

ADDITIONAL REMARKS ON THE HISTORY OF THE ROSE.

BY ROSA.

THE Rose as well as the Myrtle is considered as sacred to the God-

ness of Beauty. Berkeley, in his *Utopia*, describes lovers as declaring their passion by presenting to the fair beloved a rosebud just beginning to open; if the lady accepted and wore the bud, she was supposed to favour his pretensions. As time increased the lover's affection, he followed up the first present by that of a half-blown rose, which was again succeeded by one full blown; and if the lady wore this last, she was considered engaged for life. In our country, in some parts of Surrey in particular, it was the custom to plant roses round the graves of lovers. The Greeks and Romans observed this practice so religiously that it is often annexed as a codicil to their wills, that roses are ordered to be yearly strewed and planted upon their graves. Such is now universally the practice in New South Wales. And in our own country, it is the practice in some places when a child is carried to be buried, for young girls, dressed in white, each to carry a rosebud in her hand. Poetry, too, is lavish of roses; it heaps them into beds, weaves them into crowns, twines them into arbours, forges them into chains, adorns with them the goblet, plants them in the bosom of beauty. Nay, not only delights to bring in the rose itself upon every occasion, but seizes each particular beauty it possesses as an object of comparison with the loveliest works of nature. As soft as a Rose-leaf; as sweet as a Rose; Rosy clouds; Rosy-cheeks; Rosy-lips; Rosy-blushes; Rosy-dawns, &c.

Fabulous history says the Red Rose is indebted for its colour to the blood which flowed from the thorn-wounded feet of Venus when running through the woods in despair for the loss of Adonis; and the White Rose to have sprung from the tears which she shed on that occasion.

“ It has been asserted, that the rose flourishes only between the 20° and 70° of latitude; a theory disproved by the existence of the rose of Montezuma, the Abyssinian rose, and several other varieties.

“ Various countries possess their specific species of rose, unknown elsewhere, unless by transplantation. Of these, some extend their growth to 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 the countries of Europe; and the

Rosa canina, or dog rose, in Europe, as well as a considerable portion of Asia and America.

“ To proceed to a consideration of the more beautiful kinds indigenous in specific countries, we will commence with North America; where, in the glaciers of the most northerly provinces, grows the *Rosa blanda*, which unfolds its bright pink corolla, always solitary on the stem, immediately on the melting of the snows. This shrub is peculiar to the frozen deserts between 70° and 75° N. latitude. Within the polar circle, on the shores of the Hudson, is found the *Rosa rapa*, or Hudsoniana, covered during spring with clusters of double flowers, of a pale colour. Newfoundland and Labrador possess, in addition to the two species above named, the *Rosa fraxinifolia*, or ash-leaved rose, a small red blossom with heart-shaped petals; the *Rosa nitida*, the small cup-shaped, deep-red flowers and fruit of which abound under the stunted shrubs dispersed over the coasts. The Esquimaux are fond of decorating their hair, and the seal-skins and skins of rein-deer in which they are clothed, with these beautiful blossoms.

“ The United States, and adjacent Indian settlements, possess a great variety of roses, of which a few striking species may be enumerated. In the marshes of Carolina grows the *Rosa lucida*, the bright clusters of which rise above the reeds and rushes; beside the waves of the Missouri, the *Rosa Woodsii*; and in the adjoining marshes, the *Rosa Carolina*, and *Rosa Evratina*, whose double-flowers, of a pale pink, perish if transplanted to garden-ground from the marshy banks of the rivulets of Virginia, of which the shrub is a native.

“ Quitting the borders of streams and marshy savannahs, we find in the forests and stony districts the *Rosa diffusa*, of which the pink flowers blossom in pairs early in the summer. On the rising grounds of Pennsylvania, grows the *Rosa parviflora*, a diminutive shrub, of which the small, half-blown, elegant double-flowers, slightly tinged with the most delicate pink, constitute one of the most beautiful species of North America, but extremely difficult of culture and propagation. On the outskirts of the Pennsylvanian forests, grows the *Rosa stricta*, with flowers of a pale red; the *Rosa rubifolia*, the flowers small, pale red, and flowering in clusters of three; and, in South Carolina, the *Rosa setigera*, the petals of whose red blossoms are shaped like a reversed heart. The Creoles of Georgia adorn

their hair with the large white blossoms of the *Rosa laevigata*, a climbing plant, whose long tendrils are found interlaced among the most majestic forest trees.

“ The last rose adorning the Flora of America is the *Rosa Montezumæ*; sweet scented, of a pale pink, solitary, and thornless. This shrub abounds on the most elevated heights of Cerro Ventoso, near San Pedro, in Mexico, where it was discovered by Messieurs Humboldt and Bonpland. The town of San Pedro is situated in 19° of latitude; in direct refutation of those botanists who pretend that roses are not to be found under 20°. But the Montezuma is not the only Mexican rose. History attests that roses were abundant in the province at the Spanish conquest; witness the apostrophe of the Emperor Guatimozin to his favourite minister, when extended on beds of burning coal, intended by the conquerors to torture them into the discovery of their hidden treasures.

“ But though the species already cited are the only ones we are at present authorized to attribute to America, it is probable that more will be discovered; the greatest variety of roses being assigned by botanists to such countries as have been most minutely herborized. The insufficiency of our researches is probably the only cause that so large a portion of the American continent is held to be unproductive of roses. It seems unlikely, indeed, that France should possess twenty-four species of native roses, and the whole continent of North and South America only fourteen; nor is it to be credited that the rose-tree ceases to flourish within the 20° of latitude, when we remember that we are indebted to Mr. Salt for the discovery of a strongly characterized species in Abyssinia, at 10° of latitude.

“ It is a curious fact, that all the roses of America, with the exception of the Montezuma and *stricta*, might be classed under the same species as the European cinnamon-rose.

“ 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 Lawranceana* is a beautiful little shrub, from three to five inches in height, but, unlike most dwarfs, whether of the vegetable or animal creation, perfect in symmetry and proportion. The *Rosa multiflora* attains, on the contrary, a growth of fifteen or sixteen feet; having small, double, pale-pink blossoms, united on a single stem, so as to form beautiful bouquets on the tree. The *Rosa 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 *Rosa 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 tenth and twentieth degrees of latitude, possesses all the roses of China, and, in addition, several indigenous species; among others, the *Rosa alba*, found also in Piedmont, in France, and various other parts of Europe, and the *Rosa spinosissima*, bearing flesh-coloured flowers. Japan, between the thirtieth and fortieth degrees of latitude, has all the roses of China; besides a peculiar species, the *Rosa rugosa*, the solitary flower of which bears some resemblance to the Kamschatkan rose.

“The southern provinces of Asia, comprehending those of India, offer many curious species to our observation. The north of Hindostan possesses six; two of which are also found in China, and two in Nepaul. The *Rosa 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 *Rosa Brunonii*, whose petals are of the same snowy whiteness, rank high among the roses of India. In approaching the southern provinces, we find the *Rosa macrophylla* somewhat resembling the Alpine roses of Europe; the flowers whitish, but streaked with pink towards the extremity of the petals; the *Rosa 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 Nepaul. The flowers of the *Rosa involucrata* 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 *Rosa 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 Kandahar, Samarcand, and Ispahan, the *Rosa 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 *Rosa 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, has simple single leaves, and yellow star-shaped flowers, variegated like a cistus at the base with spots of deep crimson. The *Rosa 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 *Rosa sulphurea* displays its very-double flowers of a brilliant yellow.

“ The north-west of Asia, which has been signalized as the fatherland of the rose-tree, introduces to our admiration the *Rosa 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. The *Rosa ferox* mingles its large red blossoms and thorny branches with those of the Hundred-leaved; and the *Rosa pulverulenta* is also observed on the peak of Narzana, one of the Caucasian chain.

“ In the north of Asia, Siberia boasts the *Rosa grandiflora*, of which the corolla bears the form of an antique cup; the *Rosa 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 *Rosa 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 *Rosa acicularis*, bearing solitary flowers of a pale red. Ten or twelve other species grow in the Russian provinces of northern Asia; in particular, the *Rosa Kamschatica*, bearing solitary flowers of a pinkish white.

“ In Africa, on the borders of the vast desert of Sahara, and more especially in the plains towards Tunis, is found the *Rosa 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 *Rosa 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 *Rosa 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 *Rosa rubiginosa*, with pale, solitary, cup-shaped flowers. In Lapland, blooming almost under the snows of that severe climate, grows the *Rosa Maialis*, 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 scrubby evergreens among which the natives seek mosses and lichens for the nourishment of their reindeer, they find the *Rosa rubella*, already mentioned, the flowers of which are sometimes of a deep red colour.

“ The *Rosa 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 *Rosa 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 is found the *Rosa Sabini*, the *Rosa villosa*, the flowers sometimes white, sometimes crimson, blowing in pairs; and the *Rosa canina*.

“ The environs of Belfast produce an insignificant shrub, known as the *Rosa 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 *Rosa spinosissima* in poor soils, and the *Rosa canina* in loamy land.

“ Germany, though unproductive in rose-trees, boasts of several highly curious species. Among others, the *Rosa turbinata*, of which the very-double flowers spring from an ovary in the form of a crest; and the *Rosa 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 *Rosa Alpina*, an elegant shrub, with red solitary flowers, furnishing many varieties in cultivation; the *Rosa 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 *spinulifolia*, and the Scottish *Rosa involuta*, should be thus alike characterized by the smell of turpentine. There remains to be cited among Alpine roses, the *Rosa 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 afford a single species, though travellers describe the country as very productive in roses. In Greece and Sicily we find the *Rosa 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 *Rosa Polliniana*, with fine, large, purple flowers, growing in clusters of two or three, and found in the neighbourhood of Verona. The *Rosa moschata* and *Rosa Hispanica* flourish in Spain; the flowers, of a light pink colour, appear in May. The *Rosa 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 *Rosa eglanteria*, whose golden petals are sometimes varied into a rich orange. The *Rosa 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 *Rosa cinnamomea*, which derives its name from the colour of its branches; the flowers being small, red, and solitary. The *Rosa parvifolia*, 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 *Rosa Gallica* is one which has afforded varieties of

every hue ; more especially the kind known as Provins roses, white, pink, or crimson. In the eastern Pyrenees, grows the *Rosa moschata*, a beautiful variety of which is known in our gardens as the Nutmeg rose. The *Rosa alba* is found in the hedges and thickets of various departments ; as well as the *Rosa canina*, or eglantine, the stock of which, straight, elegant, and vigorous, is so valuable for grafting."

ARTICLE VIII.

ON THE UTILITY OF PRUNING AND THINNING AWAY PLANTS.

BY MR. WOODMANSEY, HARPHAM, NEAR DRIFFIELD, YORKSHIRE.

MR. EDITOR,—On looking over some back numbers of your very useful Cabinet, I met with two papers in vol. vi., pages 12 and 27, headed "Observations on the Dahlia, by a Star in the East," in which he is remarking upon the good and bad properties of several seedlings, and new ones, which at that time were making no little *stir* in the floricultural world. I remember, at the time of these articles appearing, of purchasing several plants which the writer of them strongly recommended; and I am sorry to say that, with all his recommendations, I found Berkshire Champion, Rival Scarlet, and Nulli Secundus, to be utterly worthless. The second season of growing the above kinds, I acted upon another of his recommendations laid down in the above papers, that of growing the plants (he recommended so to be) strong, and well thinning away the branches; but here again I completely failed, as I have not had one *tolerable* bloom of any of the kinds this season: consequently, I am led to suppose that the "Star in the East" is not altogether like that we read of in Matt. ii. 2—10, but some eccentric and wandering fire, more calculated to mislead the unwary than afford them true light.

Since, however, reading the above, I accidentally turned to a paper in vol. v. page 50, communicated by Joseph Hayward, Esq., to which I would beg leave to refer all your readers, as being a rational, well written, and philosophical paper. He tells us, that "The leaves form the excretory organs of a plant or tree; and whether the supply of food be great or small, the plant or tree cannot attain, or sustain itself in a perfect state of fructification, until it is furnished with a surface of leaves duly proportioned to the sap supplied by the roots. To enable them to perform their functions, it

is also necessary that the leaves should be duly exposed to the action of the light, and to the influence of the sun and the air. Now, according to this law, it must be obvious that the cutting back and shortening the branches, and lessening the quantity of leaves, must obstruct and retard rather than forward the production of flowers, seeds, and fruit."

Here, then, is a theory which, according to my slender knowledge, is founded on strict physiological principles, and yet it is diametrically opposed to the maxims laid down by the "Star in the East;" namely, *growing strong* and *well thinning away* the branches. It follows, then, as a matter of course, that one of the above axioms is wrong—it is very possible they may both be so—but it is an utter impossibility for them both to be right. I must confess that I am not physiologist sufficient to prove the doctrine of Mr. Hayward; but this I must say, that it appears to be based upon the simple laws of nature, while a practical application of the *cutting away system* has proved itself (at least with me) to have done more harm than good.

Again, Mr. Hayward observes: "It generally happens, that when a plant grows luxuriantly to leaves, branches, and stalk, it is but little inclined to produce blossoms; we may therefore justly conclude that, in such cases, there is a greater supply of food than the leaves are equal to; and that, although we cannot enlarge their powers, we can relieve their duties by lessening the supply of food, and thus promote fructification." Now, this again I have several times proved to be correct. When a plant (especially among Dahlias) has grown very vigorously, and has indicated no signs of coming into bloom, in order to cut off the superabundant supply of food, I have chopped round the plant with a spade, and, by thus dividing many of the small fibres, the supply of sap has been lessened and the plant has presently produced flower-buds and bloomed beautifully.

I conclude this paper by hoping, if this should meet the eye of Mr. Hayward, that he will favour the readers of the Cabinet with a few more of his very useful communications; and, should I ever meet with his little work, "On the Causes of Barrenness and Fruitfulness of Plants and Trees," I shall certainly become a willing purchaser.

Harpham, Dec. 13, 1839.

PART II.

LIST OF NEW AND RARE PLANTS,

Noticed since our last.

1. *ANIGOZANTHUS HUMILIS*. (App. to Bot. Reg.) Another pretty species from the Swan River colony. The flower stem appears to rise about a foot high, terminating by a head of brownish red and green flowers.

2. *ARBUTUS LAURIFOLIA*, Laurel-leaved Strawberry Tree. (Bot. Reg. 67.) Ericaceæ. Decandria Monogynia. Lord Napier introduced this species into this country from Mexico, and the plant was given to A. B. Lambert, Esq., who considers it to be the true kind. It appears to be a scarce plant, little being known of it, and is said to inhabit North America. Pursh judged it to be from the north-west coast. If this be the fact, Dr. Lindley at one time judged it to be the *A. Menziesii* of that botanist, and the *A. procera* of Botanical Register, fol. 1753. Upon a more exact comparison, however, it appears the entire raceme of *A. Menziesii* is covered with a fine down; and in the present kind the pedicles are nearly smooth, and the remainder of the raceme coarsely downy. The foliage, too, of the latter kind is larger than *A. Menziesii*. The flowers are small, white, produced numerously on a branching raceme.

3. *ARISTOLOCHIA CANDATA*, Livid-flowered Birth-wort. (Bot. Mag. 3769.) Aristolochia. Gynandria Hexandria. A native of Brazil, seeds of which were given to Sir Charles Lemon, Bart., and raised in the garden at Carclew, in Cornwall. It has bloomed in the plant stove at Woburn Abbey. It is a climbing perennial plant, having three lobed cordate leaves. The tubular part of the flower is pitcher shaped, curved like a syphon, of a dingy brownish green colour; the mouth expands into a large, rich, blackish brown.

4. *ATELANDRA INCANA*. (App. to Bot. Reg.) A native of the Swan River colony. It appears to be a neat growing plant, flowering freely, one flower proceeding from the axil of the leaf. Each flower is about three quarters of an inch across, of a violet-purple colour, with a small dark eye.

5. *CEREUS MARTIANUS*, Von Martius's. (Bot. Mag. 3768.) Cactææ. Icosandria Monogynia. A native of Mexico. It has bloomed in the fine collection at Woburn, where it has bloomed in the spring, very profusely. The stem grows nearly erect, but weakly, about three quarters of an inch in diameter. The flowers are of a beautiful deep red rose colour.

6. *CÆLOGYNE OCELLATA*, Eyeletted. (Bot. Mag. 3767.) Orchideæ. Gynandria Monandria. A native of the East Indies, from the Sermore mountains, introduced into this country by Messrs. Loddiges. It has recently bloomed in the collection of John Allcard, Esq., Stratford Green, near Loudon. The flowers are produced on an erect raceme, about six on each; petals and sepals of a pure white; lip white, tinged with yellow, and veined with orange; and within each lobe is a large orange spot.

7. *CONOSTYLIS SETOSA*. (App. to Bot. Reg.) A native of Swan River colony, having the appearance of a small flowered Ornithogalum, with yellow flowers. Each flower is about three quarters of an inch across. They are produced in a dens umbel.

8. *DIPLOPELTIS HUGELII*, Baron Hugel's. (Bot. Reg. 69.) Sapindacææ. Polygamia Monœcia. A native of the Swan River colony; seeds of it were obtained from thence by Mr. A. Toward, gardener to H.R.H. the Duchess of Gloucester. It is a hardy greenhouse shrub, growing about three feet high, and blooming freely in spring. The flowers are produced a branching terminal panicle, of a beautiful colour; each flower is about half an inch across. The plant thrives well in the open border during summer, where it will prove to be a very interest-

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ing plant. It is well worth a situation in every greenhouse and flower garden. *Diplopeltis*, from *diplos*, double, and *pelte*, a buckler.

9. *EPIDENDRUM CEPIFORME*, Onion Rooted. (Bot. Mag. 3765.) Orchidæ. Gynandria Monandria. Sent to this country from Mexico in May, 1838, to the Woburn collection. The flowers are produced very numerous in large panicles, which extend three feet high; sepals and petals of a tawny orange colour; lip of a yellowish green, beautifully streaked with red veins; and at the base a large white disk.

10. *GASTROLOBIUM CORDATUM*, a very neat growing plant, having roundish cordate leaves, producing numerous flowers on long racemes: they are of a fine golden yellow, streaked with brown. It is a native of the Swan River colony.

11. *GRAMMATOPHYLLUM MULTIFLORUM*, Many-flowered Letter-leaf. (Bot. Reg. 65.) Orchidæ. Gynandria Monandria. Discovered by Mr. Cuming in Manila, and by that gentleman sent to England. It has bloomed in the fine collection of Mr. Bateman. The flowers are numerous produced on a long erect raceme. The specimen of Mr. Bateman's had a raceme two feet long, having forty-eight flowers, each about an inch and a half in diameter; sepals and petals olive brown, with a green streak up the centre and at the edge; lip yellow, streaked with reddish brown. It is a very interesting species. *Grammatophyllum*, from *gramma*, a letter, and *phyllon*, a leaf; alluding to the marking of the leaves of the flower.

12. *JOHNSONIA HIRTA*. (App. to Bot. Reg.) A native of the Swan River colony. It appears to belong to the Gramineæ of the Hexandria class, the scaly-like; is of a fine rosy carmine colour, each edged and tipped with white. The figure gives the flower stem as growing about eight inches high.

13. *LASIANDRA PETIOLATA*, Petiolated. (Bot. Mag. 3766.) Melastomacæ. Decandria Monogynia. It is probably a native of Brazil. It was sent from the Botanic Garden, Berlin, to the Edinburgh Botanic Garden, where, in the plant stove, it bloomed very freely in June and July of 1839. It is a shrubby plant, growing five feet high, having long weakly branches, densely covered with hairs. The foliage has much the appearance of a Melastoma. The flowers are produced in large panicles, each bloom being about an inch and a half across, very much resembling a large flower of a *Solanum*, of a beautiful lilac, shaded with darker colour. *Lasiandra*, from *lasios*, hairy, and *aner*, *andros*, applied to the hairy filaments of some species.

14. *LAXMANNIA GRANDIFLORA*. (App. to Bot. Reg.) A native of the Swan River colony, having foliage like the common Thrift, from the midst of which spring up numerous flower stems, rising about five or six inches high. Each flower is about three-quarters of an inch across, like a small looseish double daisy; white on the upper side, slightly tinged with sulphur at the under side.

15. *PENTLANDIA MINIATA*, VAR. 2, *SULLIVANICA*; Red-lead-coloured Commodore Sullivan's variety. (Bot. Reg. 68.) Amaryllidacæ. Hexandria Monogynia. Commodore Sullivan obtained bulbs of this pretty variety during his command on the west coast of South America in 1837, and the plant has bloomed with Mrs. Sullivan at Falmouth. The first variety was sent from Peru to the Hon. and Rev. W. Herbert, under the name of Red Narcissus, by J. B. Pentland, Esq. H.B.M.'s Consul-General, and in compliment to that gentleman the genus is so named. The flower stem rises about a foot high, and the scape contains from four to six flowers. The flower is of a tubular form, belling, the mouth divided into six segments; it is near an inch and a half long, the mouth being about five-eighths of an inch across, and of a fine red-lead colour.

16. *TULIPA MALEOLENS*, Strong Smelling. (Bot. Reg. 66.) Liliacea. Hexandria Monogynia. Found near Florence in the fields and vineyards. The species is single-flowered; but a double variety, it is said, is grown in the gardens there. The flower of the present plant has a disagreeable scent; it is of a carmine red, having a tawny coloured outside, with a dark eye; inside surmounted by a white circle between the dark and the carmine red body colour. It is scarce in this country, but is in the collection of the Hon. W. F. Strangways, at Abbotsbury.

PLANTS OF THE SWAN RIVER COLONY, NOTICED IN DR.
LINDLEY'S APPENDIX TO BOTANICAL REGISTER.

RUTACEÆ.

- Boronia scabra*, with very small red flowers
 ——— *spathulata*, pretty pink flowers
 ——— *teretifolia*
 ——— *viminea*, flowers axillary, red
Eriostemum nodiflorum, flowers in compact heads of a fine blue
Diplopeltis Dampierii, pink flowers
Chorilæna quercifolia, greenish white flowers
 ——— *ramosus*, shrub, flowers blue
 ——— *tenuis*, annual.

LASIOPETALEÆ.

Plants of this tribe abound in the colony, there being four genera and fourteen species.

- Thomasia canescens*, apetalous (without petals)
 ——— *glutinosa*,* flowers bright pink
 ——— *grandiflora*,* flowers large, one inch across
 ——— *paniculata**
 ——— *pauciflora**
 ——— *stipulacea**

* These are beautiful flowering plants, very suitable for a conservatory.

Corethrostylis bracteata, a downy shrub, with cordate leaves, producing numerous forked racemes of crimson flowers, having long hairy styles like a bottle brush, and is one of the most beautiful plants of the colony.

Sarotes ledifolia, a shrub having large flowers of a light blue colour, and long hairy styles, looking like a bottle brush.

Leucothamnus montanus; grows to a large bush on the mountains; is rare; the flowers are bell-shaped, white.

There are five or six fine species of *Hibiscus*. That figured in our number for last November is one of the handsomest. We recently saw another in bloom of a deep crimson with a dark centre, which was handsome, a figure of which we shall give in an early number.

DROSERACEÆ.

The springy nature of the soil in the colony is most suitable to this tribe of plants.

- Drosera erythrorhiza*
 ——— *flicaulis*
 ——— *gigantea*; the flowers are white
 ——— *heterophylla*
 ——— *macrantha*, having rose-coloured flowers
 ——— *macrophylla*
 ——— *pallida*, flowers white
 ——— *stolonifera*, flowers white
Byblis gigantea, grows half a yard high, having large purple flowers.

PITTSPOURACEÆ.

- Sollya heterophylla*, flowers blue
 ——— *linearis*, very bright blue flowers. This has recently been introduced by Captain Mangles, R.N.
Campylanthra elegans, a twining shrub; flowers produced in clusters on cymes, lilac and white
 ——— *Frazerii*, flowers violet coloured
 ——— *speciosa*, flowers white
Marianthus candidus, flowers white
 ——— *pictus*, flowers white, with purple stripes.

COMPOSITÆ, OR ASTERACEÆ.

*Helichrysum macranthum**bicolor**Rhodanthe Mangeslii**Lawrencella rosea*, an annual, with very beautiful rose-coloured flowers, resembling the pretty *Rhodanthe*, but is handsomer*Xyridanthe stricta*, an annual, not of much interest*Pithocarpa pulchella*. The involucre is purple outside and white within*corymbulosa*. Both these plants resemble *Humea elegans**Cylindrosorus* (species)*Myrcocephalus* (species)*Brachycome* (species)*Lagenophora* (species)*Eurybia* (species)*Asteridea pulverulenta*, flowers like the pretty *Aster Novæ Angliæ**Aster exul*, flowers purple*Eriocladium pyramidatum*, flowers yellow*Amblyperma scapigera*, flowers large pale yellow, but the flower heads are white.

EPACRIDÆÆ.

*Conostephium minus**pendulum**Lissanthe verticillata*, known in this country under a wrong name, viz., *Lucopogon verticillatus*; a very pretty flowering plant*Andersonia aristata*, bearded flowers in close heads*Stenantha ciliata*, flowers red*Styphelia tenuifolia*, flowers long, pretty*Lysinema curvatum*, handsome*spicatum*, handsome.

GOODENIACEÆ.

Vellea lanceolata, flowers yellow*Goodenia rigida*, flowers blue*incana*, flowers blue. Both these resemble the *Lobelia**Euthales trinervis**Scævola multiflora*, flowers pale blue*anchusæfolia**calliptera**pilosa**plataphylla*, flowers white*squarrosa*, flowers pale blue*Leschenaultia biloba*, a beautiful plant, with bright blue flowers*glauca*, flowers red and yellow*grandiflora*, flowers deep blue*laricina*, flowers red and yellowThe well-known *L. formosa* and *L. oblata* are generally esteemed. The above fine species will be a great addition to this neat tribe.*Dampiera alata**cuneata*, flowers deep blue*coronata*, very handsome, rival to any *Lobelia**lavendulacea*, flowers fine blue*linearis*, flowers deep blue*fasciculata*, flowers deep blue.

STYLIDACEÆ.

This tribe abounds at the colony, there being forty or more species already found.

Stylidium bicolor, flowers white, with deep purple spots*Brunonianum*, flowers violet-coloured, stem two feet high*canaliculatum*, flowers pale yellow*caricifolium**caulescens*, flowers pink

- Stylidium compressum*, flowers bright rose
 ————— *crassifolium*, flowers violet, stem two feet high
 ————— *ciliatum*, flowers white
 ————— *diuroides*, flowers bright yellow
 ————— *hirsutum*, blue, as large as *Lobelia heterophylla*
 ————— *hispidum*, flowers white
 ————— *leptostachyum*, flowers white
 ————— *nudum*, pretty
 ————— *scabridum*, flowers white.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON BLOOMING THE DOUBLE YELLOW ROSE.—Some time ago I addressed a letter to the Conductor of the "Floricultural Cabinet," containing a *Query respecting the Double Yellow Rose*. As I have not seen *this* query amongst the others, in its proper place in the Cabinet, I must suppose it has never been received. I am very desirous to have it answered, if possible, in the next month's number.

The Query was this:—I have for some years been endeavouring, by different aspects, soils, and general treatment, to procure the perfect bloom of the *Double Yellow Rose*, but in vain; I scarcely ever saw a flower of this rose which was a perfect one; there is always a speck, if not a small hole, on the part of it which produces the hip or seed; I wish some of the readers of the Cabinet would have the kindness to inform me, *what causes* this rose to bloom imperfectly? and how it may be made to bloom in perfection, like the cabbage and other roses? and also, *what aspect and soil* is found to suit it best? I am a great admirer of this beautiful Rose, but have always been disappointed by its general failure.

F. C. P.

[Some useful instructions on what is requested, appeared in the Number for November, 1839, page 251.—CONDUCTOR.]

ANSWERS.

ON *VIEUSSEUXIA PAVONIA*, &c.—My notice was drawn to the subject of the *Vieusseuxia Pavonia* in your Number for March, 1839, and I very soon discovered, by a reference to the "Hortus Kewensis," (second edition) a standard book in as far as relates to plants known at the date of its publication, in 1810, having been made up after an inspection of the Linnæan Herbarium, that the two plants here called *Vieusseuxia Pavonia* and *V. Glaucoptis*, are there called *Moræa pavonia* and *Moræa tricuspis*. The reference to plates for the first is Ker, in Botanical Magazine, 1287; to the second is Ker, in Botanical Magazine, 696, 772, and Curtis's Magazine, 168. There is also a reference to Redouté Liliacæ, 42, under the name of *Vieusseuxia glaucopsis*; if Aiton is right London is wrong, who refers to these plates as belonging to two separate plants, which he calls *Vieusseuxia tricuspis*, where he refers to Bot. Mag. 696; and *V. glaucopsis*, where he refers to Bot. Mag. 168. An examination of the plates will probably determine this. I incline to think that the *V. tricuspis* and *V. glaucopsis* are the same plant.

There is a very minute description of these plants in Martin's edition of Miller's Dictionary, under the names of *Iris pavonia*, (39) and *Iris tricuspis*, (17) to which I may refer Burriensis, but I shall mention the flowers of each, as it fully establishes the difference of the two plants. *Iris pavonia* is thus described:—"This beautiful flower is orange coloured, with black spots and

dots at the base, and a heart-shaped blue spot above the base, which at bottom is tomentose and black." The *Iris tricuspis*:—"Border of the larger petals white, suborbiculate, (roundish,) with a point, claws green on the outside, yellow within, dotted with black. Smaller petals several times shorter, claws convex on the outside, green, concave within, dotted with brown, the length of the larger ones but narrower. It varies in the shape of the larger petals and very much in the colours, blue, purple, yellow, white, and spotted." He then gives Curtis's description of the flower:—"Three of the petals large and white with a brilliant blue spot at the base of each, edged on the outer side with deep purple."

Redouté, a French botanist who wrote upon Iliaceous plants, changed the name of the genus to *Vieusseuxia*, which, although rejected by Aiton, has been adopted by *Sweet* and *Loudon*, and will probably be retained, having been adopted by De Candolle.

It appears to me that the confusion has arisen from Curtis, in his *Magazine*, calling the *tricuspis* "*Iris pavonia*." From Burriensis's statement, it is apparent that the bulbs sold in the seed shops as *Iris pavonia*, are the *Vieusseuxia tricuspis*, and the *Iris pavonia*, second size, (Lockhart) or *Iris pavonia minor* of other shops, is the *Moræa tenuis* or brown flowered *Moræa* of the Hortus Kewensis, of which a figure will be found in the Botanical Magazine, 1047. This plant was introduced in 1807, and is, like the two others, a native of the Cape of Good Hope.

If Burriensis wishes to get the true *Vieusseuxia* (*Iris* or *Moræa*) *pavonia*, he must apply to some of the great nurserymen near London, in particular any of them who have a correspondent at the Cape of Good Hope; and failing there, to the Botanic Gardens of Liverpool or Glasgow, both of which dispose of plants.

I observe both *Iris pavonia* and *Iris tricuspis* in page of Southampton's *Prodomus*, published in 1818; but, as he makes the colour of both *black* and *white*, there appears some danger of a mistake.

SCOTUS.

ON ERECTION OF A GREENHOUSE, &c.—I shall not pretend to give instruction to your "*Country Subscriber*," (page 89, April, 1839), regarding his greenhouse, but would recommend him to consult some of the new publications on the subject. I can, however, give him some hints, having myself erected one many years ago. After it was built a professional man recommended a flat stage, which I had accordingly, but I found it kept the plants too far from the glass, (which would be still more objectionable for geraniums, which grow better near the glass) and drew the plants, and I was forced to put up the usual stage. I do not like the back light as exhibited in the sketch, as it will make the house cold in winter, and will require an additional power of heating. I have no practical knowledge of Arnott's stove; (although the objection of a dry heat would be easily removed by putting a flat iron dish with water on the top of it;) I would prefer the heating with hot water, or even common flues to it. I would recommend good Norway timber well seasoned before it is put together, (and if kyanized, cut before it is done so); and if I were building a greenhouse at present, I would do it upon the plan of Messrs. Chandler's camellia house at Vauxhall, where the top sashes are all fixed, every third or fourth astragal being stronger than the rest, whereby a great saving of material is effected. Your correspondent will find a picture of it in the "*Gardener's Magazine*" some years back. I would ventilate the house from the front upright sashes, and two ventilators at the back. The panes of glass should be *square*, either four, five, or six inches; if one is broken it can be used by turning it. I had vines in my house for some years, but took them out because they required heat in the spring more than suited a general collection of greenhouse plants; but geraniums bear forcing better than the heaths and other plants usually found in greenhouses. The panes of the roof should be puttied with black putty—it prevents breaking from frost.

From the alteration in the mode of charges in postage, it is obvious that many of the smaller flower seeds can be sent *by post* at a small expense. It would save correspondence if your advertisers would annex the prices, (more

particularly to these,) so that if any one wishes to give an order, he can send a post office order, of which the expense varies from sixpence to two shillings, and get back the seeds wanted in course of post. Scorus.

P.S. I sowed a few seeds of *Nemophila Atomaria* last spring; one of the plants, which differed from the others, had a *light blue border* round the flower, but in no other respect differed from the others. As I do not find this is usual, I directed the seed to be saved, and will ascertain whether the variety will continue.

[We hope it will, as it will be a very interesting variety.—CONDUCTOR.]

FLORICULTURAL CALENDAR FOR JANUARY.

GREENHOUSE.—This department should have good attendance during this month.—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 favourable, 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 *Amaryllis*, &c. Tender and small kinds of plants should frequently be examined, as to have surface of soil loosened, decayed leaves taken away; or if a portion of a branch be decaying, cut it off immediately, or the injury may extend to the entire plant and destroy it.

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

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 at the end of the month be top dressed, taking off old soil an inch deep, and replacing it with new.

BULBS, as **HYACINTHS**, &c., grown in water-glasses, require to be placed in an airy and light situation when coming into bloom. (See Art. vol. vi. on the subject.) 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 at the end of the month, and be placed in a hot bed frame, also cuttings or slips be struck, as they take root freely now.

CUTTINGS of **SALVIAS**, **FUCHSIAS**, **HELIOIOTROPES**, **GERANIUMS**, &c., desired for planting out in borders or beds during spring and summer, should be struck in moist heat, at the end of the month, in order to get the plants tolerably strong by May, the season of planting out.

DAHLIAS.—Dahlia roots, where great increase is desired, should now be potted or 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 year's 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.

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

TENDER ANNUALS.—Some of the kinds, as Cockscombs, Amaranthuses, &c., for adorning the greenhouse in summer, should be sown by the end of the month.

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

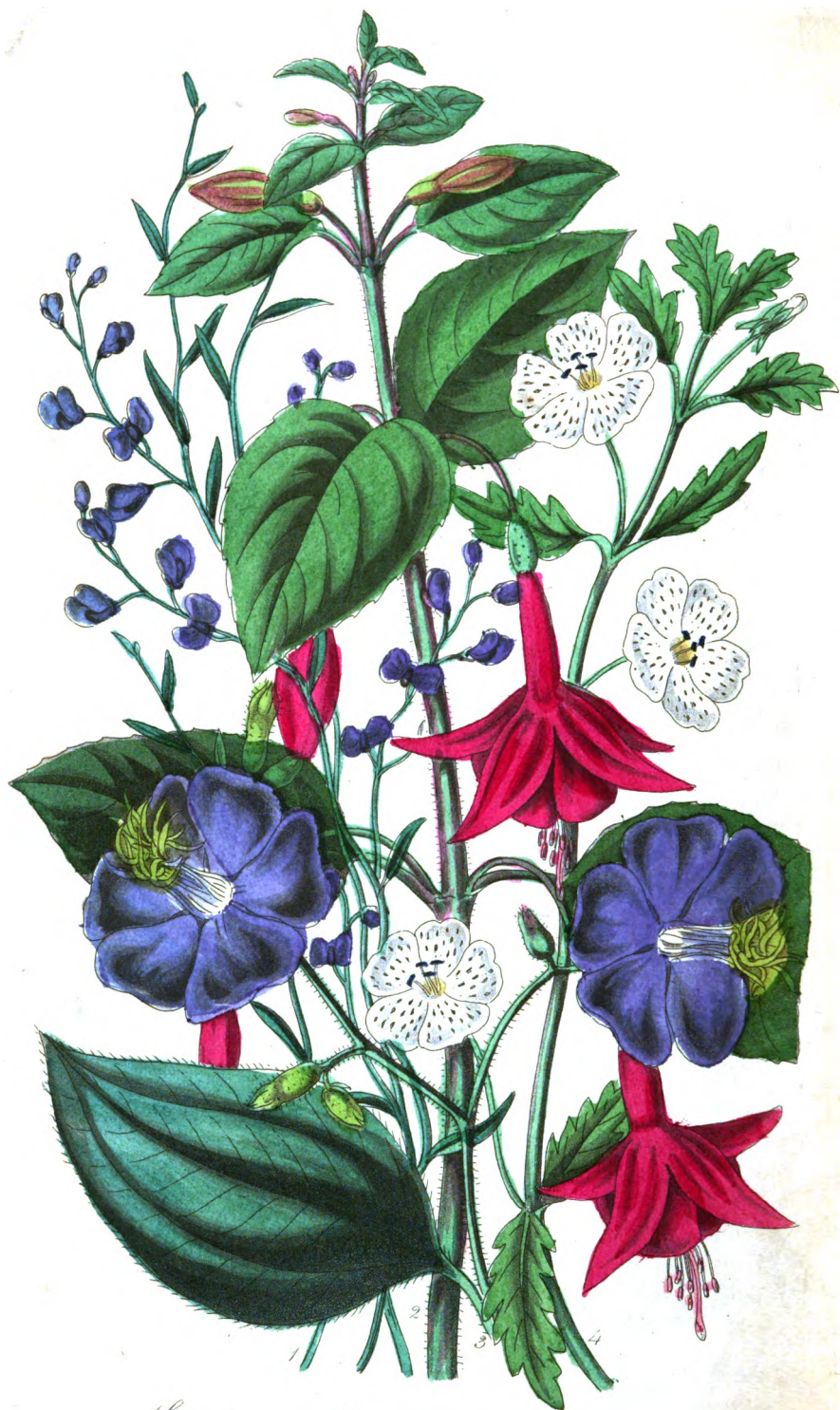
REFERENCE TO PLATE.

GARDOQUIA MULTIFLORA. This very interesting plant was introduced into this country from Chili in 1836. On its first introduction it was generally grown in the plant stove, where it became a weakly plant, and its blossoms small: recently, however, it has been treated as a greenhouse or conservatory plant, and in summer to be grown in the open border; in each situation we have seen it, as its specific name imports, in profuse bloom. The plant delights in a rich loam, having a small portion of sandy peat mixed in it, and the pot to be well drained. We have found it to be soon destroyed by over potting, and that it is best for it to be rather under potted than otherwise; and in order to have the plant vigorous, it should often be repotted: thus treated, it will not fail to be a most delightful plant for a greenhouse or conservatory, and when grown in the open border it is almost a mass of flowers. It is very ornamental and interesting when grown in a mass. If a small bed of it, it is best to raise the bed tolerably high at the centre; when so arranged it shows the flowers to advantage. The plant is a free grower, when properly treated. It is of easy culture if only attended to with regularity agreeable to the foregoing instructions. The plant is very readily propagated by slips, or cuttings, struck in sandy peat, in a gentle heat, so that a plant being obtained, a stock for ornament is soon provided. The plant is well worth a place in every flower garden, greenhouse, or conservatory. It continues to bloom from the end of April till November.

LOBELIA IGNEA. We have on former occasions noticed the new and beautiful species and hybrid additions of this ornamental and interesting tribe of plants. The present plant is the most superb of its colour, as well as of gigantic stature; the plant we saw in bloom at the Pine Apple Nursery, was about five feet high, with numerous branches, and all terminating in a spike of most brilliant coloured flowers. The peculiar colour, too, of the stem, branches, and foliage, give it additional interest. It is like the other kinds, growing very freely, easily propagated and preserved, deserving a place in every flower-garden or greenhouse. This, as the centre plant in a bed of the other interesting and beautiful blue, blue and white, rose, pink, white, purple, and lilac kinds, would give a fine effect. Having a stock of all, we intend to grow them so the coming season. We have seen a most beautiful bed in this way without the addition of this new and splendid kind. It has been stated that seeds of it were sent from Mexico, and by others it is an hybrid production of our own gardens. It is, however, a most desirable plant. When a plant is desired to be made, as it were, a bushy one, the central stem, as was the case with the fine specimen we saw, should be stopped at about six inches high; this induces the production of lateral shoots, and by giving the plant plenty of additional root room, either in pot or open border, the result is a number of flowering stems are produced. The plant is as hardy as the other kinds alluded to, and as readily propagated.

VERTICORDIA INSIGNIS. This very interesting and pretty heath-like plant is a native of the Swan River colony, and forms a neat bushy shrub, flowering freely. We had specimens and seeds sent us by our very respected friend John Young, Esq., Coddington, near Newark. The plant deserves a place in every greenhouse. We received, too, a number of other kinds of seeds, and having succeeded in raising plants, they appear of interest already, though not bloomed. We hope to have several in flower the coming season, which will prove valuable additions to our greenhouse and frame plants.

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1 *Homosperma gracilis*
 3 *Lasiandra petiolata*

2 *Fuchsia Standishii*
 4 *Nemophila alenarica*

THE
FLORICULTURAL CABINET,

JANUARY 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

OBSERVATIONS ON THE OLD DOUBLE YELLOW ROSE.

BY SURREYENSIS.

YOUR correspondent, K. C. P., might have seen the Double Yellow Rose in as great perfection as the common cabbage rose, two years ago, at the rooms of the Horticultural Society, for which the gentleman who grew them obtained a medal. You refer to Rosa's observations in November, but, with all due deference to the lady, there are many contradictions in them. She supposes that, as they are abundant at Genoa and Florence, they must require a warm aspect, whereas she says the one against a south wall at Burleigh is sickly, and produces no perfect flowers (she does not say what is the aspect of the parapet wall, where the flourishing one grows). Her own flowered very well on the north side of the vase, whereas on the south the flowers came to nothing.

This is the sum of my experience, which, from an accident, will not prove much. I budded an old Brown's superb rose, in 1838, with the buds of yellow Provence, only one bud sprouted (the others are yet alive but dormant); it was so vigorous it resembled a birch broom; it was against a north wall: unhappily I had not nailed it sufficiently or firmly against the wall, so that in those wet hurricanes in July, what with its size and the additional weight of the water, it broke off, to my great disappointment. Its appearance was as healthy and more vigorous than the dog rose. I have still many

very promising buds put in in 1838 and 1839; time will show what they will turn out. I live within four miles of St. Paul's, and it is said to be impossible even to keep the plant alive so near the London smoke; it may be so on its own root, but budded I have little fear of its succeeding. It is the most beautiful of all flowers, and the most rare; and as a proof of this, when the gentleman who exhibited them at the Horticultural meeting went to claim his flowers, they had all been carried off.

O tempora! O mores! Forty years ago (so you see I am no chicken), a nobleman's gardener in Gloucestershire used to send them up weekly to London as perfect as the common rose, but when that gardener died they ceased with him. All I could learn from one of the family was, that they grew against a wall out of doors, and that the gardener was in the habit of smoking them, no doubt to destroy the insect that so infests them.

I tried planting chamomile near them, which I had been told would make them bloom, but it killed both the plants it grew near. In the "Bon Jardinier," the direction is, "les sols les plus arides lui conviennent," whereas it was on a chalky soil those grew that were exhibited and so much admired as above referred to. I believe also, like the *rosa Banksia*, it must be of some age before it will show for bloom.

Should I be alive and have any success with those buds, which my gardener assures me look very promising, I will not fail to let F. C. P. know it through your Magazine.

January 2, 1840.

ARTICLE II.

ON BLOOMING THE TROPÆOLUM TUBEROSUM.

BY A DEVONIAN.

HAVING seen in the present month's Cabinet, a request that any of its readers, who have bloomed *Tropæolum Tuberosum*, would detail the method they used to ensure success, I beg to state, for the information of my fellow florists, the plan I have pursued. In 1837 I first saw the plant in the magnificent collection of Messrs. Luccombe and Pince, of the Exeter Nursery; it was growing in a pot,

and having been informed that it was a new species, which had not bloomed in England, I immediately purchased it. In a few days it was planted at the base of a column in my conservatory, which, being light and lofty, I trusted would ensure its success. In this hope, however, I was disappointed, for the plant grew weakly and showed no symptom of a blossom. When taken up, four or five tubers were found, which, about the beginning of March, were planted separately in pots, and plunged in a back pit, and in May were turned out into the open ground. The soil in which they were planted was a rich compost, in which they grew luxuriantly; and in September and October they formed a verdant cone many feet high and flowered abundantly. I presented one of the roots to a friend who planted it against a wall, where it attained a great height and bloomed freely. This year also, my own plants and those of my friend's, planted both against a wall and in an open bed, have flowered beautifully, though perhaps the colour of the blossoms was not so vivid as when the autumn has been more clear and sunny. These hints, I fear, will afford W. R. but little assistance; but the result of my experience is, that the plants only require to be started as early as possible in the spring, turned out in a rich loamy soil, and, if in an open border, to be surrounded by *strong, tall, feathery* stakes, which, in two or three months, they will completely envelope, and well watered in dry weather. The situation should of course be a sheltered and sunny one. I have seen the plant growing in a town garden, but I doubt its ever flowering in a close smoky atmosphere. I found it resisted a frost which cut off the Dahlias. The increase of the tubers is prodigious, as from one strong tuber I had 102 good sized ones.

ARTICLE III.

ON GRAFTING.

BY THE AUTHOR OF THE GARDENER'S MANUAL.

EVERY day's experience shows us the truth of the old adage, that "practice makes perfect." A nurseryman, for instance, grafts and buds (for we now include "budding" under the general term of our title) hundreds of trees and shrubs yearly. He goes from stock to

stock in rapid succession, and almost every individual operation succeeds. An *amateur*, at least a *tyro* in the art, takes infinite pains, and spends as much time in one attempt as would suffice for the practised hand to finish off ten, perhaps twenty subjects, yet fails in toto. Thus it happens, year after year, even with the wise, the physiologist, who is intimately acquainted with the rationale of the processes: expectation, labour, disappointment, are the companions and fruit of his zeal, and thus accounts are balanced, for the pride of science is humbled by the greater adroitness of the routine practitioner.

After this moralizing, we are not going to write a disquisition on the philosophy of grafting and inoculation; books and treatises on the subject abound to profusion, and are very useful, if not *abused*. But there is one peculiar variety of the art of grafting, of recent introduction, which must as yet be little known to domestic gardeners; and as it is extremely ingenious will, if successively attempted, not only amuse, but gratify and instruct: the season also is most suitable to it, and no time should be lost.

The *Camellia* has rarely succeeded with independent grafting or budding by the usual processes; but if *inarching* be carefully performed, the object is generally attained. There are great objections, however, to it, as has been long remarked, for the shrubs are bent and strained to deformity.

In grafting, the juices of the stock should be moving; therefore, every plant of the single red, which is to be grafted, should immediately be placed in a frame or moist stove, where the heat, by fire or dung, is not under sixty degrees, and be there retained till the leaf-buds evidently enlarge. Small plants, ten or twelve inches high, with good heads and healthy foliage, and having main stems about one fourth of an inch broad at the surface of the soil, are adapted to operation.

The *double* varieties which are to furnish the grafts ought to be excited also, till the buds become in the proper condition.

If old plants be selected, the graft must be chosen from among the upright and strongest shoots, for the great object is to obtain *one terminal* growing bud at the apex of the *last year's wood*, which approaches most nearly in breadth to that of the stock.

It will appear from what has been said, that a strong young

Camellia, with a single, straight stem, must supply the best bud ; for not only will it be most vigorous and juicy, but, by being cut back to a certain extent, will be made to send forth two or more lateral shoots, low on the stem, which will become the first branches of a well formed head.

When the bud chosen has grown half an inch long, showing its imbricated integuments, it is to be cut off with about an inch of the ripened wood. The *stock* is then to be cut over to within two inches of the soil, and both it and the wood of the scion are to be correctly pared by a very sharp knife, till the two surfaces match perfectly to the extent of an inch or more. Care must be taken not to intrude upon the base of the growing bud.

The adaptation being perfected, the parts are to be fitted to each other, bound tightly, and secured with strong soft bass, made quite pliable by soaking it in water.

The surfaces are then to be entirely covered with good grafting wax, worked up and rendered quite soft by the hand.

Thus the operation will be finished, and so complete is the success which attends it, that we were assured, by a very skilful operator, that of fifty grafts rarely *one* failed to grow.

But *this success depends entirely upon the total exclusion of air* ; and this must be effected by inverting a cylindrical glass vessel (a glass tumbler will do extremely well) over the plant, pressing the rim firmly into the earth, removing it as seldom as possible. No bottom heat is admissible ; but a steady temperature of sixty degrees will promote the junction of the scion with the stock. In the excitable condition of a bold, swelling bud, growth will soon be apparent, provided the stock be active. But if the inserted bud be poor and weak, it is possible that it may not be able to receive the rising sap, and thus both members will perish.

ARTICLE IV.

ON AN IMPROVED MODE OF HEATING GREENHOUSES.

BY A FLORIST.

I TAKE the liberty of sending the following novel mode of *heating greenhouses* to you, hoping that it may prove useful to some of the

numerous readers of your publication. I have adopted it, and feel perfectly confident of its success.

It consists simply of a *brick stove*, on the same principle as that of Dr. Arnott, with a cast iron top and air-tight doors. I find it distributes the heat much more equally than an iron one. A stove of this description, two feet by seventeen inches, and three feet high, is sufficient to heat a large greenhouse, requiring no chimney, a small pot tube being quite sufficient, and only consuming about a peck of cinders per diem. It requires a valve in the bottom door, by means of which the heat may be regulated to any temperature.

ARTICLE V.

ON THE SPORTING AND UNCERTAIN CHARACTER OF FLORISTS' FLOWERS.

BY MR. W. WOODMANSEY, HARPHAM, NEAR DREFFIELD, YORKSHIRE.

I KNOW not whether other florists have remarked the sporting and uncertain character of what is commonly denominated florists' flowers; or whether soil and situation may not have a tendency to make them do so: but this I know by painful experience, that with a few solitary exceptions, the flowers, and especially dahlias and pansies, that I have purchased by a written description alone, have proved themselves sportive, uncertain, and, in many instances, comparatively worthless. But, perhaps, it may be a natural case, that flowers which are forced by cultivation into different shapes, different colours, and different sizes from their originals, will always have a tendency to return to their pristine state. However, I would confine my remarks in this paper to the Dahlia alone; and if they be deemed worthy a corner in your valuable Cabinet, I shall, perhaps, at some future period, forward you a few more papers with remarks on the other florists' flowers.

It is a fact that there are a few Dahlias which have invariably given me entire satisfaction. These are *Springfield Rival*, which in my humble opinion ought to be christened over again, and the appellation of "KING OF THE FIELD" given to it, for, after all that has been said about many new upstarts, I have never yet seen one to equal it. *Alpha* is a good old flower, so is *Lord Lyndhurst*, *Dodd's Mary*

Topaz, Ruby, Yellow Perfection, Doctor Halley, Rival Sussex, Whales's Royal Standard, Suffolk Hero, Victory, Addison, Triumphphant, Sarah; Widnall's *Perfection, Marquis of Lothian, Eva, Essex Rival, Shakspeare, Sir Walter Scott, Duke of Sussex, Ansell's Unique, Lilac Perfection, Metropolitan Perfection, Blandina*, and perhaps many more that I have not seen, have borne the burden and heat of the day, and have maintained their rank and superior character among a host of new and highly praised flowers, which have sunk into forgetfulness to be remembered no more. But these stand the test yet; with these in a garden¹ we may always cut a tolerable stand of flowers; and those who are about to form a collection, I would advise to purchase these good old sorts. And now for those that have proved good for nothing. Widnall's *Apollo* was represented as being of the shape of *Springfield Rival*. I purchased a plant of Mr. Widnall himself, and every flower came with an open eye and very small; *Granta* was only an every other year flower; and *Lady Dartmouth* has never brought me one good flower these last two seasons; *Jones's Sulphurea elegans* was eulogised very highly when it came out. I have grown it three seasons without producing three flowers fit to show. *Dodd's Mrs. Glenny* has never bloomed a double flower with me; and his *Duke of Wellington* has been very little better these last two years, every flower being semi-double, and the inner petals curled in all directions. However, if I live, as I like its colour, I will try it another season; I will grow it in peat and road-scrappings, in very poor loam, and in sand and lime rubbish, and if it then fail, farewell to his *Grace*. *Berkshire Champion* was represented as a first-rate flower; the first bloom of it had six petals, and every other was open-eyed and very small. *Rival scarlet* and *Nulli secundus* are both very small, and very uncertain; *Beauty of the West Riding* is very bad; *Rosea Elegans* is uncertain, but when right it makes up for all; *Star of Buckland* is a real impostor, the colour is bad, the tip is bad, and every flower is completely single; *Kingcote Rival* is really good for nothing, and *Salmon's Perfection* quite as bad; *Allen's Flora* is pretty when perfect, but that is not twice in a season; *Warrick's King of the Tips* is a very poor, small thing, not worth a straw; *Purple Perfection* is good in colour, but not one flower in a score is anything like perfect; then there is *Sir Robert Peel* and *Brown's*

Bronze, neither of which are worth growing. There are scores of others which I have grown, but which I cannot call to mind just now, that have just given me as much chagrin, and which are so little to be depended on, as almost to make any person, not a real lover of flowers, to vow never to grow Dahlias any more.

[We gladly insert the observations of our respected correspondent, and believe the statements are correct, so far as he has had experience with the kinds named; but in other situations, and probably by a different course of cultivation, we have seen several of the kinds produce flowers of a superior character, some of them have even been among the winning flowers, in stands of twelve and twenty-fours, at some of the first exhibitions during the past season. In the selection, two of those kinds which our correspondent deems first-rate we do not wholly agree with; some of them, viz., Springfield Rival, Essex Rival, Dodd's Mary, Whales's Royal Standard, Rival Sussex, Suffolk Hero, Unique, and Marquis of Lothian, are well deserving places in every collection, where they are grown for competing at any exhibition, but we would not grow these to the exclusion of the newer kinds, which equal the above, and very far exceed some of them in superior properties. Many such we have seen exhibited during the past season, and which have already been offered to the public, or, as it is usually termed, are to be let out the ensuing spring. We offer some other remarks on Dahlias elsewhere in this number, to which we refer our readers.—CONDUCTOR.]

ARTICLE VI.

ON THE CULTURE OF BULBOUS-ROOTED FLOWERING PLANTS.

BY A YOUNG GARDENER.

THE following cursory remarks on the treatment of bulbous-rooted plants are submitted to you for the Floricultural Cabinet; if thought worthy a place therein, I shall be glad of their insertion.

Bulbous plants, from their nature and appearance, associate ill with others; and this, together with many peculiarities in their cultivation, render it necessary to devote a separate structure entirely to them, in order to carry on the necessary operations on which depend their successful cultivation. The kind of house best adapted for these plants appears to be that of a span roof, provided with benches sufficiently near the glass in the middle and on each side the

pathway; that in the middle being appropriated to the largest specimens, the others to contain the smaller plants of the collection. The use of artificial heat in the culture of bulbs is one of the most important points: from their nature they require a season of rest, which ought to commence after they have done flowering and *fully matured their foliage*; it is then that water should gradually be withheld till the leaves are decayed, it may then be discontinued altogether. The period of rest is uncertain, some plants requiring more than others, but from one to three months, according to the habit of the kind, is the most usual time; they are then to be *slowly* stimulated till they commence growing freely, after which they cannot be too liberally encouraged.

The use of artificial heat I have observed is a very important point; it should be as gradual as the application of water, and when commenced, and the plants thriving in it, it must not be withheld till after the flowers are decayed and the foliage mature, excepting, perhaps, the time they are actually in bloom; any decrease of temperature during the growth of the plant would, perhaps, be the cause of the bulb not flowering, and thus create a disappointment which frequently happens from this very cause. The genera which require this artificial heat are principally the following:—*Amaryllis*, *Coburghia*, *Gloriosa*, *Chlidanthus*, *Cyrtanthus*, *Polianthus*, *Nerine*, *Brunsvigia*, *Hæmanthus* and *Ammochoas*, as a primary class, requiring the greater degree. As a secondary class, requiring a much less share, I may mention,—*Ixia*, *Gladiolus*, *Babiana*, *Antholyza*, *Sparaxia*, *Oxalis*, *Cyclamen*, and others. I beg to repeat, that both heat and water must be applied by *gradually increasing* them, and decreasing them in the same manner after flowering. The bulbs of all, of course, while in a state of rest, must be kept in a *low* temperature.

Surrey.

P.S. I should feel much obliged if you can inform me in the next Cabinet what number of the "Gardener's Library," advertised in your work, will commence the subject of laying out and ornamenting ground, as I am desirous of purchasing that part of the work.

[Nothing of the kind has come under our notice; when it does, we will add a note to that effect, in our remarks to our readers and correspondents.—CONDUCTOR.]

PART II.

LIST OF NEW AND RARE PLANTS.

DR. LINDLEY has given an appendix to his admirably conducted publication, the *Botanical Register*, which contains an Index of all the plants figured and noticed in the work, from its commencement to the present time, and a sketch of the vegetation of that very interesting floral part of the world, *the Swan River Colony*. We gave a list of some of the plants in our last number. That country has become of peculiar interest to British plant admirers, from the circumstance of the very beautiful and numerous productions which have been introduced into England by the very liberal and indefatigable exertions of Captain Mangles, R.N. So numerous have been the kinds of seeds introduced, and as liberally distributed by Captain Mangles, that several of the plants when blooming, have been differently named by various botanists, to prevent confusion, as well as to furnish an account of the productions of that remarkable Colony. Dr. Lindley has furnished us with a numerous list, and description of its plants, and figures of some. This will furnish purchasers of plants with a guide, so as to be correct to kind, and of those plants not bloomed in this country, whether they possess such interest or beauty.

Dr. Lindley has laid the floral community under considerable obligations to him for these additional services, and the thanks of all plant admirers are especially due to the doctor for them, and each of them ought to procure the publication.

In it it is observed that the Swan River Colony is on the south-west coast of New Holland, about two degrees nearer the tropic than Sydney, on the opposite coast, the mouth of the river being nearly in 32 degrees south latitude, whence it runs in a north-east direction. The area of the colony is about fifty miles by thirty. The country is of the open forest kind, with undulating plains, covered with a vast profusion of plants; a considerable proportion of the trees belong to the genus *Eucalyptus*. The Darling range of limestone mountains rise about 2000 feet above the sea, and are covered with beautiful evergreen trees. Its soil is various: near the coast it is sandy, and in it trees, shrubs, and grass, grow freely. In the level parts of the country the soil is alluvial, and produces admirable crops of corn without the aid of manure. On the high grounds and banks of rivers the soil is a red loam, and produces fine crops of corn, &c., but requires the aid of manure. The climate is very similar to the south of Italy, so that any of the plants introduced here may be expected to flourish in the open air during summer, but will usually require a winter protection. Of the tribes of plants with which the country abounds, that of the *Myrtaceæ* is the most valuable; it comprises the *Epacridæ*, *Orchidacæ*, *Goodeeniaceæ*, *Compositæ*, *Lasiopelateæ*, *Hæmodoracæ*, *Rutacæ*, *Leguminosæ*, *Stylidacæ*, *Chamælanciæ*, *Droseracæ*, and *Pittosporacæ*. Of the plants in *Chamælanciæ*, it is observed that they principally are bushes, whose foliage is like the heaths, having brilliant yellow, purple, or white flowers, which are produced in heads.

Particular descriptions are given of the following plants:—

IN MYRTACEÆ.

- * *Calytrix angulata*, flowers yellow
- *aurea*, golden yellow
- *breviseta*, lilac
- *glutinosa*, yellow, tinged with purple
- *sappharina*, deep violet
- *simplex*, lilac
- *variabilis*, lilac

* The calytrix forms its flowers in a head somewhat resembling the common border flower, Sweet Sultan. We have recently seen several plants in bloom. Some of these enumerated must be very beautiful.

- Chrysorrhoe serrata*
 _____ nitens, golden yellow
 * *Verticordia acerosa*, pale yellow
 _____ densiflora, white
 _____ heliantha, deep yellow
 _____ setigera, lilac
Lhotskya acutifolia, yellow
 _____ violacea, bright lilac
Hedaroma latifolium, pale rose
 _____ pinifolium, dark purple
 _____ thymoides
Melaleuca callistemonea, pale rose
 _____ parviceps, pink
 _____ parviflora, white
 _____ radula, pink
 _____ seriata, rose
 _____ spinosa, yellow
 _____ tricophylla, pink
 _____ viminea, white
Conothamnus trinervis, yellow
Colothamnus eriocarpa
 _____ laterilis
 _____ purpurea
 _____ sanguinea
Beaufortia macrostemon, scarlet
 _____ purpurea, purple
 (Figured under the name *Manglesia Purpurea*.)
Callistemon phœniceum, deep crimson
Salicia pulchella, deep purple
Eremaea ericifolia, greenish white
 _____ fimbriata, rich purple
 _____ pilosa, pink.

LEGUMINOSÆ (OR FABACEÆ.)

- Mirbelia floribunda*, fine azure blue
 _____ dilatata, bright purple
Oxylobium cuneatum
 _____ dilatatum
 _____ obovatum
 _____ parviflorum
Jacksonia densiflora
 _____ floribunda
Pultenea ericifolia
Gastrolobium acutum, yellow and brown
 _____ calycinum do.
 _____ cordatum do.
 _____ obovatum do.
 _____ oxylobioides do.
 _____ parvifolium do.
 _____ spathulatum do.
 _____ spinosum do.
 _____ trilobum do.
 _____ villosum do.
Daviesia angulata
 _____ longifolia
 _____ pedunculata
 _____ polyphylla
 _____ quadrilatera
 _____ ramulosa

* This is a pretty family, in appearance like the *Diosma*; it is well worth possessing.

- Aotus cordifolius*, yellow
Acacia auronitens, deep yellow
 ——— *alata*
 ——— *diptera*
 ——— *Drummondii*
 ——— *extensa*
 ——— *ocnophylla*
 ——— *pulchella*
 ——— *squamata*
Lalage hoveæfolia
Labichea punctata
Isotropis striata
Orthotropis pungens, yellow
Ptychosema pusillum
Cyclogyne canescens, pale blue.
Petrophila (so similar to *Isopogon* that Dr. Lindley observes they ought to be united).
 ——— *seminuda*, a fine growing species, with heads of yellow flowers.
 ——— *biloba*, producing its feathery flowers in spikes six inches long.
 ——— *brevifolia*, *heterophylla*, *juncifolia*, *glanduligera*, *intricata*, and *linearis*, all interesting plants, but the colours of flowers not described.
Persoonia Frazeri macrostachya, *Drummondii*, and *Laureola*.
Hakea ruscifolia, *cristata*, *glabella*, *undulata*, *triformis*, *mixta*, *pilulifera*, *tricuris*, and *cyclocarpa*, singular in foliage.
Grevillea bryacantha, having purple flowers.
 ——— *eristachya*, with spikes about six inches long, and is a plant of much beauty. *G. Thielmanniana* is a magnificent species, having large clusters of crimson flowers.
Manglesii (similar to *Grevillia*), so named in compliment to Captain Mangles, R. N. and R. Mangles, Esq.
 ——— *glabrata tridentifera*, and *vestita*, forming small shrubs.
Tetratheca hirsuta, flowers pink.
 ——— *rubriseta*, purple and rose-coloured flowers.
 ——— *nuda*, bright crimson flowers.
 ——— *pilifera*, dark purple flowers.
Comesperma volubilis, blue flowers.
 ——— *conferta*, violet-coloured flowers.
Pigea glauca, a violaceous plant, flowers violet and white.
Isotoma Brownii (Synonym. *Labelia hypocrateriformis*), grows about two feet high, flowering numerous flowers of a rich violet with a crimson eye.
Lobelia heterophylla and *ramosa*.
Anthrotroche pannosa, flowers deep purple; the shrub appears as if buried in wool, out of which peeps the flowers.
Mallophora globiflora, flowers white.
Hemiandra rupestris, flowers purple.
Atelandra incana, flowers purple.
Halgania cyanea, flowers blue, and *H. corymbosa*, purple.
Pimelea spectabilis, flowers pink, in heads about two inches in diameter, a very beautiful species.
Loudonia aurea, flowers yellow, *Phlebocarya lævis*.
Hæmodorum paniculatum, and *H. simplex*.
Tribonanthus brachypetala, *longipetala*, *uniflora*, and *variabilis*, uninteresting.
Conostylis aurea, flowers golden yellow.
 ——— *setosa*, flowers cream-coloured.
 ——— *æmula*, flowers yellow.
 ——— *dealbata*, *bracteata*, *aculeata*, *setigera*, *caricina*,
Laxmannia grandiflora, flowers , and *L. ramosa*.
Borya sphærocephala, heads of white flowers.
 ——— *scirpoidea*, flowers yellow and red.
Johnsonia hirta, , and *J. pubescens*.
Calcectasia cyanea, large blue flowers.

Stypandra grandiflora, flowers in panicles, blue.
Cæsia hirsuta, micrantha, versicolor, flowers pink, changing to blue.
Sowerbæa laxiflora, flowers pink.
Thysanotus asper, flowers purple, aneups, triandrous.

NEW PLANTS DESCRIBED IN DR. LINDLEY'S LAST NUMBER
 OF BOTANICAL REGISTER, AS ILLUSTRATED IN THE FLORA
 JAPONICA.

Rhododendron Metternichii, like *R. maxima*, but having purple flowers.
Prunus Mume, a yellow fruited plum.
Benthamia Japonica, smaller than *B. fragifera*.
Stachyurus præcox, tails of whitish flowers.
Abelia serrata, flowers white.
Forsythia suspensa, yellow.
Anemone cernua.
 ——— Japonica.
Pawlonia imperialis, flowers trumpet-shaped, in large panicles, purple, a very
 magnificent plant.
Diervilla hortensis, grandiflora, floribunda, and versicolor, shrubs, flowers trum-
 pet-shaped, rose-coloured or white.

We again recommend those persons who wish to form *correct* collections of
 these plants to procure Dr. Lindley's appendix.—CONDUCTOR.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A LIST OF EACH CLASS OF TULIPS.—Should the Gentleman, who for-
 warded the able article on the Tulip, written by a foreigner, and inserted in the
 last number of the "Floricultural Cabinet," be willing to give a truly foreign
 list of forty or fifty of the principal flowers, with prices, possessing the four
 qualities he describes, he would much oblige the amateurs in general, and par-
 ticularly

Your original Subscriber,

Hackney, Dec. 1839.

TENURE.

Let me crave your instructions how to manage the three following plants,
 which I never could succeed in bringing to perfection; viz. *Gladiolus cardinalis*,
Ixias and *Ipomopsis elegans*. How is this last to be kept over the winter; and
 particularly if it throws up flower-shoots in the autumn? It often damps off
 with me, or dies at once without any cause that I can detect. Give me an early
 answer if you please.

Y. R. S.

ON ARNOTT'S STOVE, &c.—Has any one tried Arnott's Stove in a Conserva-
 tory, and with what success?

The new crown glass mentioned by Loudon is too recent a discovery for any
 to have tried it, I presume.

SURREYENSIS.

ON A LIST OF THE BEST DAHLIAS.—A new Dahlia grower would be much
 obliged to you or any of your correspondents that have seen the various exhi-
 bitions of Dahlias last season, if they will insert in the "Cabinet" for next
 month, or as early as possible, a select list of twenty-four or fifty of the best
 sorts they have seen and can recommend.

F. J.

ON DRYING AND PRESERVING FLOWERS.—I should feel extremely obliged to

any one of the numerous readers of the "Floricultural Cabinet," *not novices or pretenders*, if they would give me, in an early number, a few hints on the *best means* of drying and preserving wild and cultivated flowers. A paper on this subject would, I am sure, prove most acceptable to many of your subscribers—to none more so, than

A SUBSCRIBER FROM THE COMMENCEMENT.

ON ERECTION OF A STOVE AND GREENHOUSE.—As a constant reader of your periodical from its commencement, I trust you will pardon the liberty I am taking in requesting an opinion upon the following. I purpose to erect shortly a greenhouse and hothouse, the whole length to be 30 feet by 16, divided by a glass partition, making the greenhouse 18 by 16, and the hothouse 12 by 16; the height to the caves from the floor $8\frac{1}{2}$ feet, with a span roof rising 5 feet in the centre. It will be glazed east, south, and west; the north forming the back wall, and the usual appurtenances behind it. The form of the panes of glass I purpose to have is the same as I used in a greenhouse and found it answer well, viz., the circular mode, bringing the glass to a point at the middle of each pane; in that the steam, which condenses on the glass and which in a damp day will remain in the lap, verges to the point and then runs down the light. My object in forwarding this is to know the opinion of some of the readers of the Cabinet, who have had experience, as to the best method of heating them. I think the common flue best for a greenhouse. I wish to know what size is best, with what they should be covered, how swept, and whether better under or above the floor; and also the opinion of Chanter's Patent Smoke-burning Furnace, its expense, and where it is to be procured; also, whether it would be worth while incurring the additional expense (if any) for a greenhouse. For a hothouse, I fancy, hot water would be best; and I wish to know whose plan is best? Corbett's seems simple and economical, but rather dangerous, for one might slip a foot into it. What is thought of Thompson's Egg-shaped Boiler? and what would be its expense, and where could it be had? In fact, I should be glad to have the opinion on any thing respecting it.

Leicestershire.

H. T.

A LIST OF DAHLIAS.—I should feel obliged by your giving me a list of the names of three or four *dozen* of the most beautiful shaped Dahlias,—plants that have been out about three years, and that can now be obtained for about half a-crown or three shillings each; these, in my estimation, like old friends, are much preferable to new ones. Be kind enough to attach *the colour*, and the price they are *this season* to be sold at;—let me have such as always prove good cupped flowers.

A SUBSCRIBER FROM COMMENCEMENT.

ANSWER TO THE ABOVE.

Mont Blanc, *white*; Era, Dod's Mary, Jones's Frances, *blush*; Antiope, Lady Kinnaird, *lilac*; Topaz, *yellow*; Harrison's Gem, Sparry's Don John, *sulphur*; Dod's Duke of Wellington, *orange*; Diadem de Flora, Countess of Liverpool, *scarlet*; Springfield Rival, Sir H. Fletcher's Marquis of Lothian, Climax, Whales's Royal Standard, Hylas, *light crimson*; Horwood's Defiance, Conductor, Purple Perfection, Amato, *purple*; Stanford's Egyptian Prince, *plum*; Girling's Ruby, *light ruby*; Bowling Green Rival, *dark ruby*; Suffolk Hero, Essex Rival, Cambridge Hero, Victory, Springfield Rival Major, *dark crimson*; Duchess of Richmond, *deep pink*; Hope, Miss Johnstone, *rose*; Grand Turk, *maroon*; Unique, Clark's Julia, Ward's Mary, *yellow laced*; Beauty of West Riding, *light red*; Glory of Plymouth, Lady Dartmouth, Masterpiece, *white, laced with lilac, &c.*; Ne Plus Ultra, Rienzi, *shaded crimson*; Brown's Rosette, *shaded salmon*; Ringleader, Stuart Wortley, *shaded purple*; Granta, *shaded claret*; Dod's Grace Darling, *shaded salmon pink*.

[The above may be purchased for five pounds.—CONDUCTOR.]

REMARKS.

ON HORTICULTURAL GARDENS, &c.—As a Subscriber to the Cabinet from the commencement, I beg to express my approbation of your account of the

"London Horticultural Society's Gardens," &c. The list of half-hardy plants is peculiarly interesting and valuable, and I trust you will continue it, and give your readers a full account of every thing interesting, as such information is particularly useful to the inhabitants of a distant county.

A DEVONIAN.

[We shall use our utmost endeavours to do so, and have spent several months in visiting the principal nursery and garden establishments, during the past summer and autumn, and have taken many notices of what we judged most useful and interesting, which we shall give in each successive number.—CONDUCTOR.]

REFERENCE TO PLATE.

COMOSPERMA GRACILIS. This very interesting and pretty flowering plant is a native of South Australia, from whence it was introduced in 1834. In consequence of its rather delicate habit, and being so profuse a bloomer, it has hitherto been considered a slow grower, but several plants that we have seen have grown very freely. It is a very pretty greenhouse climber, well meriting a situation in every one, its interesting appearance, and very profuse bloom, giving it a pretty effect. In its culture it requires to have plenty of drainage, to have a compost of rich loam and sandy peat. The plant to be raised rather high in the centre of the pot, or it will be liable to damp off. It is easily increased by cuttings or seeds.

FUCHSIA STANDISHI. This very handsome hybrid production was raised from seed, obtained from *F. globosa*, which had been impregnated by *F. fulgens*. The foliage is about intermediate between the parents, and the plant of a stiff and erect habit. It grows to five or six feet during the single season, and branches so as to form a complete tree. The corolla, which in most other *Fuchsia* blooms is blue, in the present kind is a fine deep red, and, as will be seen, is much larger than any other, making it very conspicuous. It blooms as freely as *F. globosa*. If the plant be placed in a stove during autumn and winter, the outer portion of the flower (the calyx) blooms of a pale pink colour, but the centre (corolla) remains a deep red, which produces a beautiful contrast. This very handsome variety was raised by Mr. John Standish, Nurseryman, Bagshot, Surrey, who has also raised a number of other pretty seedlings, but Mr. Standish informs us that none of them have flowers as large as the one figured.

LASIANDRA PETIOLATA. This pretty *Melastoma*-like flowering plant is a native of Brazil. It is an erect growing plant, producing numerous showy flowers on each terminal panicle. It merits a place in every warm greenhouse or stove. The plant is a vigorous grower, and easily propagated by cuttings. When grown in a stove it blooms from May to July, and in a warm conservatory or greenhouse from July to September.

NEMOPHILA ATOMARIA. This very pretty hardy annual we have remarked upon in former numbers of the FLORICULTURAL CABINET, and have now given a figure of it, with a view to promote its more general culture. When the plant is in bloom, in contrast with *N. insignis*, *grandiflora*, &c. it produces a very pleasing effect, whether in patches trailing or trained, or in masses as a bed of it. We saw some large beds of each of the kinds in splendid bloom, during May, 1839, in the London Horticultural Society's garden, and the contrast of the fine blue of one bed with that of the pretty spotted white of the other was peculiarly pleasing. Plants from seeds sown in autumn, or early in winter, bloom from May to August, and when sown in March or April, from the end of June to October, or even later, as it endures a strong frost.

FLORICULTURAL CALENDAR FOR FEBRUARY.

GREENHOUSE.—This department should have good attendance during this month. 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 favourable, 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 Amaryllis, &c. Tender and small kinds of plants should frequently be examined, as to have surface of soil loosened, decayed leaves taken away; or if a portion of a branch be decaying, cut it off immediately, or the injury may extend to the entire plant and destroy it. When watering is required do it in the morning, and so as to get the house dry by evening, for when frost occurs, the damp state of the house and plants renders them very liable to injury. Either by mild air, or a gentle fire, the house should be dried.

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

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 at the end of the month be top dressed, taking off old soil an inch deep, and replacing it with new.

BULBS, as **HYACINTHS**, &c., grown in water-glasses, require to be placed in an airy and light situation when coming into bloom. (See Art. vol. vi. on the subject.) 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 at the end of the month, and be placed in a hot bed frame, also cuttings or slips be struck, as they take root freely now.

CARNATIONS, &c., layers of should be transplanted into large pots at the end of the month, or be planted in the open border, in order to bloom strong.

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

DAHLIAS.—Dahlia roots, where great increase is desired, should now be potted or 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.

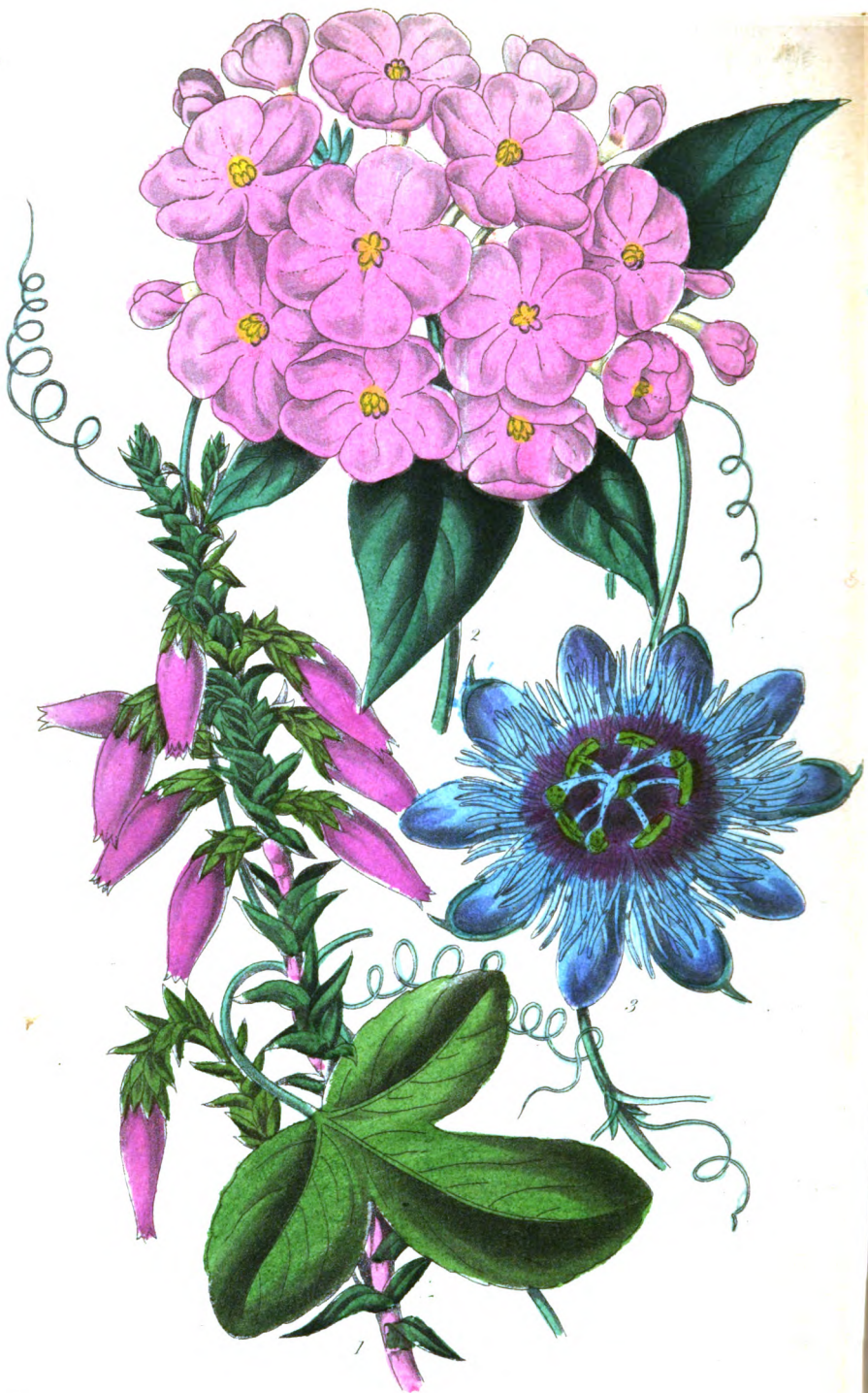
HYDRANGEAS.—Cuttings of the end of the last year's wood, that possess plump buds at their ends, should now be struck in moist heat; plant one cutting in a small pot (60's). When struck root, and the pot is full of roots, repot them into larger: such plants make singularly fine objects during summer.

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

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

TENDER ANNUALS.—Some of the kinds, as Cockscombs, Amaranthuses, &c., for adorning the greenhouse in summer, should be sown by the end of the month.

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



1 *Cosmetia rubra* 2 *Luculia gratissima* 3 *Passiflora ovifera*.

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THE
FLORICULTURAL CABINET,

MARCH 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON AN ARTICLE IN THE DECEMBER NUMBER, ON
THE TULIP, BY M. TRIPPET, COMMUNICATED BY MR. J.
FORBES.

BY MR. CAREY TYSO, FLORIST, & C. WALLINGFORD, BERKSHIRE.

THE December number of your Cabinet contains an article of considerable length on the culture of the Tulip, extracted from the observations of a continental grower of celebrity,—M. Trippet. It would appear, however, from the introductory sentence, that it was forwarded by Mr. Forbes for insertion in your Magazine, as a guide to growers in this country. Though it contains many useful observations, yet there are several statements which I think are in some measure calculated to mislead the English florist. I have, therefore, thought it would serve the interests of floriculture by directing the attention of your readers to a few of them; and at the same time suggest the propriety of receiving with caution, advice which, though perhaps suitable to the Continent, would not only be useless but injurious if credited here. I do this, not in a controversial spirit, nor with a view to hurt, in the slightest degree, the feelings of Mr. F., but simply to state the truth,—an object consonant, I trust, with the design of your widely extended Periodical.

First, it is stated, Tulips furnish two principal varieties—"Bizzards, and those on a white ground;" and then the last is subdivided into two classes: white ground streaked with red, &c. and white

ground streaked with violet, &c.; whereas Tulips are more properly divided into three classes: 1. *Roses*: white grounds, with rose or cherry colour flame, or feather; 2. *Byblomens*: white grounds, with violet or purple flame, or feather; 3. *Bizards*: yellow grounds, with chocolate, dark brown, and nearly black flame, or feather. They are denominated flamed *Roses*, *Byblomens*, *Bizards*, when the stripes of colour descend boldly from the top edges of the petals two-thirds of the way down the middle toward the bottom; and are called feathered *Roses*, *Byblomens*, *Bizards*, when the colouring is finely pencilled round the margin of the petals; the centre and base of each petal being pure ground colour, either of white or yellow.

Secondly; Mr. F. says, "Bizards were esteemed forty or fifty years back, but are looked on less favourably at present." This is incorrect, if applied to cultivators in this country. Who has ever grown or even seen a *Polyphemus*, or *Strong's King*, *Shakspeare*, *Marcellus*, *Bolivar*, and fifty others might be named, that would think less favourably of the class of *Bizards* than of the finest that can be selected from the other two classes? The fact is, that in every good bed of Tulips in England, those having yellow grounds constitute at least one-third of the number, and several amateurs of note grow two-fifths *bizards*, and think their beds look richer, and are improved by it. Varieties possessing every requisite qualification for exhibition are found as numerous, if not more abundant, in this class than in the other two.

Thirdly; the next statement I shall notice is—"The Tulips called Dutch are the only ones now admitted into a choice collection, and of these there are now about 700 good varieties." This may be correct if applied to the Continent, but the "choice collections" here, are formed by the possession of flowers that have been raised from seed and broken into colour, by the late Mr. Clarke of Croydon, and Messrs. Lawrence, Rutley, Goldham, Williams, Middlecott, James, Walker, and others. I have known some hundreds of Dutch Tulips with names sent over, and cultivated here for "good varieties" one season, and then discarded * by growers near the metropolis, and in

* The writer would not intimate here that all Dutch sorts are valueless, for *Louis XVI.*, *Ambassador*, *Old Catafalque*, *Comte de Vergennes*, &c. &c. are of Dutch origin; but the hundreds of sorts imported at "moderate prices" are dear at any price: they are not worth the carriage across the water.

the south of England. There are persons, chiefly in the north of England, who for the want of better retain them; and it is a striking and almost unaccountable circumstance, that such sorts as *Surpasse la Cantique*, *Goude Munt*, *Duc de Savoie*, *Duc de Bronte*, &c. should in the north be taking premier, and first prizes, though long since discarded by fanciers in the south. It exemplifies the fact that Tulip cultivators in one half of our island are a century in advance of their brother florists in the other.

Fourthly; in giving the criterion of a fine Tulip, Mr. F.'s fourth property or condition is, "a union of at least three colours clearly defined; it is necessary that at *least* three colours should appear, harmoniously combined, so that the eye may love to rest on the union." This feature is, alas! too conspicuous in many flowers, and its existence often proves a disqualification (in the south of England) to flowers exhibited in class especially. The third colour is usually the remainder of the original breeder colour, as it is termed, which in the estimation of many greatly depreciates its worth. For instance, *Rosa Blanca*, in its best state, is, a white ground, feathered with deep rose, without the slightest streak of the lighter pink breeder colour. *Ambassador*, when perfect, is a white ground, and nearly black feathering, the presence of the light violet colour being a defect. Perfect Tulips ought to be bicoloured; the flame, or feather, being one distinct uniform colour on a pure ground of white or yellow. There is one exception in favour of a few fine varieties between by-blomens and bizards, called tricolours, such as *Carlo Dolci*, *Rutley's Tricolour*, *Strong's Alfred*, *Dr. Franklin*, &c.; but with this exception our "eyes have no love to rest on the union."

Fifthly; in giving instructions for raising Tulips from seed, it is said, "They," that is, florists, "take care not to employ any seed but that which comes from Tulips having the bottom of the petals of a pure white:" from this it would appear that Tulips with yellow grounds are excluded; but the truth is, that yellow grounds are equally and deservedly in as much repute as white grounds from which to select seed bearers, the purity of colour or clean stainless bottom being equally essential in both classes.

Sixthly; the directions for arranging the roots for planting are also totally inapplicable for English culture. Mr. F. says, Drawers with compartments should be provided, and the roots placed in

proper order in the compartments, according to height and colour. "Its first series holds those whose stem is highest, and which are planted on the top of the bed; the other compartments hold others less high, until all are filled." In making the bed, "I find it best to give it a certain inclination, in order, first, to see the position of the flowers more easily; and next, to facilitate the flowing off of rain or other moisture." From this description I infer it is meant that a Tulip bed should be low in front and high at the back or farthest side from the spectator, and that the tallest varieties should be planted at the back or elevated side, and those of lower growth planted in the near and lowest side of the bed. Now it must be admitted by all, that the beauty of a Tulip is seen by viewing the *inside* of the corolla, and no arrangement seems worse adapted than this to facilitate a close inspection, as the tallest flowers would be placed at the greatest distance. Instead of forming the bed so that the superfluous rain may "flow off," it is better that it be never suffered to "fall on," which must be prevented by covering the beds with hoops and mats.

As the arrangement of Tulips has not been minutely detailed in any former article of your Magazine, I will (if you can allow me space in your pages) attempt a brief description.

The bed should be prepared to contain seven roots in each row across the bed; it should therefore be 3 feet 10 inches in width, and any convenient length; and be surrounded with an edging of board, on which the transverse rows should be numbered progressively. Measure off five inches from each edge, and divide the remaining space equally into six, which will allow 6 inches between each root, and 5 inches from the outer rows to the margin board. The drawers in which the bulbs are kept when out of ground should have seven compartments from back to front, and each row be numbered to correspond with the numbers on the edging of the bed, and also to agree with the entry in the Tulip book. Each of the seven varieties making a transverse row should also be numbered, and No. 1 should be at the left hand corner of the bed, on the opposite side to the spectator, and 2, 3, 4, 5, 6, 7, counted downwards towards the person viewing them. This remark would seem too obvious to need mentioning, if it were not known that florists, in all other matters apparently intelligent, have adopted the very reverse course. The sorts

should then be arranged,—Rose, byblomen, bizard across the bed, from the commencement to the end, according to the following plan :

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.
I. 1.	Rose.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.
II. 2.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.
III. 3.	Biz.	Ro.	By.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.
IV. 4.	Rose.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.
V. 3.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.
VI. 2.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.
VII. 1.	Rose.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.	Byb.	Biz.	Ro.

Or the colours may be arranged as follows:—Rose, byblomen, bizard, longitudinally, from one end of the bed to the other in the I., IV., and VII. rows ; bizard, rose, byblomen, in the II. and VI. rows ; and byblomen, bizard, rose, in the III. and V. rows, agreeably to the annexed scale of ten rows :

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.
I. 1.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.
II. 2.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.
III. 3.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.
IV. 4.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.
V. 3.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.
VI. 2.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.
VII. 1.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.

Both these plans will require an equal number of the three classes ; tricolours being planted as bizards or byblomen, according as they bear the nearest resemblance to either class. The superiority of planting according to these methods, over the promiscuous manner, needs only once to be seen by the connoisseur to be appreciated.

But the arrangement of the colours is not all that is necessary, the heights also must be attended to. The small figures in the above

scales represent the four gradations of height. The tallest varieties are placed in the middle or 4th row, and are called fourth row flowers, the shortest in the outside rows, and the others of intermediate heights should be placed in the 2d and 3d rows. In several of the Trade Catalogues the row in which each variety should be grown is given, which is a grèat assistance to amateurs ; but in cases where a root has not attained its full size, though a blooming root, it should be planted one row farther from the centre of the bed than marked in the Catalogues.

To keep a bed well regulated, some changes are necessary every year, which should of course be noted down, when the tulips are in bloom.

Having trespassed too much on your space, I will conclude with a hope that the foregoing observations will not be altogether useless to your readers.

ARTICLE II.

ON THE CULTURE OF PELARGONIUMS.

BY J. M., STOKES NEWINGTON, LONDON.

WHEN you informed the readers of the Cabinet about the splendid geraniums exhibited at the Horticultural Society, you promised them that you would give, in a future number, the mode of treatment they had received ; but that I have not seen yet, in which (I must say) I am disappointed, for I wished very much to know if there was any thing new in their treatment.*

A subscriber in the November number of the Cabinet asks you for the said information. But the number for the month of January has come out, and still the said information has not appeared. It is desirable it should be given, for many an amateur in the cultivation of that splendid tribe of plants has looked forward for the said information with delight, thinking it would be a guide for them, to bring them that was under their care as nigh the same perfection as they appeared at the Horticultural Society. But that desire they must give up for another season, A floriculturist in Devonshire has been so kind as to give us his treatment of that splendid tribe ; but I hope he will not think it too much of me in saying his mode of cultivation is

* The person who promised it us has not yet fulfilled his engagement.—CONDUCTOR.

not quite the same as that which is practised in the neighbourhood that I live in (which is about three miles from London).

The following detail contains the mode of treatment practised :—

The cuttings are put in, in the month of August, into a mixture of sand and leaf mould well decomposed. When struck, they are potted off into small sixties, in a mixture composed as follows :—One barrow load of maiden mould (*i.e.* the top spit well chopped with the spade) taken from a sheep pasture the year previous, one barrow load of leaf mould, one barrow load of bog soil, (well chopped with the spade,) one barrow load of well rotted frame dung, and about three parts of a barrow load of sharp sand, all well mixed together, but must not be sifted. When potted off, they must be kept in a close frame for a short time, and when started to grow, take off the tops, so that it will induce side shoots, and they will make good bushy plants. By the third or fourth week in September shift them into large sixties, in a compost, the same as when potted off into the small sixties, except not quite so much sand, say half a barrow load instead of three parts as before. Such as take the lead, and grow stronger than the others, are shifted into forty-eights about the third or fourth week in October, in a compost something similar as when potted into the large sixties, except using two barrow loads of maiden mould instead of one; as this will be the last shifting until the third or fourth week in February, for it is not advisable to have them in such rich compost during winter: for when it is so, it remains longer damp after watering, especially if it sets in damp and cloudy weather after watering, which causes the production of something similar to mildew upon the stalks of the leaves: when this occurs, it is destroyed by giving plenty of air, and applying a little gentle fire; if the weather does not allow top air to be given, as much front air is admitted as possible.

By the third or fourth week in February they are again shifted; some into forty-eights, and the largest into thirty-two, in a mixture composed as follows :—One barrow-load of maiden mould, the same sort as recommended before, well chopped with the spade; two barrow-loads of leaf-mould; two barrow-loads of well-rotted frame-dung; one barrow-load of bog-soil, well chopped with the spade; and half a barrow-load of sharp sand; all well mixed together, but by no means is sifted. In using, a little of the roughest is put at the bottom of the pot. By the first of April they are usually

growing freely, and some of them showing flower; and to keep them healthy and flourishing during the summer, a little liquid manure, say twice a week, is given.

I have now given one year's treatment; but to give the readers of the Cabinet the regular attention the show-flowers receive, I must carry them through another season. And who will object to that, when repaid with such a sight, (or nigh unto it,) and such plants, as were exhibited at the Horticultural Society meeting? By the 1st of August, these very plants, that have been so nursed, are cut back, turned out of the pots, and all the mould shook from the roots; some of them are potted into forty-eights, and some of the largest and best-rooted ones into thirty-twos, in a mixture the same as when potted into the forty-eights the previous October. When potted, they are put into a frame or pit, and kept close for a week or two, watering them over head with a pot and rose. By the third or fourth week in September, they are removed into the geranium-house, care being taken to give them as much air as possible, and not quite so much water. Whilst kept here, it is found necessary to keep turning them round on the stage, about once a fortnight, to have them in good form. By the third or fourth week in February, they are shifted into wide-mouthed twenty-fours, and some of the largest into wide-mouthed sixteens, in a mixture the same as they were shifted into last February. About the second or third week in March, they are tied to five, six, or more (according to the number of shoots) neat green stakes; and after being staked, and replaced upon the stage, they are *not turned after*, for if turned round after being staked they do not look so well. By the month of April, they require to have a little liquid manure, as recommended before. When the lateral shoots push forward, and there appears to be too many, they are thinned away, so as to leave each plant open and regular. The shoots are usually freely produced, and a second thinning is frequently found necessary. This attention is very requisite, as it keeps the plants in a neat form, and gives considerable vigour to them, the result being bold trusses of large blooms, such as have been seen in the exhibitions in and around London.

As the flowers begin to expand, they are shaded when the sun is out, with canvass, or thin gauze, fixed to a roller that is readily pulled up and down as required.

By following the foregoing practice, I have had some splendid geraniums, both in colour and size; and where practised elsewhere, the same success will be realized.

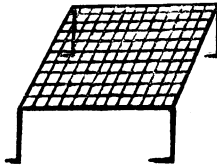
ARTICLE III.

ON FUMIGATING GREENHOUSES.

BY C. W. F.

HAVING derived much information from the perusal of your Floricultural Cabinet, which I have taken from its commencement, induces me to offer the following remarks, which, if worthy of publication, I shall feel obliged by your inserting in an early number.

The plans in general use for fumigating greenhouses have appeared to me to be accompanied with trouble and inconvenience, which has induced me to offer you a description of the plan I have adopted for many years, which is both simple, cheap, and successful. I have a small wire stand, or table, about the size of a large dinner-plate, with four legs; a slight sketch of which I here give.



On this I place the lighted tobacco, and put the stand, or table, on the ground, just inside the greenhouse-door; I close the latter, when I find there is always sufficient draught to keep the tobacco burning. By this means, the house is in a very short time full of smoke, without any trouble of blowing or annoyance of smoke to the individual. I think this method of fumigating can be adapted to all greenhouses, as there will always be found air enough to keep the tobacco burning.

ARTICLE IV.

HINTS ON PACKING PLANTS.

BY MR. CAREY TYSO, FLORIST, WALLINGFORD, BERKSHIRE.

IT is the practice of many florists, when they take up a plant, to lift it with all the earth which is held together by the roots, and then to press the soil close around them with their hands; and this they do to prevent the plant receiving injury by the removal. But a little reflection, and, what is more convincing, a little experience, shows that this operation is highly injurious. Suppose, as an example, some Pinks, taken from a bed composed of a stiff, fine-grained loam, were taken up and treated in this way, but in all other respects carefully packed, and sent a hundred miles by coach. The time intervening between the taking-up and re-planting may be forty-eight hours, and it will be found that the ball of loam has become hardened, and to a certain degree dried. The roots will consequently be *incased* in impenetrable soil—the fibres will be encircled in a hard crust or inclosure. They are planted in this state in a suitable compost, but the plants do not flourish; they remain *in statu quo* for a month, and then sicken, dwindle, and, perhaps, die. On taking them up, I have found the roots have never got without the inclosure, and consequently have never derived nutriment from the compost in which they were planted. In an experiment recently made with Carnation plants, selected of the same sort, similar size and state of health, planted in the same soil, in the same pots, I found, at the close of seven weeks, that the plants potted with the soil pressed round the roots turned pale and sickly at the tops, and drooped as if they had suffered for want of water; while those planted with loose roots looked in health. The difference was manifest in the appearance of the plants. I then took them up, and found the roots of those with pressed soil had in a few places just begun to protrude through the enclosure; but the ball remained hard, and detached from the soil in the pots: while the roots of the plants potted with loose earth had shot down by the sides of the pot to within an inch of the bottom, and were well established.

The injury that florist's flowers, such as Pinks, Carnations, Picotees, Polyanthuses, Pansies, &c., sustain from such treatment is certainly

not known, or the practice would be abandoned. To those who are so unfortunate as to receive plants in this state, I should say,—place the balls in a dish of water, and soak them till the soil can be cleared from the roots, and then carefully plant them. Persons who may fear to do this with all the plants they may thus receive from a distance, let them try the experiment with half of them, and they will soon perceive that even this method, harsh as it is, will be found better than planting them incased in hard, stiff soil, through which the fibrous roots of plants will require several months to struggle.

Plants should be packed with the earth *loosely* round the roots, in a little *moist* moss, and inclosed in brown paper. The foliage of plants should be surrounded with soft *dry* moss.

ARTICLE V.

ON RAISING TULIP SEED.

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

THE raising of Tulips from seed, having at last engaged the attention of florists in this neighbourhood, I presume that a few remarks as to the best means of obtaining it will prove acceptable to the readers of the Cabinet. The last two years have been very unfavourable for that purpose, and as the weather is in general more moist in the northern counties than the southern, it rarely happens that seed can be matured. In the year 1838 I found it impossible, by the usual method, to procure a pod of seed, as the pericarpium, from the moisture, damped and mildewed off. The year 1839 I took a different plan. As soon as the petals fell off I procured a piece of wood two inches broad and four inches long, and at one end I made a nich with a saw upwards of one inch deep, sufficient to hold firmly a square of glass six inches by four or five, and at the other end cut a hole about three quarters of an inch square. I then put a carnation stick through the square hole, and stuck it down near the bulb, and let the square of glass be within two inches of the top of the pericarpium, which prevented the wet from lodging in it. This is easily done by having holes bored in the stick every two inches, through which a nail or piece of wire can be inserted to prevent the glass from touching the seed-vessel. I then got a piece of metallic wire and

fastened the stem to the stick to prevent it from moving from the centre of the glass, and examined each from time to time. As the stem will generally grow two or more inches, when it is the case I raise the glass so as to be the prescribed height. By following out this plan I was enabled to ripen a considerable number of pods from very valuable and first-rate varieties, without losing one.*

The best time for sowing seed is the first week in February, in pots, which I find much better than sowing it the first week in January, as stated by me in a former article. The pots must be placed in a cold frame until the middle or latter end of April, and then plunged in soil and placed in a good situation in the open garden. By attending to this, an amateur will find that his hopes will not be blighted, and in due time he may be able to enjoy the satisfaction of having seedling breeders.

ARTICLE VI.

REMARKS ON THE PROPERTIES OF TULIPS.

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

IN answer to the query of "Tenurbs" respecting a list of Tulips combining the properties described in Mr. Forbes's article on "the Tulip," allow me to observe that the florists in the north of England and those of the southern differ much with respect to the properties. I cordially agree with the southern florists in rejecting all that have stained bottoms, as I consider nothing detracts so much from the beauties as a tinged bottom. But it unfortunately happens that a considerable number of them marks most beautifully, and it is on that account they maintain their place as stage flowers. In the south, what are considered extra fine Tulips, such as Everard, Strong's King and some others, would not, in the north, be saleable as stage flowers, although they possess every requisite except one, that is, *the marking*. It is to be regretted that no attempt has been made to assimilate the properties. The readers of the Cabinet will

* When the seed is ripe, the pod will assume a yellowish brown colour, and it will open at the sides; it must then be cut, and the end of the pod tied with a piece of thread to keep the seed from falling out: then hang it up in a dry place until the time of sowing; the seed keeps better in the pod than when out.

perhaps recollect that, in an article on the Tulip, I alluded particularly to the difference of opinion, with the view of something being done. The northern florists appreciate all the properties (as I before said), save one, admired in the south, and that is the marking; but instead of those irregular blotches, they require a feathered flower to be beautifully pencilled all round the petal, without the least break in the feathering, so as to show the ground colour; and any mark or blotch, except the feathering, is considered as a fault, and if it does not come to this standard, or nearly so, it is rejected as not worthy of being cultivated as a stage flower. Again, a flamed Tulip must also possess a good beam. By a beam, I do not mean to call a straight line up the centre of the petal a beam, such as the northern florists would acknowledge as one, but which is called so in the south. They want pencilling branching out from this beam to the feathering, the more the better, if sufficient of the ground colour is shown. This is what constitutes a flamed Tulip. It is impossible for one who is not acquainted with this difference to recommend a list to "Tenurbs." I purpose going to Haarlem in May to select a few new varieties for sale, in addition to what has been sent me this season on trial, as well as on my return to visit the principal places in the south of England, to make remarks, &c. upon Tulips that may be considered to possess the properties generally required by florists; till that period arrives, a correct list cannot well be made out. It is a mistaken idea, that the Dutch excel us in new varieties of this flower at this present time. I have been informed by one of the oldest establishments in Haarlem, that but little attention is paid to the raising of late Tulips, and that the best varieties were not raised by the Dutch, but were raised principally by the monks, &c. in the gardens of the monasteries of Ghent, Valenciennes, Dunkirk, and Lisle, many years ago, where existed the finest collections. It was by purchasing from these collections, that the Dutch florists gained so much celebrity. In the north of England there are a few varieties of considerable merit, but the price is here considered very high if 5*l.* is asked, whilst the London florists, perhaps for the same, would ask 50*l.* There is a rose, which I consider the finest ever raised in England, grown by two or three individuals, of which I believe there is only one broken, the feathering a most beautiful rosy scarlet, and the cup, &c. such as would please all. There is perhaps

six or eight breeders of it, and it sells readily at 21s. each. No doubt a many new varieties will every year make their appearance, and I doubt not but England will enjoy as great celebrity as ever Holland did. Should "Tenurbs" wish for any other information not conveyed in this, I shall feel pleasure in answering any inquiries he may make, so far as my humble abilities will permit.

I purpose publishing a catalogue in July, which will contain upwards of sixty new varieties of broken flowers possessed by no other florist in England, together with upwards of 200 select varieties of seedling breeders, and at the same time intend to notice, as far as possible, the various names under which some varieties are sold; also what kinds possess the properties required by all florists. If an article on the history of the Tulip will be of service to the readers of the Cabinet, I will forward it for the April number.

[We feel, we believe, with all the readers of the Cabinet who are admirers of this splendid flower, greatly obliged to Mr. Slater for the very useful articles which he furnished us, and which appeared in former numbers: they are the best practical observations upon the Tulip we ever saw; for them and the other interesting and valuable articles inserted in the present number, we feel under great obligations to him. The other communication we shall be glad to receive.—CONDUCTOR.]

PART II.

LIST OF NEW OR RARE PLANTS.

FROM PERIODICALS.

1. *BOUVARDIA SPLENDENS*, Splendid Bouvardia. (Bot. Mag. 3781.) Rubiaceæ. *Tetrandria Monogynia*. There is a great similarity between this and the well-known *B. triphylla* at first sight; but this is of freer growth, leaves narrower, and more scabrous; the flowers, too, are of a more splendid colour, being of a fine vermilion. We have seen it in bloom in the gardens of the London Horticultural Society. It requires a similar treatment to the *B. triphylla*, and, as is the case with all others of the genus, it is very easily increased by slips, or cuttings of the roots, inserted in sand or sandy peat, and struck in heat. The plant merits a place in every greenhouse and flower-garden. Plants being so readily raised, and so beautiful, renders it a valuable acquisition for planting in a bed in the flower-garden. The well-known *B. triphylla*, and more especially *B. Jacquiniiflora*, we have long grown in beds, and have been among the prettiest plants so cultivated.

2. *CATASETUM RUSSELLIANUM*, the Duke of Bedford's *Catasetum*. (Bot. Mag. 3777.) A native of Guatemala, and sent in 1838 to this country by Mr. Skinner. The flowers are produced on a raceme, and are very numerous, of a

greenish-white. Each flower is about two inches and a half across. The specific name was given in compliment to the late Duke of Bedford, who was a munificent patron and steady friend of botany and horticulture, an evidence of which may be seen in the unrivalled collections of many genera of plants now cultivated in the gardens and grounds at Woburn Abbey.

3. *EPIDENDRUM PARKINSONIANUM*, Mr. Parkinson's. (Bot. Mag. 3778.) Orchideæ, Gynandria Monandria. A native of Mexico, and sent from thence to this country by John Parkinson, Esq., late Consul General at Mexico. The flowers are produced on a long branching stem, each lateral one terminating with two or three large scentless flowers. Petals and sepals of a brownish-green. Lip and column of a pretty orange. Each flower is about four inches across.

4. *GELASINE AZUREA*, Azure-flowered. (Bot. Mag. 3779.) Iridacæ. Hexandria Monogynia. Sent to this country from Boston, in North America, by J. W. Boot, Esq., who received it from the Banda Oriental. A plant has bloomed in the select collection of the Hon. and Rev. W. Herbert, at Spofforth. The plant has been grown in the greenhouse, but it appears to be likely to thrive well in the open ground, if protected with a few leaves, or something of that light and protecting nature, through winter. The flower-stem rises to about two feet high, having a spathe of several flowers. Each flower is in form and size like a smallish crocus, and of a fine azure-blue colour. *Gelazine*, from *gelatinus*, a smiling dimple.

5. *IMPATIENS MACROCHILA*, Large-lipped Balsam. (Bot. Reg. Fig. 8, 1840.) Balsaminæ. Pentandria Monogynia. A native of the north of India, which was introduced into this country, in 1839, by the Directors of the East India Company. The plant is annual, and during the last autumn bloomed most profusely in the garden of the London Horticultural Society, and where it appeared to be as hardy as any other annual. The plant grows eight or ten feet high. The flowers are produced in terminating umbels, of a fine deep rose-colour, having the spur beautifully spotted with darker. Each flower is about two inches across. It is a very desirable species for ornamenting the flower border or greenhouse in summer.

6. *IMPATIENS TRICORNIS*, Three-horned Balsam. (Bot. Reg. Fig. 9, 1840.) Balsaminæ. Pentandria Monogynia. This new species is from India, and introduced with the before-described *I. macrochila*. The plant is annual, producing its blossoms on axillary racemes; they are yellow, prettily spotted with dark. The flowers have much the appearance of those of the Touch-me-not. It is stated by Dr. Wight that India swarms with species of this interesting genus; at least one hundred species are found. A moist climate and moderate temperature are most favourable to their growing vigorously.

7. *MAXILLARIA CUCULLATA*, Hooded Maxillaria. (Bot. Reg. Fig. 12, 1840.) Orchideæ. Gynandria Monandria. The flowers are small, and not peculiarly interesting. Each is about an inch across, of a red and yellow colour. The flower-stem rises about six inches high, and the terminating scape contains one flower. It is a native of Equinoctial America.

8. *MANDEVILLA SUEVOLENS*, Sweet-scented. (Bot. Reg. Fig. 7, 1840.) Apocynacæ. Pentandria Monogynia. This plant had been discovered by Mr. Tweedy, and sent to this country under the name of Chilian Jasmine. H. J. Mandeville, Esq., more recently sent seeds of it to the Hon. W. F. Strangways, who presented a portion to the London Horticultural Society. The plant is a climbing shrub, grows rapidly, and it appears likely to be an abundant bloomer. The flowers are of a beautiful white, of a bell-shaped form, having a fine parted mouth. Each flower is about two inches long and two inches across the mouth. They are deliciously fragrant, and being of a pure white, and so large, produce a pretty effect. The plant highly merits a place in every conservatory or greenhouse. When the plant has ceased blooming, it requires to be cut in similar to the vine.

9. *ONCIDIUM ORNITHORHYNCHUM*, Bird-billed. (Bot. Reg. Fig. 10, 1840.)

Orchidæ. *Gynandria Monandria*. (Synonym *O. roseum*.) This very beautiful species was originally discovered in the temperate parts of Mexico, at an elevation of 6000 feet above the sea. It has more recently been discovered by Mr. Skinner in Guatemala, and sent to the splendid collection of R. Bateman, Esq., with whom it has bloomed. The flowers are produced numerously on a branching panicle. Each flower is about three quarters of an inch across, of a pretty rosy-pink colour. When the panicles are allowed to grow naturally, they are pendulous, and have a very ornamental appearance. The fragrance of the flowers very much resembles that of new hay.

10. *PUYA CÆRULEA*, Blue Puya. (Bot. Reg. Fig. 11, 1840.) Bromeliacæ. *Hexandria Trigynia*. (Synonym *Pourretia cærulea*.) The plant is perennial, half-hardy, and in appearance is very like a narrow-leaved Pine-apple plant. The flower-stem rises to three or four feet high, terminating in a scape of imbricated flowers. They are at first of a pretty blue, and afterwards become spirally rolled up, and change to a deep rosy-red. It is found to thrive even in the poorest soil and driest places, and would be found ornamental for a rough bank.

IN NURSERIES.

CORREA LINDLEYANA, a hybrid raised by Mr. Milner, and deservedly named in compliment to Dr. Lindley. We saw the plant at Mr. Groom's. The flowers are of a pretty rose-colour.

CORREA CAVENDISHII, another hybrid raised by Mr. Milner, with rose-coloured flowers, at Mr. Groom's.

IPOMEA SPLENDENS. The foliage of this new species is nine inches long, and proportionally broad, giving it a noble appearance. The flowers are of a rosy-pink, having a deeper coloured centre. The plant is cultivated in the stove of Messrs. Rollisson's, Tooting.

IXORA INCARNATA, a beautiful flesh-coloured flower of this pretty genus, at the Tooting Nursery, grown in the stove.

STROBILANTHUS SCABRILLA, a stove-plant, which is very like a *Justicia coccinea*. In the stove at Tooting Nursery.

TRACHYMENE LILACINA. The old inhabitant of our flower-gardens, *T. cærulea*, is well-known for its deep blue and profusion of flowers; this new species is like it, excepting the flowers are of a pale lilac colour. It is a native of the Swan River colony, and was bloomed in the Clapton Nursery.

BORONIA ANEMONIFOLIA. The foliage of this new species is very pretty; the specific name conveys its form. It has not bloomed, that we could hear of; but the tribe being pretty greenhouse-plants, it will doubtless be worth possessing.

CHOROZEMA LANCIFOLIA. This new species has foliage of a lance-form, near three inches long, and gives the plant a very pretty appearance. All the kinds of *Chorozemas* that have bloomed in this country are interesting and pretty, and though this new species has not bloomed at the Clapton Nursery, no doubt it will be an acceptable plant. At present the price of a plant is five guineas.

ACACIA NOVÆ SPEC. We observed, at Mr. Low's, a new species of *Acacia*, having a flat stem, and the entire plant covered with hairs. It will be a pretty addition to the greenhouse.

PIMELIA INTERMEDIA, a new species, having corymbose heads of white flowers.

JACKSONIA (NOVÆ SPEC.) This new greenhouse plant is very like an *Ulex* (common Furze) in its appearance. It has pea-formed flowers, on long pendulous racemes, of a fine yellow colour. Mr. Low will soon have plants for sale.

EUPATORIUM ODORATISSIMUM. Mr. Low has raised this pretty species from seed received from Mexico. The plant appears to be a greenhouse shrub, producing panicles of pretty rosy-pink flowers.

WILSONIA MUARA, a new plant which we saw in the Tooting Nursery; it appears to be a greenhouse-plant. It was not in bloom, but we understood it is a pretty flowering plant, having yellow flowers, with a dark velvet centre.

PLATYLOBIUM MURRAYANUM, a new and beautiful flowering greenhouse plant, having large pea-formed flowers, the wings orange, with purple edges, and a keel. This we saw in the Tooting Nursery.

PRIMULA SINENSIS VAR. PLENA. A double white-flowered Chinese Primrose has been raised; we saw plants of it profusely in bloom at the Pine Apple Nursery, and another double-flowered variety with pale-pink flowers. The present price is one guinea per plant. They are valuable acquisitions to so charming a plant.

CONVOLVULUS BRYONÆFLORUS. We saw a pretty plant of it at the Pine Apple Nursery; it is grown in an open frame, so as to have slight protection in severe winters if required. It is a twining plant, producing light purple flowers, which are very ornamental. The foliage is pretty, having a mallow-like appearance. In a cool greenhouse, or trained against an open south aspect wall, the plant would be ornamental.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON A SUITABLE SOIL FOR THE ANEMONE.—I should be much obliged if you could inform me, through the medium of your "Floricultural Cabinet," what the Double Anemones thrive best in, whether a light sandy soil, loamy, or what composition is proper for them? If you could answer me in your next "Cabinet," I should be most happy, as it is getting very late for them.

A CONSTANT SUBSCRIBER TO YOUR CABINET IN KENT.

January 22, 1840.

ON PENTSTEMON COBÆA, AND P. MURRAYANUM.—Being a great admirer of that splendid plant, *Pentstemon Cobæa*, as well as *P. Murrayanum*, and having failed frequently in keeping them alive, as they appear to die off suddenly, at all times of the year, without any apparent cause, I should feel greatly obliged to any of your intelligent contributors if they would explain some successful mode of treatment with those beautiful flowering plants, which would no doubt be highly useful to many plant-growers as well as myself.

Cornwall, Feb. 1, 1840.

JACK FROST.

ON BULBOUS ROOTED IRISES.—If one of your correspondents who is acquainted with the English and Spanish Iris would give a list of each, with the description of the flower, and also a few remarks as to the time and depth they ought to be planted, I doubt not but that it will be very acceptable to many of your readers, as well as greatly oblige an

Ireland, Feb. 10, 1840.

IRISH SUBSCRIBER.

[Messrs. Lockhart having a most superb collection of them for sale, and which they bloomed admirably for the last five years, the Conductor applied to those gentlemen for a reply, which is subjoined as under.]—CONDUCTOR.

The treatment of the English and Spanish Iris is the most simple imaginable, and they are perfectly hardy. The English Iris merely requires good garden ground, and to be planted in the beginning of October, *not later*. The distance from bulb to bulb ought to be six inches, and the depth four inches, reckoning from the point of the bulb.

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If required to be taken up, do so a fortnight after they have done blooming, for they otherwise begin to vegetate again at the root, and if then removed, the roots would be weakened.

After taking them up, place them out of the sun, behind a hedge or fence, on the bare ground, until the planting time.

The Spanish Iris requires similar treatment, with the exception that they ought not to be planted before the beginning of November, as they come up so much sooner than the English Iris.

A CHOICE COLLECTION OF ENGLISH IRIS.

Agathon, pure white.
 Aglaurus, slate colour, red spots.
 Alida, pure white, pink mottle.
 Antomelon, dove colour, red spots.
 Atlas, porcelain, red spots.
 Aurora, light blue spotted.
 Brutus, white, rose spots.
 Chio, pale slate colour.
 Clito, white, red spots.
 Constantia, azure blue.
 Coronax, porcelain.
 Duc d'Anjou, grisdelin.
 Duchess of Kent, white, beautifully pencilled with light blue.
 Elphinstone, purple.
 Enchantress, mulberry.
 Fingal, bright light blue.
 Grand Protector, rose, red spots.
 Homerus, light blue spotted.
 Hyperides, white, red spots.
 Intendant, red maroon.
 La Beauté, white, red spots.
 La Comtesse, mulberry.
 Lord Derby, splendid rich blue.
 Manteau Grisdelin, white, pencilled with light blue.
 ———— Pourpre, red purple.
 Menander, dark rich mulberry.
 Minos, rich blue, indigo spots.
 Moritz, dark blue, indigo mottle.
 Passe blue Camelot.
 Pourpre Superbe.
 Seraphina, light mulberry.
 Sophocles, white, red spots.
 Terpsichore, porcelain, blue spots.
 Theron, lilac, red mottle.
 Ultra Marine.
 Ulysses, light blue.

A CHOICE COLLECTION OF SPANISH IRIS.

Azure, incomparable.
 Couronne, blue.
 Erin, green, purple, and bronze.
 Horatius, purple and yellow.
 Juliette, porcelain and yellow.
 Jaune Superb, bright yellow.
 Kroon van Indien, purple and brown.
 La dame du Lac, lilac, citron, and white.
 La blanchisseuse, white.
 La Candeur, citron and grey white.
 La délicatesse, blue and lilac.
 La Laitière, dark lilac, and yellow.
 La chérie, grey, blue and yellow.
 L'indienne, blue and bronze.
 Lord Nelson, blue.
 Ma favorite, dark yellow.
 Manteau ducal, blue and bronze.
 Musidora, daffodil yellow.
 Oliviere, olive.
 Pompe funèbre, very dark purple and bronze.
 Pizarro, brown and bronze.
 Phocion, bronze.
 Pantheon, citron.
 Vulcan, bronze and purple.

ANSWERS.

A SELECTED LIST OF TULIPS AS REQUESTED BY E.N.N. IN THE DECEMBER NUMBER, 1839. [The following named kinds we saw in bloom in June last, in the splendid collection of Mr. Groom, Walworth, and were offered to us at the prices annexed.—CONDUCTOR.]

CHERRY AND ROSE KINDS.

(Such have white grounds broken with different shades of cherry and rose colours.)

Andromache 3 6

	<i>s.</i>	<i>d.</i>
Catharine.....	2	6
Claudiana.....	7	6
Comte de Vergennes.....	7	6
Dominga.....	2	6
Duchess of Clarence.....	2	6

	s.	d.
Dulcinea.....	2	6
Fleur des Dames.....	2	6
Georgius Tertius.....	2	0
Grande Rose Imperiale.....	10	0
Hebe Superfine.....	2	6
Julia.....	7	6
Manteau Ducal.....	3	6
Maria Theresa.....	2	6
Monsieur Pitt.....	2	6
Perle Brilliant.....	2	6
Pretiosa Superba.....	2	6
Reine des Cerises.....	2	6
Rosa Blanca.....	7	6
Rose Cerise Blanche.....	10	6
Rose Monte.....	8	0
Rose Quarto Rectifida.....	5	0
Triomphe de Hollande.....	2	6
Triomphe Royal.....	2	6
Vesta.....	2	6

BIBLOCKMANS.

(White grounds broken with different shades of purple.)

	s.	d.
Alexander Magnus.....	5	0
Ambassadeur de Hollande.....	7	0
Belle Actrice.....	2	6
Cleopatra.....	2	6
De-demonia.....	2	6
Duchess of Tuscany.....	2	6
—— of Wellington.....	3	6
Eminent.....	2	6
Gloria Alborum.....	2	6
Gloom's White.....	5	0
Holmes's King.....	2	6
Hugobert.....	3	6
Impératrice de Maroc.....	10	0
La mère Brun Incomparable..	2	6
Laura.....	2	6
Moreau.....	2	6

	s.	d.
Ne plus Ultra.....	2	0
Prince Regent.....	2	6
Princess Charlotte Cenatoph..	5	0
Reine de Egypt.....	2	6
Roi de Bornea.....	3	6
Roi de Siam.....	5	0
Rubens.....	3	0
Violet Lelat.....	5	0
Walters.....	3	6
Washington.....	2	6

BIZARDS.

(Have various colours on yellow grounds.)

	s.	d.
Abercrombie.....	2	6
Castrum Doloris.....	5	0
Cato.....	2	6
Charbonnier Noir.....	7	6
Charlamonte.....	2	6
Charles Tenth.....	5	0
Commandant.....	2	6
Duke of Clarence.....	5	0
Emperor of Austria.....	10	6
—— of Russia.....	5	0
Franklin's Washington.....	2	6
Ophir.....	7	6
Octimus.....	10	6
Othello.....	2	6
Pizarro.....	2	6
Platoff.....	5	0
Polyphemus.....	21	0
Pont de Arcole.....	2	6
Porter's Palafox.....	2	6
Prince Leopold.....	2	6
Superbissima.....	2	6
Surpasse Catafalque.....	2	6
Vulcan.....	5	0
William Pitt (Holmes's).....	5	0

REMARKS.

ON MANAGEMENT OF BULBS IN WATER GLASSES. At this season of the year considerable attention is given to the culture of Bulbs in glasses. I have paid some regard to a practice so interesting, and give the following remarks on the treatment pursued, and of other means come under my notice.

Sometimes a large vessel, two or three feet in diameter and a foot or so deep, with a cover fitted to it which has holes in it, in concentric circles, on which a collection of Bulbs are placed, the largest kinds at the centre, as Polyanthus, Narcissus, then Hyacinths, and for the outer circle, Crocuses, &c. On some occasions a cone, or semi-globe, or semi-dome is constructed by tin troughs four or six inches deep, and about two inches wide, to which covers having holes for the Bulbs are fitted. This form admits the Bulbs being placed in horizontal rows, which rise one above another to the summit. After the roots are placed, the whole is generally covered neatly with some pretty kind of moss, so that the upper part of the Bulb is only seen. In this way I have grown and bloomed

them fine, which had a beautiful appearance. A small upright wire was attached, to which each flower stem was secured when it required support. The water is renewed in the troughs without disturbing the roots or Bulbs, a small tap being fixed to draw off the stale water, and a vessel with a long spout to pour the fresh in. A tin bottom in which the construction is placed secures the drip from doing injury to any furniture or window-board. In blooming them in glasses, two kinds of glasses are used, viz. bright or clear glass, and the other darkened: the latter is the best for the purpose, the shade excludes the light from the roots, and has a tendency to promote the greater vigour of the plant. The most successful mode of blooming the Hyacinth is, when the Bulb is placed on the glass; keep it in a dark place till the shoot has pushed an inch or more, when it is removed to the light. This is an essential practice to succeed well.

When the bulb is first put to the glass, the water need not be changed for a week or ten days, after which it ought to be changed every two or three days, putting in at each time a *small piece* of saltpetre. Every time the water is changed after the roots have pushed, they should be carefully cleaned by rinsing them in clear water, &c. in order to remove a clammy consistence which adheres to the roots, and, closing up the pores, causes the plant to become sickly.

I always take care to have the water to change with about the same temperature as that taken away. Whenever I perceive a sort of muddiness in the water, whether at the end of two days or more, I have it removed immediately; when rain or pond-water can be had, such is preferable to hard water.

ON NOTT'S AND ARNOTT'S STOVES, AND KYANIZED WOOD. There were inquiries, made some time since, in the "Floricultural Cabinet," if Nott's or Arnott's Stoves would heat a small greenhouse or hothouse, well; and having seen three or four instances where they have been tried, I can acquaint you they totally fail in the intended effect. The iron stove must not be in the house, and without it the pipes do not convey the heat sufficiently, so cheaply or so regularly as the common fire flue, or the hot water system, both of which are very far superior.

Wherever the air of the house can communicate with the fire internally, the air is injured for the healthy growth of the plants. Some extensive experiments were made in Kent some years ago, by introducing heated air through iron pipes into the stoves, in the place of the plan of heating the air which may be there.

The Kyanized wood is exceedingly injurious when used as tubs for growing plants or larger plants in; immediately the roots touch the sides of the tub the plant begins to droop, and soon after dies; so that the preservation of the plant is much to be considered before the preservation of the wood.

Dec. 1839.

J. R.

ON ANNUALS.—Annuals, as I have observed before, are flowers that rise, bloom, and die in the same year; and must therefore be raised from seed every spring.

The first class of annuals, being very delicate, and requiring great care, with the constant assistance of glass frames, I shall not even name, since they do not enter into the nature of my work.

I proceed to the second class, which are hardier than the above, though they should be raised in a warm border, and be covered with a hand-glass, if you wish them to flower in good time.

The ten weeks' Stocks will grow, if sown in a warm border, towards the end of March, and should be afterwards transplanted; but if brought up in a hot-bed, they will flower a month or six weeks earlier.

The China aster, Chrysanthemum, white and purple Sultan, African and French Marigolds, Persicarias, &c. will grow well in a warm border of natural earth, if sown in April; but they also flower a month earlier if they are assisted by a hot-bed or glass. These annuals must be all planted out, when tolerably strong, into the spots where they are destined to remain in the borders, taking care to allow each plant plenty of space, that they may not crowd each other. The China aster branches into many stems and flowers, therefore they may be planted singly, or not less than six inches apart. The July flowers, or more commonly called gilliflowers, become expansive as they increase. They should

not be crowded together ; three in a group are quite sufficient, and they should be six inches apart. The same may be said of the stock varieties.

I have ever found the hardy annuals grow finest by allowing them to become self-sown. They flower some weeks earlier, and invariably produce larger and brighter flowers.

When gathering my flower seeds in August and September, I allow one-half to remain sprinkled over the borders ; and the young plants never fail appearing healthy and strong above ground in March and April, the months appropriated to sowing the seed. Thus, my Lavateras, Larkspurs, &c. are in beautiful blow, while the second crop, or seeds sown in spring, are but showing their green heads above the surface. I weed away the superfluous self-sown plants to my taste ; but the birds take care that no one shall be encumbered with superfluity. I have by this means a first and second crop of the same annuals, but the crop of self-sown are far superior. They are up before the heats come on, to dry the earth, and dwindle the flower.

Dig the ground well with your trowel, and rake it very fine, before you put in the seeds in spring. Annuals love a light, friable soil. All the hardy kinds may be sown in March, each sort in little separate patches, as follows :—

Draw a little earth off the top to one side, then sprinkle in the seed, not too plentifully, and cover it again with the drawn-off earth. Half an inch is sufficient depth for small seed. The larger kind, such as sweet peas, lupins, &c. must be sown an inch in depth. When the plants have been up some time, thin them well. The more space you have, the finer the plants will rise.

The hardy annuals will not bear transplanting : they must be left to flourish where they are sown. The large kinds, such as the lavatera or mallow, should only be sown in groups of three plants together. The lupin tribe should not exceed five plants in a group. The *Convolvulus*, also, requires four or five plants only in a group. Water the patches in dry weather moderately, and be careful never to use pump water. If you have no soft water, a tub should be placed in the garden to receive rain water ; and if, as in towns, pump water must be chiefly used, let it remain a day or two in the tub, to soften in the air and sunshine.

The first week in April is the safest period for sowing annuals, as the cutting winds have ceased by that time, and frost is not so much to be apprehended. The soft rains, also, fall in warm showers, to give life and germ to seeds and plants, and they appear in a shorter space of time.

Those ladies who live in the vicinity of nursery gardens have a great advantage over the more remote flower-fanciers. They can be supplied, at a trifling expense, with all the tender annuals from hot-beds, either in pots, or drawn ready for immediate transplanting.

If you do not raise your own seed, be careful how you purchase your stock, and of whom you receive it. Many seedsmen sell the refuse of many years' stock to their youthful customers, and produce great disappointment. There is one way of ascertaining the goodness of the seed, which will not deceive. Previous to sowing, plunge your lupin, sunflower, &c. seeds into a tumbler of water : the good seed will sink, while the light and useless part remains floating on the surface.

If you grow your own seed, exchange it every two years with your neighbours. Seeds love change of soil ; they degenerate, if repeatedly grown and sown upon the same spot, particularly sweet-peas.

Sweet-peas should be put into the ground early in March, for they will bear the wind and weather. Make a circle round a pole, or some object to which they may cling as they rise ; and put the peas an inch deep, having soaked them in water well saturated with arsenic, to guard them from the depredation of birds and mice. Add an-outer circle of peas every month, so that a continual bloom may appear. The circle first sown will ripen and pod for seed in the centre, while the outer vines will continue flowering till late in the autumn. When you have gathered a sufficient number of ripe pods, cut away all the pods which may afterwards form with your knife. This strengthens the vines, and throws all their vigour into repeated blooms.

Be very careful to throw away the arsenic water upon your heap of compost, and do not put that powerful poison into any thing which may be used after-

wards in the house. Soak the peas in a flower-pot saucer which is never required for any other purpose, and keep it on a shelf in the tool-house, covered up. Three or four hours' soaking will be sufficient. If the wind and frosts be powerful and continued, shelter the peas through March, by covering them with straw or matting every evening.

I have got sweet-peas into very early blow by bringing them up in pots indoors, and transplanting them carefully in April, without disturbing the roots. In doing this, push your finger gently through the orifice at the bottom of the flower-pot, and raise its contents "bodily." Then place the ball of earth and plants into a hole trowelled out to receive it; cover it round gently, and, if the weather is dry, water it moderately.

Ten weeks' stock is a very pretty annual, and continues a long time in bloom. Mignonette is the very sweetest of all perfumes, and should be sown in September for early blowing, and again in March for a later crop. It is always more perfumy and healthy, if dug into the ground in autumn to sow itself. Venus' Looking-glass is a very pretty, delicate flower. Indeed, every annual is lovely; and the different varieties give a gay and rich appearance to the flower-garden during the three summer months.

The Clarkias are very pretty annuals, with a hundred other varieties lately introduced, and which are all specified in Mrs. Loudon's new work upon annuals. My plan is, to give a general idea of their treatment only, under the classification of hardy annuals, or those annuals which may be nurtured without a hot-bed.

Keep your annuals from looking wild and disorderly in a garden by allotting the smaller kinds their separate patches of ground; and trim the larger annuals from branching among other flowers. For instance, cut away the lowest branches of the China-aster, the African marigold, &c., and train the plant erect and neatly to a slight rod or stick; cut away the flowers as they drop, reserving one or two of the finest blooms only for seed; and let each plant look clean and neat in its own order. By cutting away flowers as they droop, the plant retains vigour enough to continue throwing out fresh flowers for a long period,—*(Extract from every Lady her own Flower Gardener.)*

ON ARNOTT'S STOVE.—Having had a good deal of experience of the working of Dr. Arnott's Stoves, in plant houses of various constructions, I am perfectly convinced that they are not at all adapted for such. And having seen, in the present month's Cabinet, an article by a florist, in which he expresses his entire confidence in them answering for such purposes, I am induced to pen the following, but I may here state (and I hope I will be excused for doing so) that I am afraid the florist has not had sufficient trial of his *small brick stove* in a large greenhouse, during a severe frost. I know by experience, as I have stated above, that in a sharp morning I have found my plants near the stove quite dry, and their leaves drooping, and those along the front and at the extremity of the house not sufficiently hot, although I had removed some of the plants from the stove the night previous, as that has always to be done whenever a fire is necessary. And still I had one part of my plants suffering from over heat, and the other from cold, in a house not thirty feet long. The stove takes up a great deal of room in whatever part of the house they are placed: if at the front, which is the proper place for either flue, pipe, or stove, the chimney or tube must either be suspended across the centre of the house, with a rise to the back wall, or taken up through the glass, either of which is very unsightly, and it does not answer to take the tube on a level from the stove, without a very high perpendicular chimney, to cause sufficient draught to make the fire burn. If under a greenhouse stage it would destroy plants to stand once in it, they require to be removed double the size of the top of the stove; and it is not very desirable, neither is it very safe, to be moving plants at night whenever it is requisite to have the stove lighted; and if the chimney has got damp (and it is very often necessary to have fire in winter to expel damp), the house is chocked full of smoke. These stoves have been so highly recommended, as they consume so little fuel, but they require double what the manufacturers generally say they do; and as economy in fuel is a great consideration in a gardening establishment, many individuals

have been induced to purchase them on that account, and I am sorry to say, that, in some cases, they have superseded hot water. If you consider these remarks worthy of a place in your widely-circulated Magazine, they may perhaps be the means of keeping some gardeners from having their plants both roasted and frosted in one house, at the same time.

Feb. 14, 1840.

A GARDENER.

[We should be glad of our Correspondent's address, in order to obtain a little more information upon some particulars really necessary, we think, to satisfy the readers of the Cabinet on this subject.—CONDUCTOR.]

REFERENCE TO PLATE.

LUCALIA GRATISSIMA. This very lovely plant is a native of Nepal, where it grows to a branching shrub from ten to fifteen feet high, and is literally loaded with its heads of beautiful flowers, which are in bloom nearly all the year. In this country it thrives freely in a good greenhouse or conservatory, and few plants equal it in beauty, when in bloom. The plant grows freely and flowers profusely. The blossoms are delightfully fragrant, perfuming for some distance around. The plant usually blooms from July to the end of October. In a compost of peat and loam, well drained, it thrives freely, and is readily increased by cuttings or layers. It deserves a situation in every greenhouse or conservatory.

PASSIFLORA ONYCHINA. We have grown this very beautiful flowering species for some time, it being introduced into this country in 1827, but has not found its way as yet into many collections. It certainly deserves to be in all, *blooming profusely* when trained and grown in a pot, to a suitable trellis or framework, or planted out in the greenhouse or conservatory, where it will extend a long way. The plant is a rapid grower, and easily cultivated, delighting in a rich loamy soil.

COSMELIA RUBRA. A native of New Holland, having somewhat the habit of an Epacris. It flourishes freely in a greenhouse, and blooms profusely during summer, if not drawn up weakly. A compost of sandy-peat and loam suits it well. It is readily propagated by cuttings struck in sand.

FLORICULTURAL CALENDAR FOR MARCH.

ANEMONES—Should now be planted as early in the month as can be done.

AMARYLLISES, and other liliaceous bulbous plants which have been kept dormant, may now be re-potted, 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, but in cold places not until the end of the month; for if the seeds of many sorts begin 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, replacing 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 ten 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.

CAMELIAS.—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 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. Cuttings be taken off and struck in heat.

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

HYDRANGEAS.—Cuttings may now be taken off; cutting off the tops of any shoots that have very plump leading bulbs, 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, bloom one fine head each, 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 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 TREES—not yet pruned, if allowed to remain untouched till the 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.

TUBEROSES—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.



Cox's Yellow Defiance

THE BOSTON HERBARIUM

L. H. B. 1881



Harrison's Charles XII.

FLORICULTURAL CABINET. APRIL 1840.



Pumplin's Bloomstary.

FLORICULTURAL CABINET AND GARDEN.

L. Bay.

THE
FLORICULTURAL CABINET,

APRIL 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

THE TULIP.

(ITS HISTORY.)

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

OF all florists' flowers, the Tulip has attracted the most notice; and when we consider its numerous beauties, as well as the splendid varieties, we need not be surprised. It may justly be styled the "King of Flowers;" and although within these few years the Dahlia has caused the Tulip to be neglected, yet the spirit is not quite extinct, and notwithstanding there is only a spark left, it will ere long break out into a flame, and the revival will be hailed with pleasure and delight by all Flora's sincere admirers.

This flower is much admired in the eastern parts of the world, and has been considered, in floral language, the emblem of loveliness.

According to a celebrated writer, the Turks regard this flower with so much delight, that a feast of tulips is annually celebrated in the Grand Seignior's seraglio; the description of which, when related to us in all the flowery garb of their language, leaves even the delineation of the fairy scenes in the Arabian Nights tales in the shade.

Vases of the finest chrystal, filled with the choicest Tulips produced in that part of the world, are scattered over the scene, like the

stars which look down upon them for number; galleries, amphitheatres, and pagodas, are erected, and covered with lights, that form garlands of emeralds, sapphires, rubies, and diamonds, entwined with lights that present to the imagination the sparkling of every jewel which nature has produced or art polished: showers of rose-water refresh the air, and the very tapers shed the most exquisite odours; the banks are covered with carpets, whose colours are as vivid as the clouds which surround the setting sun; pyramids of cooling fruit meet the eye at every turn, while innumerable birds of song, whose golden cages are suspended by strings of pearls, seem to mistake the scene for the arrival of Phœbus, and being awoke by the delights of the feast, mix their warbling with the melodious sound of instruments which seem touched by invisible musicians. In the centre of the seraglio, a splendid pavilion shades the Sultan, who carelessly reposes on the skins of the most costly and curious animals, with all the nobles of his court in their richest robes and shawls, seated at his feet to behold the winding dances of the lovely women of his court, in all the luxurious display of their light and sparkling attire, who sometimes encircle, and at others glide around the vases of Tulips, whose beauty they celebrate in song and action. During these festivals, Cupid often urges his votaries to dare the bowstring of the Sultan, by making a sighing Selim present a Tulip to a languishing Fatima.

The Tulip was sent, in the year 1554, by Auger Gislen Busbec, from Constantinople to Vienna, with the remark that the Turks charged a high price for them. Conrad Gesner says, that he saw the Tulip plant in the year 1559, in the garden of John Henry Hawart, at Augsburg. The Tulip was first introduced into England in the reign of Elizabeth.

It is stated in Martin's edition of Miller, that a merchant of Antwerp had a cargo of Tulip-roots as early as 1562, and taking them for a sort of onion, ordered some to be roasted under the embers, and ate them with oil and vinegar, like common onions; the remainder he set in the kitchen garden, amongst the cabbages, where most of them perished, except a few that George Rye, a merchant of Mechlin, took under his care, which produced a variety of beautiful flowers.

It is also related, that a sailor, having taken some goods to

Dutch merchant, had a herring given him for his breakfast; but seeing what he supposed to be a kind of small onion lying on the counter, the tar carelessly took up a handful, which he immediately ate with his dried fish. These proved to have been Tulips of so much value, that it was estimated a magnificent breakfast might have been given to the heads of the Dutch government for less expense than the cost of the condiment which the sailor took with his salt herring.

It was towards the middle of the seventeenth century that the rage for flowers, and particularly for Tulips, was carried to a very great excess in Holland and in France; so much so, that it brought ruin and bankruptcy upon many families. The *Tulipomania*, as it was justly termed, was entered into by these nations with as much avidity, for a time, as the Mississippi and South Sea schemes were in our own country. It would almost be impossible for us to credit the extraordinary accounts handed down respecting the high prices given for Tulips by the Dutch florists of that age, were we not acquainted with their gambling speculations in this bulb, which carried them to a much greater excess than their real fondness for flowers. Bets to a ruinous amount were often made respecting the eventful superiority of promising seedling bulbs; and for the possession of breeders of high merit, from which a superior variety was likely to be produced, as large a sum was given as the fleetest race-horse ever sold for.

About the year 1636, the spirit of floral gambling was carried to such excess at Haarlem, that during three years it is said to have yielded to that city a sum not less than ten millions sterling; for the price of these bulbs rose higher than the most precious metal. For a single Tulip, with the name of *Semper Augustus*, 4,000 florins, a beautiful new carriage, two horses with harness, &c., were given; and another, of the same kind, was sold for 13,000 florins, upwards of £650. Twelve acres of land were given for a single root, and engagements to the amount of £5,000 were made for a superior tulip during the height of the mania; and when a bidder could not be found to offer a sum of money equal to the ideal value of a fine flower, it was frequently disposed of by way of lottery or raffle. It is also said, that a person who possessed a very fine Tulip, hearing that there was a second root of the same kind at

Haarlem, repaired thither; and, after purchasing it at an enormous price, placed it on a flagstone and pounded it to a mummy with his foot, exclaiming with exultation, "Now my Tulip is unique" In another instance, a person who possessed a yearly income of £2,800, was reduced to beggary in the short space of four months by purchasing flowers. The Dutch government were at length obliged to issue a proclamation to suppress this ruinous excess.

This mania never reached England, from the unsettled state of the country at that period. The mania *for Tulips* has long ceased among the Dutch, and is now with them a mere settled matter of trade. Examples even in our times are not wanting of the enormous prices given for bulbs by florists. In the year 1835, a meeting of florists was held at Ghent, and a Tulip was named by them "The Citadel of Antwerp," which was afterwards sold to an amateur florist of the name of Vanderninck, of Amsterdam, for £650.

Our English florists have also raised Tulips for which high prices have been obtained, and now rival the Dutch in this fascinating class of flowers. They have for some years paid much attention to raising them from seed, and it may not be uninteresting to state a few of the earliest and most celebrated English raisers. A Rev. Mr. Wood, of City Gardens, City-road, who died about the year 1805, left behind him a very fine collection of Tulips. They were sold, in the first instance, to Mr. William Gabel, and by him returned in a very disordered state, and sold to Mr. Drinkwater and Mr. Davis, who had gardens in the same vicinity. It is supposed that the Tulip called Strong's King, so celebrated in the south, was broken from one of his breeders. Mr. Pearson, of Chilwell, near Nottingham, also stood high for a short time; but other varieties were raised, that threw him in the back ground. Mr. Austin, of Clapton, raised breeders, but none of much note. Mr. Holmes raised some very fine varieties, one of which, Louis XVIII., was sold to John Goldham, Esq., of Pentonville, for £42; and the whole of the stock is in that gentleman's possession. Mr. Maddocks, of Walworth, raised the "Glory of Walworth," and "Imperatrix Florum," two varieties much admired in the north as first-rate stage flowers. Mr. Strong, of Brook Green, Hammersmith, is well known to have raised many choice varieties from his breeders; but Mr. Clarke, a name which ought to be cherished by every Tulip-fancier, ranks the highest as a

raiser of breeders. He was very particular in selecting roots to save seed from, and also in destroying all dirty bottoms, and bad cups; his breeders are much sought after at the present time. It was from his breeders that Miss Fanny Kemble, Polyphemus, (and, I believe, Rutley's Queen Adelaide,) and some others, were broken. Mr. Franklin, of the City-road, Mr. Bowler, of Albany-road, Camberwell, have added considerably to the stock of seedling breeders. Mr. Greig, of Hackney Wick, four years ago, seeded a bed of eighty rows of fine-named varieties; and his collection of bulbs, not arrived at a blooming state, amount to one hundred thousand. John Shelmerdine, Esq., of Altrincham, twelve years ago, sowed a pod of seed taken from Louis XVI., which has produced seventy varieties, all of which partake of the character of the parent root, and not a few of them surpass the parent as respects colour, &c.; and every year I see new beauties breaking into colour from them, which excel any Louis ever grown. The name of Sherwood will also go down to posterity as the raiser of those celebrated Roses, Lady Crewe, Duchess of Newcastle, or, as it ought to be called, Queen Boadicea. These celebrated Roses were raised by him above thirty years ago, from a pod of seed saved from Rose Vesta; and the first Lady Crewe that was broken was grown by Mr. Turner, of Derby. There are a many varieties of breeders sold as Lady Crewe, which cannot be distinguished in the breeder state, (which is the case with many others,) but there is only one which breaks fine. The last, though not least, is Lancashire. A florist named Buckley, residing near Ashton-under-Lyne, near Manchester, raised some celebrated breeders from Bienfait Incomparable, which at the present time sell at high prices. The Lancashire Hero was sold a many years ago for £13. 10s. to a London florist; but the name, I have no doubt, has been changed, as I have not seen it in any London catalogues, although Mr. Groom has five of Buckley's, under the name of Walker's Beauty, Glory, Flora, 46, and 71. Beauty and Lancashire Hero are considered the best. Arlette, a Rose, when it is plentiful, will rank higher, in my opinion, than any Tulip ever raised in Lancashire. The cup is fine, the ground colour a very good white, and the feathering a rich scarlet. Our English florists have obtained very high prices for Tulips. Mr. Davy, of King's-road, Chelsea, broke a Tulip named "La joie de Davy," for which he was

offered £157. 10s., and declined taking it. Polyphemus, broke by Mr. Lawrence, of Hampton, four roots of which sold for £50, after it had been broken three years, and at the same time well known there were other roots in the possession of Mr. Clarke and his friends. Fanny Kemble, also one of Clarke's, was sold to the late Mr. Davy for £100; and at his decease, the stock, which consisted of one blooming root and two offsets, was sold to John Goldham, Esq., for £72. 10s. I have no doubt but John Shelmerdine, Esq., has it broken also from one of Mr. Clarke's breeders. This is possible, as Mr. Clarke never kept the breeders separate until they broke. Louis XVI. appeared in the Dutch catalogues for the first time in 1792. The price was £25 per root; and Mr. Austin, not many years ago, offered Mr. Goldham £72. 10s. for one, which was declined. Everard, broke by John Goldham, Esq., a variety celebrated in the south, was sold, in 1838, to Mr. George Glenny, for £140: the stock at that time consisted of seven blooming bulbs.

It is worthy of remark that there is a great difference in the price of Tulips in the south compared with the north; and although the catalogues of the London growers contain bulbs at the *moderate* price of £50, and even £100, yet they grumble to give £3 to a country florist for what, if raised or broken by them, would be charged as high as before stated; whilst the highest price known to be offered in the north, excepting Lancashire Hero, was for a Lady Crewe, and that was only £5; and at the present time I should be glad to sell forty roots at 10s. each, and some even as low as 5s. each. The high prices in catalogues deter many from growing them, as it is a vulgar opinion that high-priced articles are the best. The Dutch, at the present time, rarely value a root above 50 guilders, or about £4. 7s. 6d. of our money. The London gentlemen would do well to follow a little more in their steps, or treat their country brethren with a little more liberality; if so, I do not doubt but Lancashire would soon excel London and its neighbourhood in Tulips, as it does in other florist flowers.

ARTICLE II.

THE POLYANTHUS.

FROM THE M.S. OF THE FLORIST'S COMPANION, BY MR. JOHN SLATER, FLORIST,
ALBION PLACE, LOWER BROUGHTON, NEAR MANCHESTER.

No flower can more justly lay claim to the title of being beautiful than the Polyanthus. Its varied tints, the richness of its colouring, the grace and elegance of its form, agreeable fragrance, easy propagation, hardy nature, and being one of Flora's earliest visitors, it is welcomed with no ordinary feelings of satisfaction by every one who possesses the least taste for flowers. To the industry and zealous attention of the northern florists we are much indebted for the rapid and progressive improvement it has made during the last few years.

It is supposed to owe its origin from both the Primrose and the Oxlip.

The Polyanthus is grown to the greatest perfection in an airy situation, yet sheltered from the rays of the sun, as its excessive heat has a tendency to impair its strength. In the spring, it is necessary to examine the plants and pots minutely early in the morning as well as in the evening, to destroy all slugs and snails which may be found upon them, as they are very great enemies to this plant. The Polyanthus has also another formidable enemy, although small; this is the acarus, or red spider. When the plants are infected with this destructive insect, the leaves become yellow and spotted. The best remedy is, to remove the infected plant immediately from your collection, and place it in a more distant situation, and soak it in a strong infusion of tobacco-water. A sprinkling of quick lime upon the plants has been found beneficial and effectual.

The young florist is recommended to select his plants in bloom.

The Polyanthus grows best in a light sandy soil, and some florists add peat when a yellow sandy soil cannot be got. The following compost will grow them well:—

1	peck	light yellow loam,	
1	,,	sand,	
1½	,,	cow dung,	} to be at least two years old,
1½	,,	horse ditto,	
1½	,,	leaf mould.	

The properties of a fine Polyanthus are as follows :—

The stem ought to be strong, elastic, and erect, of such a height that the truss may be above the grass or leaves of the plant. The foot-stalks should be stiff, and of a proportionable length to the size and quantity of the pips, and not less than five or more in number, that the truss may be close and complete. The pipe, tube, or neck of the petal, should rise above the impalement, be short, and finish fluted in the eye; the antheræ should cover the neck of the tube: this is what the florists call a *thrum eye*. When the style perforates and shows its stigma above the antheræ, this is called a *pin eye*, from its resembling a pin-head; such a flower is rejected by all modern florists, let its other properties be what they may.

The tube should be round, of a bright yellow colour, well filled with anthers, bold and distinct. The eye should be round, of a bright clear yellow, and distinct from the ground or body colour.

The ground or body colour should be a dark rich crimson, resembling velvet, quite free from speck or blemish of any kind. The pips should be large, and of rich and lively colours, and nearly all of one size, and lie *quite flat* and smooth, as free as possible from ridges or fluting, and as round as they well can be to preserve their peculiarly beautiful figure, which is circular, excepting those small indentions between each division of the limb, which divides it into five or six heart-shaped segments.

The edging should resemble a bright gold lace, *exactly the same colour as the eye*, and go perfectly round each petal, also down the centre of each division of the limb to the eye, and the lacing or edging to be all of one breadth.

The best period for potting plants is after blooming, which will be in June, when especial care should be taken to make a good drainage. The plants must be dressed, and all offsets, or heads, which have roots, should be detached. After potting, water well, that the soil may be the better settled to the roots; and place them in a shady yet airy situation, and water them only when it is actually necessary, else there is a probability of their perishing by the rot. They will require protection during the winter months. A frame is the best, taking care to let them have the benefit of all fine weather. In March, you may let them have the benefit of all gentle showers of rain that may fall. Top dress them with a strong compost. The

compost generally used is cow-dung and horse-dung, very old, and a very small quantity of coarse sand. If you intend to exhibit, you must thin out all superfluous buds; those in the centre are the best to be taken away.

New varieties are raised from seed; and if you wish to be successful, take seed only from those varieties which possess good properties. When the seed-vessels begin to open, the seed is nearly ripe, and every day you must gather such heads as are brown, or else you will in all probability lose the best of your seed. The seed should be spread upon paper, and perfectly dried before it is laid by, and kept in that state until the last week in January or first week in February, when it must be sown in small pots, and the seeds be covered with soil about the thickness of a shilling, then be covered close with a glass. The plants will make their appearance in about six weeks. When they are large enough, transplant them into other pots, about one inch apart, and in June or July transplant into other pots. When they require watering, do it with a brush, by rubbing your hand over it, so that it may fall upon the soil like a heavy dew.

The seedling Polyanthuses bloom the following year.

The following is a list of the best varieties :—

Buck's George Fourth	Lord John Russell
Cox's Prince Regent	Nicholson's Bang Europe
Collier's Princess Royal	————— Stranger
Clegg's Lord Crewe	————— Gold Lace
Cranshaw's Invincible	Pearson's Alexander
Eckersley's Jolly Dragoon	Turner's Emperor
Fletcher's Defiance	————— Princess
Gibbon's Royal Sovereign	Stead's Telegraph
Hufton's Lord Rancliffe	

The whole collection may be bought for 52s.

ARTICLE III.

REMARKS ON THE DOUBLE YELLOW ROSE.

BY PROVINS.

I BELIEVE at least three attempts have been made by contributors to the Floricultural Cabinet to elicit information respecting the Rosa

Sulphurea, or Double Yellow Rose; and but little having been obtained, I conclude that but little is known of it. A friend assured me, that as he travelled through the dry and sandy parts of the south of France, the children brought handfuls of these beautiful flowers to the carriage-windows. These might or might not have grown by the side of a brook or water-course; but it will be observed, the soil was light and friable. Another friend, a scholar, and a scientific botanist, had witnessed the finest specimen he had ever seen within the shadow of a large tree, and it was his impression that it affected moisture. In addition to the above, I beg to impart what I have acquired from my own experience. Some years ago, I observed, in the garden of a neighbour, a plant of this Rose, as large as an ordinary currant-bush. The soil was strong and cold, and it had never been known to blow. I took a cutting from this bush, and budded a China Rose in a western aspect, which threw out healthy blossom buds the second year; but as the summer was dry and scorching, they withered away before they could expand. The year following, the season proving showery, it bloomed in full perfection. After this, the branch perished on which it was budded, which is nothing unusual with the China Rose. My inference from all this is, that if it be indigenous to the Levant, it will probably be found in moist and shady places. When growing on its own root, it may be expected to blossom on a warm and light soil, or in a mixture of sandy loam and bog earth, if duly and moderately watered in dry seasons, especially when in flower. On cold soils, it would be advisable to resort to budding, and such kinds of Rose should be selected for stocks as thrive and blossom freely when the experiment is to be made. The *Rosa Villosa* would be an eligible one, or the common white Rose, which throws up tall and straight shoots, and blossoms in clusters. I know not, indeed, why the common Dog Rose should not be as good as any, wherever it grows strong and healthy in the hedge-rows. Little attention need be paid to the soil, when those designed for stocks grow in it strongly and freely; neither do I apprehend that much is to be feared from blight or insects. I think it would succeed best trained to a wall exposed to an eastern aspect.

If, Mr. Editor, these observations are of any value, they are much at your service.

ARTICLE IV.

OBSERVATIONS ON THE PRINCIPLE OF DR. ARNOTT'S STOVE,
&c., AS SUITED FOR HEATING A GREENHOUSE.

BY MR. J. H. FARRAND, BAZAAR, CLARE, SUFFOLK.

HAVING derived many advantages from the perusal of thy Floricultural Cabinet, and long been a subscriber, I regret that many of thy correspondents omit subscribing their names, especially when communicating what they declare to be their own experience; such omissions admit of doubt as to whether the motive of such is simply to benefit the general interest of thy numerous subscribers. I allude to such communications as are in the number for the present month in reference to the use of Arnott's stove, at page 60 and 62.

Without further remarks upon them, I proceed to give my own experience for the last two years, simply as information.

In my greenhouse, thirty feet long and eleven feet high, in the middle of the brick floor I have a place dug out and bricked, ten feet long, two feet deep, and two wide, with steps unto it. At the end is placed a brick stove, upon the same principle as Dr. Arnott's, similar to that mentioned in page 29 in last month's number, (January,) with a cast iron top, sixteen inches by twelve, and raised on a level with the floor; at the back a pipe is carried up through the glass at the top. I *mostly* burn the cinders collected from the fires in my dwelling-house; but in severe frosty weather I consume Welch coal, in order to keep a good fire through the night, which I find quite sufficient; in the mornings, the two thermometers (one placed at each end of the house) are at 40 degrees and higher. Within eighteen inches of this stove are plants, various kinds, oranges ripe, &c.; and in the same house I keep birds,—a beautiful lowry, a paroquet, canaries, &c., fearing no injury from the severest frost, gases, or discomfiture of any kind; and all my plants are in a most healthy state.

If the parties complaining of Arnott's stoves meet with such disastrous consequences from them, it is because they do not manage them as they are capable of being managed, or they are ill constructed. I have had one placed for the last two years in my shop, which is fifty feet long, twenty-seven feet wide, and twelve feet high; it was made by G. Howard and Co., Old-street, London. Its

dimensions are twelve inches long, by twelve broad, and two feet high; it cost me £2. 11s., and is fully sufficient to keep up a regular warmth of fifty degrees day and night, with burning the same kind of fuel as in my greenhouse. I have it placed between three show cases, one on each side, not thirteen inches from it, and the other over it, not seventeen inches. The pipe at the back goes six feet on a straight line, through a boarded partition, not ten inches from the back of the stove, then entering another apartment, which it keeps at a due warmth of temperature, and is fixed into a chimney.

My shop-stove being so much approved, a gentleman, who has had frequent opportunities of witnessing its effects, had one, from the same makers, fixed up in his greenhouse the early part of this winter, and has found it answer to admiration.

If thy correspondent's remarks had applied to the use of the Chunk stoves in greenhouses, I should have been satisfied.

3rd month, 5th day, 1840.

[We feel very much obliged to our respected correspondent for the practical observations sent us. We insert them with confidence as to merit. We have by us several other communications relative to the same subject; but being signed anonymously, we could not insert them, as they especially deprecated the system, and, it appeared, without giving it a fair trial. Further remarks on the subject, from practical observation, we shall be obliged by from such of our readers as have had the opportunity of proving its practicability or otherwise. We have not had an opportunity of having one of Dr. Arnott's stoves in operation in a plant-house, but from what we have seen and felt of it in rooms, shops, &c., it appears to us that the heated air would be too dry to be suitable to vegetation; and to remedy which, some lateral flue or flues, constructed of metal, ought to be attached to the stove as at present formed, so as to convey the heat to each side to a desirable distance. Such lateral flues ought to be shallow and broad, and the upper part to be made so as to hold two or three inches deep of water; this would give such a degree of moisture to the house, as to render it beneficial to vegetation.—
CONDUCTOR.]

ARTICLE V.

AN ACCOUNT OF FROST, AS TAKEN FROM VERY MINUTE OBSERVATION IN A GENTLEMAN'S GARDEN IN LINCOLNSHIRE.

BY C. S., A SECOND GARDENER.

THE following particular account of the degrees of frost on the days stated were ascertained by a registering thermometer, being regularly visited morning and evening. Having the care of several stoves, greenhouses, &c., I have found that attention to the particulars of a former year has been useful to me in successive ones, in regulating the fires, so as to keep a due degree of heat. I ascertained, too, what tenderish kinds of plants out of doors could endure of cold without perishing, &c. What has been useful to me, I judge may be so to others who have a similar charge, especially amateur plant-growers, that I forward the account for insertion in the Cabinet.

		Degrees below Freezing Point.	Degrees below Freezing Point.			Degrees below Freezing Point.	Degrees below Freezing Point.
						Morn.	Even.
January	11, 1838.	18		November	10, 1838.	0	3
"	14 "	30		"	11 "	4	2
"	15 "	23		"	12 "	3	2
"	16 "	22		"	13 "	10	6
"	19 "	30		"	14 "	10	2
"	20*	38		"	24 "	0	F.
February	4 "	18		"	25 "	8	F.
"	12 "	14		"	26 "	2	10
"	13 "	12		"	27 "	6	0
"	19 "	10		December	6 "	4	0
"	20 "	12		"	7 "	0	F.
"	21 "	8		"	8 "	2	F.
April	1 "	8		"	9 "	F.	2
"	2 "	8		"	11 "	0	2
				"	15 "	F.	F.
		Morn.	Even.	"	16 "	14	10
October	10 "	2	5	"	17 "	F.	F.
"	13 "	5	3	"	18 "	F.	8
November	3 "	3	0	"	19 "	2	4
"	6 "	2	0				

N. B. The account of the frosts of 1838, ending April 2, I am not certain as to whether they were taken in the evening or morning, but generally in the evening.

* Perhaps some may doubt the truth of this low degree, but it is true.

	Degrees below Freezing Point.			Degrees below Freezing Point.	
	Morn.	Even.		Morn.	Even.
December 21, 1838.	F.	F.	February 4, 1839.	2	0
" 22 "	F.	0	" 5 "	F.	0
" 25 "	F.	3	" 16 "	F.	F.
" 26 "	8	F.	" 17 "	2	4
" 27 "	1	0	" 18 "	4	5
" 28 "	1	F.	" 19 "	12	4
January 5, 1839.	0	2	" 20 "	F.	F.
" 6 "	2	F.	" 21 "	2	F.
" 7 "	0	F.	" 26 "	4	0
" 8 "	3	3	" 27 "	F.	0
" 9 "	8	12	" 28 "	F.	0
" 10 "	6	0	March 5 "	0	F.
" 14 "	0	F.	" 6 "	3	9
" 15 "	F.	1	" 7 "	4	4
" 16 "	1	6	" 8 "	5	7
" 17 "	3	6	" 9 "	5	12
" 18 "	10	2	" 10 "	16	3
" 19 "	0	F.	" 11 "	1	0
" 21 "	0	F.	" 18 "	0	2
" 22 "	4	F.	April 2 "	0	F.
" 23 "	F.	2	" 3 "	F.	0
" 24 "	F.	0	" 5 "	F.	0
" 25 "	0	F.	" 6 "	1	6
" 26 "	1	F.	" 7 "	12	5
" 27 "	F.	F.	" 8 "	2	0
" 28 "	3	F.	" 9 "	2	1
" 29 "	3	F.	" 10 "	2	1
" 30 "	12	4	May 15 "	2	F.
" 31 "	6	6	" 16 "	3	0
February 1 "	10	F.	" 17 "	2	0
" 2 "	F.	F.	" 19 "	F.	F.
" 3 "	6	4	" 21 "	0	F.

ARTICLE VI.

ON THE BALSAM.

BY C. S., A SECOND GARDENER.

MUCH has been said, and much remains to be said, on the simple and well-known plant the Balsam. But there is a large field in nature as yet unexplored by practice; but as most gardeners generally adopt their own judgment in the cultivation of plants, it generally gives rise to some new experience or method of success.

The mode of treatment we pursue in flowering and growing this pretty flowering plant to perfection is simply as follows :—

To have a succession, we generally make two sowings, say the first the beginning of April. After the plants are up about three inches high, we pot them off singly into small pots, placing them on a shelf near the glass, in a pine stove. After they have filled their pots with roots, we shift them into half-pints, then into pints, next quarts, and so on, till finally we get them into deep half-pecks, always inserting them deeper in the pot each time, until the soil reaches the first joint, from which they readily emit strong roots. They are then replaced in the stove, as near the glass as they can conveniently be set.

Great regard is uniformly taken to give them plenty of drainage, and likewise when they are watered to give it copiously, so that it may have a free egress at the bottom. If given by small portions at a time, the plants will be found dry at the bottom, while the soil at the surface will be sodden with wet, and then the plants turn yellow and unhealthy. The soil they delight in with us is, three parts of rotten leaves to two parts of red loam.

After the plants show flower, we convey them out of the stoves to the greenhouse : there they spend their summer months. The result of this treatment last summer was,—the plants measured, from the floor, three feet to three feet six inches high, the stems and laterals being in proportion to that of the plants. The flowers were of the most splendid colours and size ; some semi, some quite double, so that we could not procure a single seed from some of the plants, though they continued to bloom from June till the latter end of October.

Coxcombs will do equally well after the same treatment, save I would recommend them to be flowered in quartern pots. We had blooms last summer that measured from fifteen to eighteen inches in length, and five to seven inches in diameter.

Perhaps these few remarks may meet the eye of some person who may be disposed for a little controversy ; to prevent which, I give no further recommendation than that they answer our most sanguine wishes.

ARTICLE VII.

ON BLOOMING TROPÆOLUM TUBEROSUM IN POTS.

BY MR. GEORGE FIELDER, GARDENER TO W. BRISCOE, ESQ., BOHEMIA, NEAR
HASTINGS, IN SUSSEX.

HAVING been a subscriber to the Floricultural Cabinet from its commencement, and having derived considerable benefit in reading the many interesting and useful articles therein, I feel it a debt I owe to contribute, in return, any information calculated to interest and benefit its readers.

I have observed several articles inserted in recent numbers on the treatment of the *Tropæolum Tuberosum*, but not one on blooming the plant when grown in a pot. Having flowered it in pots with very great success, I transmit for insertion in an early number the mode of treatment I have pursued.

In May, 1839, I bought a plant of Mr. Knight, North Trade Nursery, Battle; it was in a thirty-two sized pot. In June I repotted it into an eight sized pot, in a mixture of old mortar and moss. I trained it to a pillar in a cool greenhouse. In September it had reached the top of the pillar, which was fourteen feet high, and was most profusely and beautifully in bloom, having very near five hundred flowers upon it.

I had grown the plant in 1837 and 1838, in a good loamy soil, but could not get it to flower, and it appeared to contribute only to the production of stems and foliage.

I have grown several other kinds of shy flowering plants in old mortar and moss, and found them to bloom quite freely.

I will prepare a list of such plants as have succeeded so well in old mortar and moss, and with a very sincere desire to add my mite of information in your useful little Cabinet. I will forward the list at an early opportunity for insertion therein.

[We shall be much obliged by our respected correspondent forwarding the same at an early opportunity, so that our readers may avail themselves of growing the plant this season.—CONDUCTOR.]

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

BARNARDIA SCILLOIDES, Chinese Barnardia. (Bot. Mag. 3788.) Asphodelææ. Hexandria Monogynia. The plant was imported from China to this country by Mr. John Dampier Parks. The flower scape rises erect, about a foot high, terminating in a dense raceme of flowers, the lower ones being rather lax, of a pretty rosy-lilac colour. Each flower is about half an inch across. *Barnardia*, so named by Dr. Lindley, in compliment to Edward Barnard, Esq., vice-secretary of the London Horticultural Society.

CEREUS LEUCANTHES, White Torch, Thistle. (Bot. Reg. Fig. 13, 1840.) Cactaceæ. Icosandria Monogynia. Discovered by Dr. Gillies, in Chili. It has bloomed in the collection of the London Horticultural Society. The specimen there is nine inches high, and seven in diameter at the base, tapering to about three. It has seventeen ribs below, and twenty-two at the top. Each flower is about six inches long, inside of a pure white, outside of a dull olive green, with a tinge of pink at the points of the petals. The flower is about four inches across.

GESNERIA COCHLEARIS, Spoon-leaved. (Bot. Mag. 13787.) Gesneriaceæ. Didynamia Angiospermia. A native of the Organ Mountains, and roots of it were sent from thence to the Glasgow Botanic Garden, by Mr. Gardner, in 1837, where it bloomed last summer. The leaves are large, concave. The flower-stem rises to about half a yard high, terminating in a long raceme of flowers. Each flower, on a longish footstalk, is about an inch and a half long, of a pale but pretty red colour. To this admired tribe of plants this is a very pretty addition.

GONOLOBUS HISPIDUS, Hispid. (Bot. Mag. 3786.) Asclepiadææ. Pentandria Digynia. This very singular flowering plant is a native of dry situations, in South Brazil, growing among withered grass at Entre Rios. It was sent from thence by Mr. Tweedie, to the Glasnevin (Dublin) Botanic Garden, in 1837, where it bloomed last July. Mr. Moore, the curator, states, that "It is a half-herbaceous plant, and would probably stand the winter in the climate of Dublin, if placed at the bottom of a sheltered wall. It is scarcely a climber, but is weak and terete. The flowers are produced in umbels of from five to ten in each, of a dark shining brown-purple. Each blossom is about an inch across. *Gonolobus*, from *gona*, an angle, and *lobus*, a pod.)

ONCIDIUM STRAMINEUM, Straw-coloured. (Bot. Reg. Fig. 14, 1840.) Orchidaceæ. Gynandria Monandria. Sent from Vera Cruz to the London Horticultural Society's Garden. The flowers are produced in profusion, very closely, on stiff panicles; they are of a pretty straw colour, and have the fragrance of primroses. Each flower is about three quarters of an inch across. Dr. Lindley observes that it does not flourish if the temperature be as high as is required by the West Indian species; it must be kept cooler to bloom to perfection, and in that state it is handsome.

PHLOGACANTHUS CURVIFLORUS, Curved-flowered. (Bot. Reg. 3783.) Acanthaceæ. Diandria Monogynia. (Synonym *Justicia curviflora*.) It inhabits the mountains bordering on Sylhet, in the East Indies. Dr. Wallich sent it to the previously noble collection at Woburn Abbey, where it bloomed in the stove last November. The plant is shrubby, growing to about six feet high. Leaves are near a foot long, and proportionately broad. The flowers are produced densely, on terminal racemes, each being six or eight inches long, of a reddish-yellow colour. Each flower is about two and a half inches long. The fine racemes of flowers produce a showy appearance

RIGIDELLA FLAMMEA, Flame-coloured Stiff Stalk. (Bot. Reg. Fig. 16, 1840.) Iridaceæ. Monadelphia Triandria. A native of Mexico, where it was discovered by Mr. Hartweg, who sent it to the London Horticultural Society's Garden, where it has bloomed, and found to require the same treatment as a *Tigridea*. It grows from three to five feet high, terminating with an umbel of flowers, which proceed from a two-valved spathe, and open singly each successive day whilst they last. They are of a brilliant red-flame colour, having at the centre numerous short deep purple stripes, and are drooping, similar to the Turncap Lily. Each flower, if expanded, would be about three inches across. It is a very pretty flowering plant, well deserving a place in the flower-borders.

SATYRIUM PUSTULATUM, Pustular Satyrium. (Bot. Reg. Fig. 18, 1840.) Orchidaceæ. Gynandria Monandria. This very pretty flowering terrestrial orchideous plant is a native of the Cape of Good Hope. The flowers are produced in a spike, numerous, of a bright rosy-red colour, centre lighter, and spotted with black. Each flower is near an inch across.

SOLANUM UNCINELLUM, Hook-petalled. (Bot. Reg. Fig. 15, 1840.) Solanaceæ. Pentandria Monogynia. In 1837, this new species bloomed in the Horticultural Society's Garden, but was subsequently destroyed in winter. It appeared to be an annual. The plant was of a decumbent habit, herbaceous, and produced its pretty rosy-pink flowers in terminal panicles. Each flower is about an inch across. The plant appeared to be entirely different from any other species previously sent to this country.

SPIREA VACCINIFOLIA, Bilberry-leaved. (Bot. Reg. Fig. 17, 1840.) Rosaceæ. Icosandria Pentagynia. A native of Nepal, and appears to be nearly as hardy as the common Guelder Rose. It is a very neat shrubby plant, growing in a peat soil to three feet high. The flowers are produced numerous, in terminal panicles, which form corymbose heads; they are white. There are two varieties of it in the garden of the London Horticultural Society. The plants well merit a place in the shrub-border.

IN NURSERIES, &c.

CORREA TARGIDA. This is a very beautiful hybrid production; the flowers are of a large size, and of a fine dark crimson colour. In the middle of the tubular part of the flower it is swollen, and is in form what is termed bellying; the end mouth of the corolla is recurved, that is, turns back. The plant is of vigorous habit, having the finest foliage of any we have seen. It is in fine bloom at Mr. Knight's, Chelsea.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERY.

ON BONE-DUST MANURE.—An amateur gardener wishes for information respecting the *bone-dust manure*, and how it may best be applied to plants in pots, and what sort of plants are most benefited by it, and whether a top dressing will be of any use to plants already potted; any information conveyed in the Floricultural Cabinet will be gladly received.

Feb. 1, 1840.

REMARKS.

ON LAYING OUT A SMALL PLOT OF GROUND, WITH A LIST OF THE MOST ORNAMENTAL PLANTS TO CULTIVATE THEREIN FOR EACH MONTH.—There are many modes of adorning a small piece of ground, so as to contain gay flowers and plants, and appear double its real size. By covering every wall or palisade with monthly roses and creepers of every kind, no space is lost, and unsightly objects even contribute to the general effect of a "Plaisance." The larger flowers, such as hollyhocks, sunflowers, &c., look to the best advantage as a back ground, either planted in clumps, or arranged singly. Scarlet *lychnis*, *campanula*, or any second-sized flowers, may range themselves below, and so in graduated order, till the eye reposes upon a foreground of pansies, auriculas, polyanthuses, and innumerable humbler beauties. Thus all are seen in their order, and present a mass of superb colouring to the observer, none interfering with the other. The hollyhock does not shroud the lowly pansy from displaying its bright tints of yellow and purple; neither can the sturdy and gaudy sunflower hide the modest double violet or smartly clad anemone from observation. Each flower is by this mode of planting distinctly seen, and each contributes its beauty and its scent, by receiving the beams of the sun in equal proportions.

If the trunk of a tree stands tolerably free from deep overshadowing branches, twine the creeping rose, the late honeysuckle or the everlasting pea round its stem, that every inch of ground may become available. The tall naked stem of the young ash looks well festooned with roses and honeysuckles. Wherever creeping flowering plants can live, let them adorn every nook and corner, stem, wall, and post: they are elegant in appearance, and many of them, particularly *clematis*, are delicious in fragrant scent.

If flowers are planted in round or square plots, the same rule applies in arranging them. The tallest must be placed in the centre, but I recommend a lady to banish sunflowers and hollyhocks from her plots, and consign them to broad borders against a wall, or in clumps of three and three, as a screen against the north, or against any unsightly object. Their large roots draw so much nourishment from the ground, that the lesser plants suffer, and the soil becomes quickly exhausted. Like gluttons, they should feed alone, or their companions will languish in starvation, and become impoverished. The wren cannot feed with the vulture.

The south end or corner of a moderate flower garden should be fixed upon for the erection of a root house, which is not an expensive undertaking, and which forms a picturesque as well as a most useful appendage to a lady's parterre. Thinnings of plantations, which are every where procured at a very moderate charge, rudely shaped and nailed into any fancied form, may supply all that is needful to the little inclosure; and a thatch of straw, rushes, or heather, will prove a sure defence to the roof and back. There, a lady may display her taste by the beauty of the flowers which she may train through the rural framework. There, the moss-rose, the jessamine, the honeysuckle, the convolvulus, and many other bright and beautiful flowers, may escape and cluster around her, as she receives rest and shelter within their graceful lattice-work. There, also, may be deposited the implements of her vocation; and during the severe weather, its warm precincts will protect the finer kinds of carnations, pinks, auriculas, &c. which do not bear the heavy rains, or frost of lengthened duration, without injuring the plant.

Flowers are divided into three classes:—annuals, biennials, and perennials.

Annuals are those flowers which are raised from seeds alone, in the spring, and which die in the autumn. They are again divided into three classes;—the tender and more curious kinds; the less tender or hardier kinds; and the hardiest and common kinds.

Biennials are those flowers which are produced by seed, bloom the second year, and remain two years in perfection: after which they gradually dwindle and die away.

Some sorts, however, of the biennials afford a continuation of plants by offsets, slips, and cuttings of the tops, and by layers and pipings, so that, though

the parent flower dies, the species are perpetuated, particularly to continue curious double flowered kinds, as, for instance, double rockets, by root offsets, and cuttings of the young flower-stalks; double wallflowers by slips of the small top shoots; double sweet-williams by layers and pipings; and carnations by layers.

Perennials are those flowers which continue many years, and are propagated by root offsets, suckers, parting roots, &c.

It has been a debated point among florists whether plots or baskets should be devoted each to a particular variety of flower, or receive flowers of different kinds flowering at separate seasons. Thus, many ladies set apart one plot of ground for anemones only—another plot receives only pansies, and so on. There is much to be said on both sides the question.

If a plot of ground is devoted to one variety of flower only, you can give it the appropriate mould, and amuse your eye with its expanse of bright colouring. Nothing is more beautiful than a bed of pansies, or a bed of the bright and glowing scarlet verberna; nothing can exceed the gay and flaunty tints of a bed of tulips, or the rich hues of the lilac and the white petunia. A large space of garden allows its possessor to revel in separate beds of flower, whose beauty is increased two-fold by masses; and from that very space, the eye does not so easily discover the melancholy appearance of one or more plots exhibiting nothing but dark mould, and withered stems, arising from the earlier sorts being out of bloom.

But in less spacious gardens, this gloomy and mournful vacuum must be avoided. Every border and plot of ground should exhibit a gay succession of flowers in bloom; and that object can only be effected by a pretty equal distribution of flowers of early and late growth. As the May flowers droop, the June productions supply their place; and these, again, are followed in succession, till the Golden rod and Michaelmas daisy announce the decadence of the parterre for the year.

Yet every flower may be supplied with its favourite soil with a little patience and observation. A light soil suits all descriptions very well; and I never yet found disappointment in any description of earth which was thoroughly well dug, and dressed yearly from the mound of accumulated leaves and soap-suds. I particularly recommend a portion of sand mixed with the heap. All bulbs, carnations, pinks, auriculas, ranunculuses, &c. love a mixture of sand. I know no flowers of the hardy class which reject it. Mix sand well into your borders and plots, and you will not fail to have handsome flowers.

I subjoin a list of common flowers appertaining to each Month, in order to fill the borders with one or more roots of each variety. I do not include the annuals.

JANUARY.

In this Month the following flowers are in blow :—

Single Anemones	Primroses
Winter Cyclamens	Winter Hyacinth
Michaelmas Daisy	Narcissus of the Eas
Hepaticas	Christmas Rose

FEBRUARY.

Single Anemones	Single yellow Gilliflower
Forward Anemones	Single Liverwort
Persian Iris	Winter Aconite
Spring Crocus	Hepaticas

MARCH.

Bulbous Iris	Hyacinths of all sorts
Anemones of all sorts	Jonquils
Spring Cyclamens	Yellow Gilliflower
Liverwort of all sorts	Narcissus of several kinds
Daffodils	Forward Bears'-ears
Crowfoots	Forward Tulips
Spring Crocus	Single Primroses of divers colours

APRIL.

Daisies
 Yellow Gilliflowers
 Narcissus of all sorts
 Forward Bears'-ear
 Spring Cyclamens
 Crocus, otherwise called Saffron-
 flowers
 Anemones of all sorts
 Iris
 Pansies
 Daffodils

Double Liverworts
 Primroses
 Honeysuckles
 Tulips
 Hyacinths
 Single Jonquils
 Crown-Imperial
 Yellow Gilliflowers, double and single
 Pasque-Flowers
 March Violets

MAY.

Anemones
 Gilliflowers of all sorts
 Yellow Gilliflowers
 Columbines
 Asphodils
 Orange, or flame-coloured Lilies
 Cyanuses of all sorts
 Hyacinths
 Day Lilies
 Bastard Dittany
 Daisies
 Lily of the Valley
 Mountain Pinks

Double Jacea, a sort of Lychnis
 Pansies
 Peonies of all sorts
 Ranunculuses of all sorts
 Some Irises; as those which we call
 the Bulbous Iris, and the Chame-
 Iris
 Italian Spiderwort, a sort of Asphodil
 Poet's Pinks
 Backward Tulips
 Julians, otherwise called English
 Gilliflowers

JUNE.

Snap-dragons of all sorts
 Wild Tansies
 Pinks, otherwise called Lychnises
 Irises
 Roses
 Tuberoses
 Pansies
 Larkspur
 Great Daisies

Climbers
 Cyanuses of all sorts
 Foxgloves of all sorts
 Mountain Lilies
 Gilliflowers of all sorts
 Monks'-hoods
 Pinks of all sorts
 Candy-tufts
 Poppies

JULY.

Jessamine
 Spanish Broom
 Basils
 Bell-flowers
 Indian Jacea
 Great Daisies
 Monks'-hoods
 Pinks
 Scabiuses
 Nigellas
 Cyclamens
 Lobel's Catch-flies
 Lilies of all sorts
 Apples of Love
 Comfrey
 Poppies
 Snap-dragons
 Double Marigolds
 Amaranthuses
 Hellebore
 Ox-eyes

Pinks of the Poets
 Bee-flowers
 Sea-hollies
 Foxgloves
 Wild Poppies
 Everlastings
 Roses
 Dittanies
 Bindweeds
 Lilies of St. Bruno
 Tricolours
 Squills
 Motherworts
 Climbers
 Oculus Christi
 Camomile
 Sunflowers
 Belvederes
 Gilliflowers of all sorts
 Thorn-apple
 Valerian

AUGUST.

Oculus Christi, otherwise called Starwort	Foxgloves
Belvederes	Cyclamens
Climbers of all sorts	Passion-flowers
Apples of Love	Everlastings
Marvels of Peru	Tuberoses
Pansies	Monks'-hood
Ranunculuses	Indian Pinks of all the kinds
Double Marigolds	Bindweed
Candy-tufts	Passvelours
Autumn Cyclamens	Great Daisies
Jessamines	White Bell-flower
Sunflowers, vivacious and annual	Autumnal Meadow Saffron
Indian Narcissus	Gilliflowers

SEPTEMBER.

Tricolours	Amaryllis
Love-apples	Autumnal Narcissus
Marvel of Peru	White Bell-flowers
Monks'-hood	Indian Pinks
Narcissus of Portugal	Indian Roses
Snap-dragons	Amaranthus
Oculus Christi	Pansies
Basils	Passion-flower
Belvederes	Autumnal Crocus
Great Daisies	Thorn-apple
Double Marigolds	Carnations
Monthly Roses	Ranunculuses planted in May
Tuberoses	Colchicums

OCTOBER.

Tricolours	Pansies that were sown in August
Oculus Christi	Passion-flower
Snap-dragons	Passvelours
Colchicums	Double Marigolds
Autumn Crocus	Some Pinks
Autumnal Cyclamens	Amaryllis
Monks'-hood	Autumnal Narcissus
Indian Pinks	

NOVEMBER.

Snap-dragons	Double Violets
Double and Single Gilliflowers	Single Anemones of all sorts
Great Daisies	Winter Cyclamens
Pansies sown in August	Forward Hellebore
Monthly Roses	Golden Rod

(Extract from "Every Lady her own Flower Gardener.")

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, layers, cuttings, 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. Inarch 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, or 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 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 repotted 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. I. p. 48.

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

DAHLIAS.—Seedling plants should be potted off, one plant into a small or sixty-sized pot. Shoots and cuttings of 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. I. 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. I. p. 177 and 223; articles on the culture, &c., are there given.)

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

PANSIES.—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 off shoots and planting them in a good rich soil, shading them for a few days at first.

POLYANTHUSES.—(See Vol. I. p. 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.)

MIGNIONETTE.—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. p. 23 and 206.)

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

REFERENCE TO PLATES.

Cox's Yellow Defiance, Pamplin's Bloomsbury, and Harrison's Charles XII., Dablias.—Each being first-rate flowers coming out this season.

REVIEW.

Remarks on Thorough Draining and Deep Ploughing, by James Smith, Esq., of Deanston Works, near Stirling. (See advertising sheet of present number.) Extracted from the Third Report of Drummond's Agricultural Museum. Fifth edition, with notes. &c. &c.

The title of the work will at once convey to our readers that it is more an agricultural than floricultural publication; but the subject of draining wet ground is as well for the florist to know as the farmer, and those of our readers who peruse the work will find some very useful remarks, calculated to repay them for the sixpence cost and reading thereof. There are several copper-plate engravings and tables illustrative of the subject. The following testimonials of its utility in its application in agriculture we subjoin:—

“Smith's Subsoil Plough is a necessary accompaniment to draining; and, when that is done effectively, it seems calculated to render the most sterile and unproductive soil fertile and profitable.”—*Lefevre's Remarks on the Present State of Agriculture.*

“The Thorough or Deanston mode of Draining, of so great benefit, not for Scotland only, but for the whole kingdom, is as yet in its infancy. Already the fame and the utility of it is spreading all over the island; and we have not a doubt, in a short time there will not be found a spot where improvements are carried on that has not been ‘made anew’ by means of this simple yet powerful and efficient system of Draining.”—*Quarterly Journal of Agriculture June, 183*

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1. *Correa splendens*.
 2. *Correa lucida*

3. *Correa turquida*

THE
FLORICULTURAL CABINET,

MAY 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CARNATION.

BY MR. JOHN FREDERICK WOOD, NURSERYMAN, COPPICE, NEAR NOTTINGHAM.

Read before the Beeston and Chilwell Horticultural Societies.

WITHOUT wishing at all to depreciate other varieties of what are termed florists' flowers, and of which I sincerely wish there were more cultivators, and though I may have rather a prejudice in favour of the Tulip, yet it must be allowed that the subject of this evening's essay, "The Carnation," is a universal favourite, and from its more speedy increase by means of seeds, pipings, and layers, it may truly be designated everybody's flower; and, in fact, rich and poor seem to agree in this, whatever else they may differ in, that the Carnation is worthy of their greatest care, and draws from both unequivocal expressions and feelings of delight.

There have been so many treatises written on its cultivation, and rules laid down for propagation and management, that in attempting to describe a system, I fear I may run some danger of being suspected of plagiarism; or perhaps, after having endeavoured to enlighten my friends round about me, I may after all find that they even can tell me what I am unacquainted with; at all events, I do not mean to assume to myself any extraordinary ability, neither do I suppose that I shall be considered an oracle; but as our object is mutual instruction, perhaps the few observations brought forward this evening

may elucidate fresh facts, or lead to other ways or systems of management which shall be more congenial to the habits of this favourite and fragrant flower.

The generic name of the Carnation is *Dianthus*, derived from the two Greek words—*Dios*, divine, and *anthos*, a flower, alluding to the delightful scent, as well as to the beauty of its blossoms. A near relative is the common garden Pink, which has been so much improved of late years. The Sweet William, too, belongs to the same family; and many others, of which we need not at this time take any further notice.

I have just told you that the generic or family name of the Carnation is *Dianthus*; its specific name or title, by which it is distinguished from other members of its tribe, is *Caryophyllus flore-pleno*, or the Double-flowering Carnation.

By the scientific name it is usually called by botanists, but florists in general content themselves with the English name, and by that it is generally known.

This flower is divided into several classes, and of late years these have been increased, indicated by the colour of the flowers. There are now shown at different exhibitions in the country—Scarlet Bizarres; each petal being striped with two colours, scarlet and a dark maroon, on a white ground, varying in intensity in different sorts.

Crimson Bizarres; the stripes also consisting of two colours, but approaching in their tint more to a rose-colour and purple. In this class there is a subdivision, styled pink and purple, which are lighter and more lively in their shades.

There are yet three other classes, consisting of Flakes. Their colours are scarlet, rose or pink, and purple of various hues; some being many shades darker than others in each of the divisions.

After the flakes come the varieties called Picotees, or Carnations, with either spotted or striped margins to their petals. Of these there is a very great variety, and they may be classed under the heads of scarlet, red, rose-coloured, and purple. Formerly they were only shown in two classes—red and purple—without any reference to the extent of the colouring; but now each class is subdivided into heavy-edged, with the colour thickly laid on round the margin of the leaf, and are called in Lancashire striped Picotees; and feathered, or

light-edged, where the colour touches the leaf in an unbroken delicate line.

Having described the classes, it will perhaps be well to name a few in each division which, in this neighbourhood, are considered first-rate. Some time ago, application having been made to an extensive grower in the west of England for a list of the best twenty-four, he gave the following:—Scarlet Bizarres—Roi des Capuchins, Fletcher's Duke of Devonshire, Willmer's Conquering Hero, Strong's Duke of York. Crimson Bizarres—Cartwright's Rainbow, Young's Earl Grey, Wood's William IV., Wakefield's Paul Pry. Pink and purple Bizarres—Stone's Venus, Hooper's Rajah, Chambers's Hebe, Gould's Prince George. Rose Flakes—Brooks's Flora's Garland, Coquette de Paris, Jacques's Phœbus, Clark's Lady Farnham. Purple Flakes—Dr. Franklin, Brooks's Duke of Beaufort, Willmer's Defiance and Queen of Sheba. Scarlet Flakes—Hufston's Magnificent, Brown's Bishop of Gloucester, Addenbrook's Lydia, Fletcher's Beauty of Birmingham. Red Picotees—Martin's Princess Victoria, Ely's John Bull, Prince George, Wood's Ophelia, Willmer's Juno, Martin's Eminent, Willmer's Venus, Russell's Incomparable. Purple Picotees—Jeeves's Moonraker, Martin's Queen Adelaide, Hufston's Miss Willoughby, Willmer's Mary Anne, Willmer's Louisa, junior, Gibbons's William IV., and Willmer's Queen.

These, then, were considered the best of that part of the country; and I make no doubt, from the extensive knowledge of the gentleman who supplied the list, that it is correct. However, there are not many of the sorts grown hereabouts; at least, the majority have not as yet come under my observation.

Before mentioning the sorts which are most in favour here, some of which are seedlings of 1838 and 1839, I may just observe that I have read in some Floricultural publication, that if a man raised a few good seedlings during a long life, he might consider himself fortunate.

But whether the air or soil of Nottinghamshire, Derbyshire, Yorkshire, Lancashire and Leicestershire is peculiarly favourable, or whether fortune smiles more on the weavers and cottagers of these districts,—one thing is certain, that immense quantities are raised, and good and beautiful flowers have lately been introduced into the fancy; and it is no uncommon thing for a florist to raise from two to

ten good seedlings in a year, fit to take a place in any stand, and which will beat the old varieties into the bargain. The great desiderata in all flowers, whether Carnations or Picotees (of course excluding the yellow), is the unsullied purity of the body colour (if it may be so termed); this should be of a pure white, let the class be what it may: for should it be spotted or tinged, however imposing the grandeur of the other colours may be, it is allowed to be a very serious drawback indeed.

In Bizarres the colours should as much as possible balance, though I am well aware that there is often a great preponderance of one or the other; still, to see the stripes running parallel to each other, and distributed equally over the flower, is certainly a near approach to perfection, as far as colour goes.

In Flakes the same proportions are desirable, though some have too much colour, as I am inclined to think is the case sometimes with Addenbrook's Lydia, scarlet flake, whilst the reverse is the case with Hogg's Paddington Beauty, in the Rose class, at least if we have it correct in this neighbourhood.

As for Picotees, a clearness and decision of marking is requisite, and the fringed or notched petal is now considered a deformity. A smooth edge, or, as it is usually termed, a Rose leaf, with the colour bright and distinct, is required by all connoisseurs of this delicate and much admired class.

Having said this much of colour, I shall point out a few of our leading sorts. First, then, Scarlet Bizarres—Fletcher's Duke of Devonshire, Ely's Jolly Dragoon, Rainforth's Gameboy, Lee's Colonel, Hepworth's Leader, Hufton's Patriarch, and Kinfare's Hero. Crimson Bizarres—Sorn's Bloomsbury, Greasley's Lord Brougham, Ely's Lord Milton, Cartwright's Rainbow, Toone's Conductor, Ely's Major Goldsworthy, Hufton's Squires Ray and Munday, and Rev. H. Plumtree. Scarlet Flakes—Madam Mara, Toone's Ringleader, Creswell's Premier, Ely's Lord Morpeth, Fletcher's Beauty of Birmingham, and Wilson's William the Fourth. Rose Flakes—Ely's Lovely Ann, Greasley's Village Maid, Easom's Elizabeth, Malpas's Lady Grey, Clark's Lady Scot, and Hudson's Lady Flora. Purple Flakes—Brabbin's Squire Meynell, Turner's Princess, Milwood's Premier, Ely's Lady Hewley, Queen of Sheba, Hufton's Blue Ribbon, Pollard's First-rater, and Ely's Mango. Red Picotees, light-edged—

Ely's Mark Anthony and Criterion, Hardy's Competitor and Royal Briton, Milwood's Harlequin, and Sorn's Nimrod. Red Picotees, heavy-edged—Derby Willow, Parkinson's Matilda, Martin's Prince George, Hardy's Diadem and Waterloo, and Marris's Mary. Purple Picotees, light-edged—Hufton's Drusilla, Wakefield's Queen of Sheba, Ely's Mary Ann and Dr. Horner, Toone's Madame Malibran, and Pullen's Incomparable. Purple Picotees, heavy-edged—Boothman's Princess Victoria, and Wheatley's Mrs. Judson and Lucy. I had intended to have made a few remarks on the properties of the foregoing, but as it may extend my observations to too great a length, I will only just mention the names of a few sorts coming out, or which have been very lately raised, which fame reports well of; and, on second thought, a passing notice of the flowers named in my list, which have been originated in our immediate neighbourhood, may not be unacceptable. To the favourite class styled Crimson Bizarres, our worthy old member, Mr. Greasley, has most certainly made a good addition, with his fine flower, Lord Brougham, and, like its namesake, has a character of no ordinary description, taking the lead wherever shown.

Toone's Conductor is another lately raised, having very fine properties as respects form and colour; but, like Ely's Major Goldsworthy, is rather late. Sorn's Bloomsbury has a very high character; at present it is only in two hands, and will, I expect, be brought out next year in high condition. Creswell's Premier, and Toone's Ring-leader, scarlet flakes, are very fine, especially the latter.

The Rev. Samuel Wigg, of Leicester, has been successful in originating one, which, from its character given me by the rev. gentleman himself, will possibly dispute the palm with the two I have just mentioned. It is called after the ambitious favourite of Queen Elizabeth.

Greasley's Village Maid, Easom's Elizabeth, and Hudson's Lady Flora, are rose flakes which reflect the highest credit on their respective raisers; and Brabbin's Squire Meynell, Milwood's Premier, Hufton's Blue Ribbon, and Pollard's First-rater, are purple flakes, which, for purity of the white and distinctness of marking, are equal and very far superior to most in the class. Of Red Picotees there are many raised from Bowley's Lovely Anne, by Mr. Hardy; and Mr. Parkinson may boast of his Matilda, a fine heavy or striped flower.

Wheatley's Lucy and Mrs. Judson have been very lately raised, and are fine purple striped Picotees; the former perhaps rather short of petal, but a flower which I am well sure will win a great deal in Lancashire, where that defect is in a great measure overlooked. I cannot close this part of my essay without making a slight allusion to several successful raisers of seedlings, with whom I have been or am now acquainted.

And, first of all, the late Mr. John Pearson deserves the first place. He may be truly styled the Father of the Fancy in this neighbourhood, and I much fear "his like we shall ne'er see again." He was indeed a kind-hearted enthusiastic florist, and those who recollect the old gentleman will bear testimony to his worth. It was no matter to him how coarsely dressed his visitor might be. A lover or admirer of flowers was always sure of a ready passport to his favour and good offices; and though he has been "gathered to his fathers" for nearly twenty years, still his memory is venerated by all who knew him. He raised a good many flowers, which were much noticed in their day. Pearson's Lord Bagot and Marshal Blucher will pass muster yet, especially the former, which is a delicate grower, and now nearly lost to this part of the country, but which I should like to get again. Lady Loudon and Sir George Crewe, rose flakes, are now eclipsed. Madame Mara was the best flake he raised, and takes much beating yet. Chilwell Beauty, Red Picotee, was the reigning belle for years, but she, like many other beauties (of whom it almost amounts to treason to speak in any other than terms of praise), has become antiquated, and is now but little thought of. Derbyshire may boast of Mr. John Hufton, who has very lately died full of years, but a florist to the last. The flowers bearing his name attest his success: of these we may mention Patriarch, Nehemiah, Lady Clinton, Drusilla, Squires Ray and Mundy. The following have raised successful flowers in the different classes, and deserve honourable mention, for surely it is an honourable and praiseworthy pursuit which affords so great an amount of gratification and pleasure to our fellow-creatures, as florists' flowers undoubtedly do. I might, I dare say, increase the list, but Messrs. Lee, Creswell, Pickering, Toone, Hardy, Brown, Greasley, Cartwright, Wheatley and Hudson, occur to my mind at the moment.

I now purpose to lay before you my ideas, and offer a few obser-

vations on the culture of the Carnation. - You must, if you please, still bear in mind, that I am very far from asserting that my system is the best; yet I am sure that, if followed, healthy layers and fine flowers will be produced.

In looking over the various horticultural memoranda I make during the year, I find it will be best to begin at the period when the layers are taken off, as that is the time of all others that I would recommend those wishing to commence Carnation growing to lay in their stock.

We will then suppose that the layers are sufficiently rooted. Having removed the pegs which confined them in the ground, they must be carefully lifted up, for it sometimes happens that the weight of the soil attached to the root causes it suddenly to break off to the great disappointment of the grower; they must then be separated from the parent plant, and the stem cut back at a joint as near as possible to the root; this should be particularly observed, as the layer will very often strike again at the section. A few of the bottom leaves may be shortened, though I am no advocate for the unmerciful trimming which some people give their layers, as I imagine that the removal of leaves at this stage of their growth has a prejudicial effect on the root. Having removed the layers, they may be potted a pair together in pint pots. Some florists in their prescriptions (for florists give prescriptions as well as doctors) recommend manure to be mixed with the soil for potting at this season. But as doctors differ, I also must beg leave to give my veto against this practice. The mixture I winter mine in is one-half road-scrappings, one-fourth willow-dust, and one-fourth turfy loam, broken and mixed up with the spade, but on no account riddled. This is not too forcing, but will keep the layers in good health; it being a great point in their after management, not to have them of too gross a habit during winter, which the presence of manure in the soil would have a tendency to promote. The drainage of the pots must also be well attended to, and putting a small piece of moss over the potsherds will prevent the soil from mixing with them and clogging up the drainage. The pots containing the layers must be very slightly watered (but not over the foliage), and should then be placed in a cold frame for a few days, and the lights closed and shaded, so that they may strike fresh root, after which they must be

gradually exposed and inured to the open air, and when convenient removed to any suitably sheltered spot, taking care that a thick layer of coal ashes, or boards, are under the pots to prevent the ingress of worms.

As Carnations are by no means partial at this season to much wet, many florists erect a temporary covering with the lights belonging to their frames, and this answers the purpose very well. But the same gentleman whom I have before alluded to, and who supplied the list of the best twenty-four Carnations in the West of England, built a sort of greenhouse, open at the sides and front, under which he had a stage near the glass, on which the pots were placed; in rough windy weather, in sleet or snow, or when apprehensive of a severe frost, he made a good protection of mats; but on all other occasions they had all the weather; the result was, that his layers were healthy, the produce great, and flowers fine. I also recollect seeing lately an account of some layers in France, which had been potted in strong soil, and placed in a north aspect; they were seldom watered, and were protected from rain. They escaped in the severe winter of 1837 and 38, whilst most other collections, which had been more tenderly nursed, were destroyed. I may here observe, that from being placed in a north aspect, and having but a small quantity of moisture, the innumerable small cells or vessels contained in the stem of the layer were undoubtedly not overcharged with sap, as is the case with plants of a gross and robust habit, and would escape the effects of severe weather; whilst on the other hand, those whose sap-vessels are fully distended would experience ruinous effects from the frozen sap becoming too large for their vessels or cells, and a complete rupture takes place throughout the plant, causing its dissolution. As a familiar illustration, the same effects may be observed in our own gardens; for in severe frosts, when a flower-pot is filled with wet soil, and the mass becomes frozen through, the destruction of the pot is the consequence. From this it will be seen that it is imperatively necessary that they should be kept nearly dry through the winter months. My own plan, immediately after removing the layers from the closed frame before alluded to, was to place them under a slight awning, made of thin calico, stretched on a frame about twelve feet long, by three feet broad, and painted with oil and a little white lead; this is attached to a wall, so that I can let

it up or down at pleasure. They remain beneath this, alike sheltered from too much sun, which is injurious at their first removal, as well as the heavy dashing autumn rains, till the approach of frost gives a hint that some further protection is necessary.

For my own part, I think that many layers are annually lost by over kindness; being made more susceptible of cold by the nursing and stewing they get in frames; and where Mr. Bucknall's plan can be followed, for wintering them under a glass roof with open sides, I most certainly would recommend it.

But for those who either cannot or will not be at the expense of such an erection, the old system of protection must suffice. They must, therefore, choose a north aspect for their frames, and put a thick layer of coal-ashes on the bottom; on which rows of bricks are laid, sufficiently far apart that the pots may stand just touching each other: the frame must be tilted at bottom, so as to admit a free current of air, which it is desirable to obtain as long as possible. Brick pits or frames, which are decidedly preferable, should have square apertures, both before and behind; with a sliding panel or door, as in rainy weather, when the lights are down, a circulation could not be obtained, and on this I would lay great stress; for being kept too close engenders mildew, and too often ruins a whole stock. I have tried the plan, and found it answer, of plunging my pots in barley chaff: this keeps the roots from too great extremes, occasioned by the action of the air on the pots; it is also an excellent preventive against frost, and completely sets the inroads of snails and worms at defiance. The only objection to its use was, that sparrows would get into the frame, and in their search for corn scatter the awns over the tops of the pots, and they lodged between the leaves; but this I easily obviated by adopting Mr. Anderson's plan of stretching black thread just under the lights, which completely rid me of these troublesome visitants.

While in their winter quarters, attention must be paid to take off the lights on every opportunity, and draw them over again on the appearance of rain. In fact, it must be borne in mind that abundance of air, without unnecessary exposure to cutting winds, is essentially requisite for the health of the layers.

During the time they are in the frames, the soils or compost, in which they are to be flowered, should be well looked after. The

heaps should be often turned, and especially in frosty weather, when a vigilant look-out must be kept for the brandling or wire-worm.

The compost I would recommend is two barrowsful of good rotten turf, well-broken with the spade; two barrowsful of very rotten horse-manure from a melon or cucumber bed; one barrowful of either rotten leaves, sticks, or thatch, and one barrowful of wash-sand from a road-side.

All this should be well mixed and repeatedly turned, so that the incorporation may be complete. The turf ought, every bit of it, to go through the hand, and the lumps pulled to pieces to detect the hidden foe: and though only one brandling may be found, still you may consider yourself amply repaid for your trouble. The soil having been well turned, about a fortnight before the time of planting the layers out, which is generally about the latter end of March, sometimes sooner or later, according to the season, I put plenty of drainage in the pots and fill them to the rim with the compost, which will then subside before I plant; and in order that the soil may be perfectly clear, or to make assurance doubly sure, I insert pieces of carrot and slices of potatoes, to entrap any grubs or insects which may have before escaped. But a more certain way than this has lately been adopted by an old friend of mine. He puts about two pecks of soil at a time into his side oven, and, after subjecting it to a heat destructive to vitality, whether in the shape of worms or eggs, he removes it, and subjects another parcel to the same process, till he has sufficient for his use; and, in this part of the country, where side ovens constitute the principal feature in the cottager's fire-grate, and where, of course, there is a constant and abundant heat, a great deal can be effectually cleaned with no other expense than the trouble. All this may to some growers appear needless, and a trouble which the difference will not repay; but it is punctuality and care in small matters, attending to the minutiae of the thing, which very often enables the grower of fifty pairs to beat the careless cultivator of five hundred, and at the same time prevents the loss and mortification of seeing layer after layer of some favourite sort go in rapid succession. If this then can be prevented, I think it will be acknowledged that no trouble is too great that will accomplish it.

I now come to the planting of the layers out in the pots, supposing that the soil is cleared of destructive insects. They should be set a

pair in each, and the pots ought not to be less than half-pecks: A hornbeam or other hedge, having a south or south-east exposure, will be found most suitable for them. A wall ought to be as much as possible avoided; such a situation will be found extremely prejudicial, being so liable to drafts and eddies. After having been planted a short time, the sticks may be inserted in the pots, for if delayed, it is very probable that the roots may be injured.

[To be continued.]

ARTICLE II.

ON THE SOIL ADAPTED TO SUCCULENTS.

By this title may be understood an immense tribe of plants formerly considered tenants of the dry-stove, but now found to be more hardy than the Geranium. But it is proposed to restrict this inquiry to the *Cactæ*, as sufficiently comprehensive for the present purpose.

There are many persons now living who may remember the time when our greenhouses or stoves could exhibit few specimens of the *Cactæ*, except the common creeping *Cereus*, the Melon and Torch Thistles, and the Indian Fig.

Now, however, the case is widely different; for such has been the success of collectors, and so great is the facility with which the genera are propagated, and varied by cross impregnation, that it would be vain to attempt a catalogue.

Even in 1831, Loudon's *Hortus Britannicus* exhibited, at pages 194—196, under the order *Opuntiacæ*, no fewer than eleven species of true *Cacti*, twenty of *Mammiliaria*, forty-three of *Cereus*, five of *Epiphyllum*, thirty of true *Opuntia*, and four of *Periskia*! Yet what are these among so many of more recent introduction, to say nothing of the endless *varieties*!

Having then so much choice among a selection of surpassing beauty, it becomes an object of consequence to determine, pretty accurately, the soil that will generally succeed with all the varieties: but herein, as almost always happens, cultivators are at variance; yet, as we do not pretend to dictate, and ever desire to "let well alone," we shall be content to allude to what we have seen and heard.

Formerly it was the custom to make pretty free use of old mortar

scraped from bricks or walls, incorporated with loam ; then it was roundly asserted that good, soft, or *sandy loam*, mixed up with fragments of broken bricks, formed the most healthy bed for the roots. Other writers, and practical gardeners, got rid altogether of lime rubbish, and retained but little loam ; they advised, and many now use, the best or richest "peat," as heat mould is called, with rotten manure, and give water freely, in the growing season, with liquid manure.

Be the soil what it may, certain it is, that it should be pressed firmly around the roots with the hands, till the ball be solid and compact ; and little or no water ought to be given between October and April, during which period frost of two or three degrees will little affect the plants ; good drainage is also premised.

But we are sure that the herbage of Cacti (if so it may be called) is greatly affected by the soil. In some collections one observes the tint of almost every plant to be a dull, brownish green, and the texture flaccid ; in others, it is of a full deep verdure, with every appearance of vigorous health. Conversing on this subject with a very successful grower, one who had pre-eminently beautiful specimens of *Epiphyllum truncatum* grafted upon *Pereskia aculeata*, we were told that "loam spoiled all the Cacti, and turned the plants brown." Our experience for years tended to confirm this observation, but time has not been given to confirm the truth of another remark, which we thus communicate that our readers may experimentize for themselves. Our friend said, "take equal quantities of very old black manure, and of the strongest lime rubbish from old walls, the older the better ; mix them thoroughly, and add about one-sixth of unctuous loam. In this compost your plants will recover colour, be always green, and bloom abundantly." At all events our informant's plants make good his words ; and we shall attain our present object if this paper excite the notice of observant and candid horticulturists.

April, 1840.

ARTICLE III.

ON THE HARDINESS OF SOME LOBELIAS.

BY SCOTUS.

As a knowledge of the power of plants to resist cold may be useful to some of your readers, I beg to mention, that a gentleman sent me

the following Lobelias last spring, viz., *Lobelia propinqua*, *L. longifolia*, and *L. grandiflora*. They were put out in the open border when the season permitted, and grew well, and flowered during the summer, but on the approach of winter they were forgotten, and remained in the open ground until the 19th of January last; on that morning the thermometer stood at 23° of Fahrenheit, (at 8 o'clock,) and was probably a little lower during the night; they were then taken up, and laid in the vinery, where there was then no fire; and they are at this time in perfect health. The Lobelias stood in a south border of a light soil, and of course were not very luxuriant.

18th March, 1840.

ARTICLE IV.

TO BLOOM THE DOUBLE YELLOW AND AUSTRIAN ROSES.

BY OBSERVER.

THE Yellow Rose (*Rosa sulphurea*) does not in general flower well, as has been observed in some late numbers of the Cabinet; it requires an open eastern situation, so as that the young buds may receive the early and gradual continuance of the sun, thereby avoiding its too sudden effects, which proves so injurious when preceded by frost. It delights in a rich loamy soil on a dry substratum, and to be supplied with plenty of moisture, when in a growing state. Every autumn, or immediately after the bloom is over, one-half of the old wood should be cut down, within about four inches of the ground, and that which remains should be divested of all old and superfluous shoots, retaining, but shortening such as have flowered to a healthy bud and leaf; all unripe shoots are to continue untouched till matured, then to be shortened according to their strength. But this means a succession of thriving blooming shoots will be kept up: all lateral buds, except a few towards the extremity of such shoots, should be pinched off when discernible, in order to have them produce a massy head of flowers. It sometimes happens that this and the Yellow and Austrian Roses (*R. lutea*, and *R. bicolor*) flower freely, though injudiciously treated. Yet to depend on an annual supply of vigorous blooming plants, I would strongly recommend the above practice, or that of budding them on the common Chinese stock (*R. Sinensis*.) Should insects attack them

(as frequently they do), the best mode of expelling them is by a gentle application of lime-water, or a weak mixture of soap-suds and tobacco liquid, being cautious to have the whole syringed off with soft water early the following morning.

ARTICLE V.

ON DRYING SPECIMENS OF FLOWERS.

BY T. W., WALTON NURSERY, LIVERPOOL.

HAVING in the number of the Cabinet for February last seen a query by one of your numerous correspondents, concerning the best method of drying and preserving wild plants and flowers; and being rather surprised that so simple a question was not answered in the number for the present month, I have been induced (though a perfect stranger to public writing) to answer the question to the best of my abilities. I beg to observe, that most of the works on botany of the present day contain ample directions on the subject required. The most simple and the most efficacious method for general purposes is, drying them in books. Any person who can command a few heavy volumes may dry plants sufficient to stock an ordinary herbarium in a short time.

Let the specimens be gathered when perfectly dry, and placed in a tin box till brought home. Have some good blotting paper in readiness, get your books, and place the specimens between two pieces of blotting paper in a neat and regular manner, taking care that the petals and leaves are expanded in their proper position. Place them in the books, rather far apart, then lay the books one on another, and they will need no further trouble than looking over every three or four days, for the first three weeks. If any dampness is detected, the blotting paper must be immediately changed, and the specimen placed in a fresh part of the book. This method answers admirably well for plants in general. I am often agreeably surprised to find in most of my books specimens which I chanced to pick up on a walk, and which were laid by and forgotten, preserved in the most beautiful manner.

Having frequently experienced the difficulty of drying such plants as *Echinopsis*, *Dipsacus*, &c., owing to their globular heads, and that many of our most delicate plants were frequently pressed to a mass by the common method, I shall now describe that which I have practised with such specimens for several years. I get a quantity of

the finest and the purest sand, keep it in an oven, or some other very dry place. Having my specimens ready, I get some tumbler glasses, cups, or any other utensil, according to the size of the specimen. I place some of the sand in the bottom of the vessel, then take the specimen and place it in the vessel, in the manner it grew, holding it with one hand, and with the other gently fill up the vessel with sand, shaking it continually, that the sand may press the plant closely on every side. They are then kept in a warm, but not hot, oven for about a fortnight or three weeks, when they are usually perfectly dry. In this manner the most delicate plants, such as *Gentiana*, *Drosera*, *Saxifraga*, *Sedums*, &c., are preserved in the exact form in which they grew, with the corolla, calyx, stamens and pistils uninjured and entire. The success of this method depends entirely on the dry state of the sand, as the least damp spoils all. I was first induced to try this plan on wishing to preserve a plant of *Sarracenia* in its curious natural form, and I succeeded beyond my expectations.

This plan has been objected to in consequence of the room the specimens require after drying. The mode I practise is, to take a large sheet of pasteboard (white); divide it into compartments by transverse slips of the same, being neatly pasted on, so that when finished the whole resembles a tulip box: place it to stand on edge, and take my specimens, placing one or more, according to size, in each compartment; I then write the name on a small slip of card paper, pasted so as to stand upright, at the bottom of each division, and the whole is covered with glass in a neat manner; and I beg to assure the readers of the Cabinet, that the neatness and beauty of such a case of rare and curious plants amply repays the labour of their construction. Should this meet with the Editor's approbation, I shall refer to the subject again, and forward another communication.

[We shall feel much obliged to our Correspondent for the promised favour.—CONDUCTOR.]

ARTICLE VI.

ON THE EUPHORBIA SPLENDENS.

BY A SUBSCRIBER TO THE FLORICULTURAL CABINET FROM THE BEGINNING.

IF we take a retrospect of the plants that have been introduced into the stoves of Great Britain within the last few years, not one has pre-

ference to the *Euphorbia Splendens*: the length of time the involucre continues expanded, the elegant growth of the plant if properly managed, gives it a decided pre-eminence among stove plants. This lovely plant was introduced into Germany a few years ago, through Baron Kerwinski, and introduced from thence into Britain by Mr. Runch. It is a native of Mexico.

Cultivation.—Mix equal quantities of loam, peat, and rotten cow dung with a little sand. If cow dung cannot be got, any very rotten manure will do. *Cuttings* will strike very freely in sand. After they are struck, pot them off into sixty pots, and shift them regularly as the pots become full of roots. It is very necessary to stop the terminal shoots frequently, otherwise the plant will grow very deformed, or, as gardeners term it, be long-legged. When the pot is full of roots, the plant will flower, even if it be very small; so it must be observed, that if cultivators desire to have large plants, they must shift them frequently until they wish them to show their involucre.

I am quite surprised that you have not more communications on the cultivation of Orchidæ plants. I intend to send you a few notes on the subject, and will endeavour to elucidate the cultivation of that difficult but highly interesting tribe of plants.

Chiswick, March 16th, 1840.

[We shall feel obliged by the promised favour of our correspondent.
—CONDUCTOR.]

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

1. *CALOSTEMMA LUTEA*, Yellow. (Bot. Reg. 19, 1840.) Amaryllidaceæ. Hexandria Monogynia. A bulbous plant, a native of New Holland, from whence bulbs are imported into this country, and it is found to thrive best in a greenhouse, grown in peat, loam, and sand. Like other bulbous plants, it requires its season of rest, or will not bloom; and as soon as it begins to push, water being given liberally, it causes it to flower. The flowers, which are an inch across, are produced in umbels, each having from twelve to twenty flowers, of a deep yellow colour.

2. *CRANOTHUS PALLIDUS*, Pale-flowered. (Bot. Reg. 20, 1840.) Rhamnaceæ. Pentandria Monogynia. This beautiful flowering shrub we saw in bloom in the London Horticultural Society's garden, where it blooms very freely, trained

against a wall. Dr. Lindley observes that this plant is known in some nurseries under the names of *C. ovatus* and *C. thyrsoiflorus*, but from both it is very distinct. The first is a mere variety of *C. Americanus*, and the latter is a Californian tree, with deep blue flowers, and very strong angular branches. The present species is much hardier than *C. azureus*, the flowers are of a pale blue. The plant merits a place wherever there is a convenience; it is easy of cultivation, grows rapidly, blooms profusely, and is to be obtained very cheap.

3. *IPOMEA LONGIFOLIA*, Long-leaved. (Bot. Reg. 21, 1840.) Convolvulacæ. Pentandria Monogynia. A native of Mexico, and introduced into this country by the London Horticultural Society. Mr. Hartweg discovered it growing in pastures about Leon, and called Quebra platos. It is a half-hardy perennial, having a long spindle-shaped root, and the stem rising to five feet high, without any branches. It blooms from July to September, each flower opening in the morning and perishing in the evening. The flowers are delightfully fragrant, diffusing a delicious perfume resembling noyau. Each root sends up three or four shoots, and if taken off when two or three inches long readily strike root. It delights, like most of the Ipomeas, in a strong, rich, but not damp soil, and requires the usual winter treatment given to such roots, taken up, kept dry, free from frost, and excluded from the air as much as possible. The flower is white, with a slight tinge of sulphur, and a rosy-purple centre, each being about four inches across. It is a most desirable plant.

4. *IMPATIENS GLANDULIGERA*, Glandular Balsam. (Bot. Reg. 22, 1840.) Balsaminæ. Pentandria Monogynia. Another of the Indian species raised in 1839 in the Garden of the London Horticultural Society, and where it bloomed very freely. The seeds were sown in May, and by the end of August the plants had attained the height of twelve feet. It is not quite as hardy as the kinds having long fruit. The flowers are of a beautiful rosy-purple colour, each flower being about an inch and a half across. Dr. Lindley remarks that it is one of the most beautiful plants that can be looked upon if grown in an atmosphere it likes.

[We noticed this in our March number.—CONDUCTOR.]

5. *GENISTA BRACTEOLATA*, Racemose Genista. (Bot. Reg. 23, 1840.) Fabacæ. Diadelphia Decandria. A native of Teneriffe, sent to the nursery of Mr. Young, Milford, near Godalming, by Mr. Webb. It requires to be grown in a greenhouse or conservatory. The flowers are produced on terminal racemes, yellow, and flowering freely; the plant is very showy.

6. *CŒLOGYNE WALLICHIANA*, Dr. Wallich's. (Bot. Reg. 24, 1840.) Orchidæ. Gynandria Monandria. A native of the lofty mountains in Bengal, inhabiting rocks and the trunks of trees among moss. The pseudo-bulb has much the form and hue of truffle, and loses its leaf before the flowers appear, which come up one on either side. The flower is nearly as large as *Cattleya labiata*, of a fine rose colour, streaked with yellow, and ridges of white tubercles, also having some deep crimson stains on its surface. The flower stem only rises about two inches high.

7. *OSBECKIA CANESCENS*, Hoary-leaved. (Bot. Mag. 3790.) Melastomacæ. Octandria Monogynia. This very beautiful flowering plant has bloomed in the Edinburgh Botanic Garden, where it had been received from Berlin. It thrives and blooms profusely in moderate heat. The plant grows to about seven feet high, and its lovely flowers are produced in panicles. Each flower is about an inch and a half across, of a fine reddish-lilac above, paler below. The anthers are of a deep purple. The plant deserves a place in every collection, in a coolish stove, warm greenhouse, or conservatory.

8. *EPIDENDRUM DENSIFLORUM*, Cluster-flowered. (Bot. Mag. 3791.) Orchidæ. Gynandria Monandria. A native of Mexico. It has recently bloomed in the noble collection at Woburn. The stem rises a foot high, and terminates with a long branched peduncle, of deflexed branches, and they are clothed with spiked flowers of a greenish-brown colour, the lip being almost white. Each flower is about an inch across.

9. *MILTONIA CANDIDA* VAR. *FLAVESCENS*, White-lipped. (Bot. Mag. 3793.) Orchidæ. Gynandria Monandria. A native of Brazil, imported by the Earl of Arran. The flowers are very beautiful, and are produced on a scape, which rises about two feet high, sepals and petals of a bright yellow, having large ferruginous blotches. Lip yellow, with a purple blotch. It merits a place in every collection.

10. *BEGONIA DIVERSIFOLIA*, a stove plant, producing numerous large flowers of a bright pink colour.

11. *SPIRONEMA FRAGRANS*, an herbaceous plant, from Mexico, introduced by George Barker, Esq. Sepals green, petals nearly transparent. It belongs to the Commelinaceæ.

12. *COBEÆ STIPULARIS*. From Mexico. It has been raised in the London Horticultural Society's Garden. Its habit is that of *C. scandens*; leaves narrower, flowers said to be yellow, three inches long; if so it is a very desirable plant.

13. *GARRYA LAURIFOLIA*, a hardy species from the mountains of Mexico; plants have been raised in the Horticultural Society's Garden. Mr. Hartweg has discovered four other species in Mexico. The present species is a handsome looking plant, with oval laurel-like leaves. It grows to a shrub of five or six yards high where Mr. Hartweg found it, but it is said to grow to a tree with a trunk two feet in diameter.

14. *CLETHRA MEXICANA*, a native of the colder parts of Mexico. It is in the collection of Messrs. Loddiges. It is a hardy evergreen shrub, and produces flowers as large, white, and handsome as *C. arborea*. The plant deserves a place in every shrubbery.

15. *LOPEZIA LINATA*, a pretty greenhouse shrub, raised in the Horticultural Society's Garden. It is a native of Mexico. The flowers are very pretty, of a pale red colour, and are profusely produced during winter and spring.

16. *COTONEASTER DENTICULATA*. From Mexico; raised in the Horticultural Society's Garden. It is a hardy shrub. The flowers are small and white or pink, on little terminal corymbs. The leaves are about an inch long, dark green above, white below. It fruits similar to the older species we possess.

17. *CORNUS GRANDIS*. From Mexico; raised in the Horticultural Society's Garden. It is hardy at present, having large and beautiful foliage.

18. *CORREA BICOLOR*. The flowers are about two-thirds the size of *C. speciosa*. The lower part of the tubular flower is a fine crimson, and the upper portion pure white, producing a very beautiful contrast. The foliage is oval and rather small. This is the handsomest kind we have seen in bloom.

19. *CORREA ROSEA MAJOR*, and *C. ROSEA*. Both kinds have beautiful rose-coloured flowers, the former being much larger than the latter, and more deserving attention. The above are well worthy a place in every greenhouse or conservatory; the neat and beautiful blossoms produced in the winter and spring give a pretty effect at those seasons, and alike render the plants very desirable.

20. *DILLWYNIA SPECIOSA*. This is one of the most lovely of South Australian plants, producing a vast profusion of its pea-formed flowers in terminal clusters from nearly every shoot. The standard is of a deep yellow, and wings of a reddish purple. It deserves a place in every conservatory or greenhouse. The plant is an evergreen shrub, with heath-like foliage, growing to about two feet high. Being so very showy, it has been sought after, and may be had of most of the principal nurseries, though but introduced in 1838.

21. *IXORA BARBATA*. We saw a specimen of the present species in bloom in the noble and select collection of Mrs. Lawrence at Ealing Park. The spike of flowers is similar in form and size to the *I. coccinea*, hairy, and of a pure white. It deserves a place in every collection of stove plants.

22. *IXORA ROSEA*. This species we saw at Mrs. Lawrence's, producing fine heads of rose-coloured flowers.

23. *IXORA OBOVATA*. This fine species was in bloom in the same collection, having fine heads of pink-coloured flowers.

24. *PAVETTA CAFFRA*. Another fine hothouse plant at Mrs. Lawrence's; produces heads of flowers very similar to an *Ixora*, of a pure white. This being in bloom when the *Ixoras* are, gives a fine contrast.

25. *IXORA INCARNATA*. We saw this pretty species in the collection at Messrs. Rollisson's, Tooting. Its heads of fine flesh-coloured flowers are very pretty. The whole tribe of *Ixoras* are well deserving a place in every collection of stove plants. They can be had cheap, are easy of culture, and profuse in flowering.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON SOWING SEEDS, DESTROYING GREEN FLY, &c.—Will you, or any of your numerous correspondents, have the goodness to inform me whether the following plants can be raised from seed with only the aid of a common hotbed; also the best time for sowing, and the proper mode of treating the young plants to make them flower as soon as possible? viz., *Gloxinia speciosa* and *Gloxinia caulescens*, *Lobelia cardinalis*, *Ipomopsis elegans*, *Pentstemon gentianoides*, and *Maurandia Barclayana*. Will you also inform me of an *effectual* method of getting rid of the Green Fly, so destructive to Rose trees, Geraniums, &c.? The last two years I have purchased a number of fine young plants of Geraniums in May, from a nurseryman in this neighbourhood, and have kept them to flower in the house; and in less than a week they have been invariably attacked by the Green Fly. I have tried fumigating them with tobacco-smoke, washing them with lime, tobacco-water, &c., but without success; the insect has soon reappeared, and by its ravages weakened the plants so much that I have been quite unable to preserve them through the winter. I would also respectfully suggest to the Conductor of the Cabinet the utility of stating in his notices of new and rare plants, whether they can be raised from seed, and are annual or perennial.—[As far as possible we will attend to it.—CONDUCTOR.]

I have a few other queries to make, but as I fear I shall trespass too much upon your pages, will defer them until some future period, when, if agreeable to the Conductor, I shall be glad to forward them. The insertion of the above in your next number will oblige your constant reader,

February 21, 1840.

SOLOMON.

[Seeds of the plants named should be sown immediately in a very sandy loam, and cannot be placed better than in a hotbed frame. The surface soil upon which the seeds are to be sown should be very fine, as also that with which they are covered, and when sown be gently pressed to close it to them. When the plants are up an inch high, they may be safely transplanted singly into pots. A light rich loam is suited to all of them. After potting, they should be placed again in the frame, till they have struck into the soil, then be removed into a greenhouse, or other cooler place. The *Gloxinias* require to be kept in the frame, or be taken to a plant stove, vinery, &c. Tobacco-water may be procured from the manufactory at about tenpence per gallon; this *will destroy* the Green Fly. If it be diluted by an equal proportion of water added, it is quite strong enough for the purpose. The best plan is to turn the plant upside down, and immerse it therein, by holding it for a minute or so. The liquid will keep, closed up in a bottle, so as to answer for years. We have used it thus successfully for many years. To purchase a small portion of tobacco, and make a weak liquid, will not answer, but the genuine expressed liquor of the tobacco-nist will do. Whenever the insects appear on the plants, a fresh immersion is requisite. The liquid in its pure state is not in the least injurious to vege-

tation. We shall be glad to receive any queries or other communications from our Correspondent; such shall have our early attention.—CONDUCTOR.]

In the Floricultural Cabinet for this month, Article 4, page 29, is a recommendation of a "*Brick*" Arnott's stove, for use in Greenhouses, with some *slight* account of its make, but in my opinion not sufficiently explanatory to enable a person to construct one properly. It would oblige me, and I have no doubt many others of your subscribers, if you could obtain for insertion in your next number, a detailed account of the mode of constructing the stove above mentioned, the probable expense, a plan or two, and its peculiar advantages over the iron stove.

SUFFOLK.

[We did not know the real address of our correspondent who favoured us with the remarks inserted at page 29, so could not comply with the request above made to appear in our present number; but we very respectfully solicit further observations from our correspondent who sent us the former ones, so as to meet the wishes above expressed, and as early as convenient.—CONDUCTOR.]

ON SOIL SUITABLE FOR PETUNIAS.—You would confer a great favour if you would inform me, through the medium of your valuable Cabinet, what is the most suitable soil for Petunias. I have a large number of seedlings, from first-rate varieties, consequently I am looking forward with anxiety to their blooming, but they do not grow so luxuriantly as I could wish, for want of, as I imagine, proper soil.

C. W. F.

[On a light loam, well enriched with rotten dung, they grow vigorously with us, having an inch deep of broken pots for drainage.—CONDUCTOR.]

ON FLORICULTURAL MEETINGS.—An Old Subscriber would be glad of some information relative to the conducting of Floricultural Meetings, for instance as to the arranging of plants so as to give the least trouble to the judges in awarding the prizes; how each exhibitor's plants are to be marked so as to do away with the appearance of unfairness, and whether a person, having anything for exhibition, is allowed to be present to give assistance in any way during the time the judge is determining the prizes, &c.

[Certainly such person should not be present; the other information shall be given next month.—CONDUCTOR.]

ON IRIS BICOLOR.—Has the Iris bicolor (buff with a dark eye), figured in Loddiges' work, any other name, and what is the best way of cultivating it?

AN OLD SUBSCRIBER.

ON TWEEDIA CÆRULEA.—Has any subscriber grown the Tweedia cærulea successfully? if so, will he be kind enough to instruct the ignorant?

AN OLD SUBSCRIBER.

ON WATER-PLANTS.—I should feel greatly obliged to you, or to some of your correspondents, to inform me, in the May or June number of the Floricultural Cabinet, what Lilies, or other water-plants (to the number of about half a dozen), are the most suitable for a small pond of eighteen or twenty feet in diameter; also whether the circumstance of ducks being allowed to use the pond would be likely to prevent their flourishing properly. May I further trouble you to tell me whether plants of the American Cranberry can be purchased of any of the English nurserymen, or whether they or the Scotch Cranberry (which I think I have understood only succeeds by running water) would make a suitable as well as useful plant for the margin of a stagnant pond? Directions as to the planting or after-treatment of the Cranberries and Lilies would confer an additional favour upon an

Sherborne, Dorset, April 9, 1840.

AN OLD SUBSCRIBER.

[We hope some of our readers will favour our correspondent with an early reply.—CONDUCTOR.]

ON IVY, IF INJURIOUS TO THE SCOTCH FIR.—A subscriber to the Floricultural Cabinet will be obliged by Mr. Harrison and several good gardeners, stating it as their opinion from observation (in an early number) whether the Ivy running up the Scotch Fir is destructive to the tree, occasioning the outer and upper branches to die.

ON RAISING THE TROPÆOLUM TRICOLORUM FROM SEED.—In July, 1838, there appears a query addressed to the Editor, or correspondents, of the Floricultural Cabinet, requesting some information on raising the *Tropæolum Tricolorum* from seed, (by a young amateur,) an answer to which I think has never appeared. Like unto his plant, mine also has produced some very fine seeds, some of which were sown as soon as ripe, and at other times since then, but have not succeeded (to my great disappointment) in raising any plants, still the seeds keep fresh. Are they a long time before they begin to vegetate? or do they require more heat than what is generally given to the mother plant? If you, or any of your numerous correspondents, can give me any information on the subject, it will be thankfully received by

Warwickshire, Feb. 23, 1840.

A CONSTANT READER.

ON A MANURE, AND PUMP WATER.—As an original and constant Subscriber to the Floricultural Cabinet, I beg to be favoured by an early answer to the following inquiries:—

In cases where animal manure cannot be obtained, is there anything that can in some degree (and what will best) supply the place of it, either in the kitchen or flower garden?

Can pump water be in any way prepared or medicated, so as to render it as fit for garden purposes as rain or river water, when those cannot be procured? An early reply by some reader will oblige

Mar. 19, 1840.

E. Y.

ON GERANIUMS (PELARGONIUMS).—I hope your correspondent, Mr. Loudon, will gratify the readers of your useful publication with a descriptive list of some of the most admired Geraniums of the last season, similar to that contained in the March number of last year, viz. Firebrand, Sylph, Conservative, Magna Charta, Vivid, Viola, and others. I have a small collection of that beautiful class of plants. I shall be glad to profit by the judgment of your correspondent in selecting the addition to my stock for the present season. A compliance with this request in an early number will much oblige

Feb. 7, 1840.

A SUBSCRIBER.

A LIST OF PLANTS FOR A ROOM, &c.—I shall feel particularly obliged if you will furnish me, in your next Cabinet, with a select list of plants that will succeed best in a room, and whether they should be raised from seeds or cuttings. Can you also inform me what it is that is recommended in the Gardener's Magazine, vol. xv. p. 248, for obtaining bottom heat, communicated by a person of the name of Gregor? I believe it is something new. Also, if there is any way of obtaining bottom heat by a simple apparatus, and at little expense? I shall be greatly obliged if you will give me the above information.

Feb. 13, 1840.

X. A SUBSCRIBER.

A LIST OF GREENHOUSE CREEPERS, &c.—A subscriber will be much obliged to the editor of the Cabinet if he will have the kindness to give him a list of the names of the best kinds of Creepers for a greenhouse, where no vines are kept, and what kinds will do in pots, and what soil is suitable for each? Whether Camellias do well at the back of a greenhouse, the best way to plant them, and what kind of soil to plant them in? An answer in the next month's number will much oblige

Feb. 9, 1840.

A SUBSCRIBER.

ON THE CULTURE OF THE CLEMATIS SIBEROLDII.—I should feel extremely obliged to any one of the numerous readers of the Floricultural Cabinet, or to the Conductor, in informing me the most successful mode of cultivating this most charming plant. An early answer will oblige

Gunnersbury, Mar. 17, 1840.

J. S.

ON ANNUAL SEEDS.—I should be much obliged to you, or any of your correspondents, if you will recommend a good place for procuring Annual Seeds in London, as I have been many times disappointed in the things I have purchased of several seedsmen; and I know many persons are inclined to impose, by selling last year's seeds, or those that are altogether bad.

As the time for sowing Annuals is so fast approaching, I should be obliged by a speedy answer.

London, Mar. 16, 1840.

KALMIA.

[We have procured very considerable quantities from the seedsmen who advertise their lists, (see February and March advertising sheets,) and do not recollect a single failure. We hesitate not to state that the integrity of the parties we allude to is such, that they would not have recourse to a practice of the character described by our correspondent].—CONDUCTOR.

ANSWERS.

ON ARNOTT'S STOVE.—In reply to the inquiry of your correspondent, signing himself Surreyensis, I beg to say I have for two years tried Dr. Arnott's Stove in my greenhouse with perfect success—the thermometer ranging between 38 and 48 degrees.

I light it at about 10 o'clock on every frosty night, and find it alight at 9 in the morning. My greenhouse is about 16 feet by 10, and my stove the smallest I could procure. It is fixed at one end of the house, and the thermometer is suspended in the centre. The floor is of wood, being supported on columns.

Great Berkhamstead, Mar. 5, 1840.

REV. JAMES BROWNE.

In answer to F. J., page 37, February number, we annex the names of some of the best new Dahlias for 1840, which we have seen.

Bloomsbury, Pamplin.
 Beauty of the Plain, Sparry.
 Argo, Widnall.
 Penelope, Hedley.
 Fair Rosamund, Parson.
 Pickwick, Cormack.
 Yellow Defiance, Cox.
 Bishop of Winchester, Jackson.
 Charles XII., Harrison.
 President of the West, Whale.
 Lady Middleton, Jeffries.
 Grenadier, Jackson.
 Henrietta, Begbie.
 Vitruvius, Davis.
 Windsor Rival, Begbie.
 Scarlet le Grand, Winfield.
 Elizabeth, Foster.
 Phenomenon, Whale.
 Recovery, Toward.

CONDUCTOR.

REMARKS.

ON KYANIZED WOOD IN A GREENHOUSE.—In the notice which I sent you, and which you inserted in your January number, I mentioned Kyanizing the wood, without, however, giving any opinion whether that was advisable or not. Since I wrote you, I saw an article stating, that this, when used in the construction of a greenhouse, had been found hurtful to the plants, particularly so to the *Calceolarias*. I cannot find the place where the statement is made, so cannot refer to it, but as Corrosive Sublimate, which is employed in Kyanizing, is a poison to plants, the use of it in preparing the wood appears inadvisable; and I observe your correspondent, J. R., in your March number, states the injurious effects of Kyanized wood when employed for tubs for the larger plants.

16th March, 1840.

SCOTUS.

ON STREPTOCARPUS REXI.—I have seen several papers on the treatment of the *Streptocarpus Rexi* in the open borders, but I hear that it is scarcely more common in gardens than it was several years ago. If planted where it can enjoy shade, without being deprived of air, it produces its elegant blossoms in abundance; and when in perfection, it can hardly fail to be as great a favourite with florists in general as it is with

COMMELINA.

ROYAL BOTANIC SOCIETY.—The first meeting of the Fellows of the Royal Botanic Society of London for this session was held on Tuesday evening at the apartments of the society, 49, Pall Mall, the Marquis of Northampton, vice-president, in the chair. After the preliminary business, a ballot for the election of fellows took place, when 189 noblemen, ladies, and gentlemen, were added to the list. At the next meeting the plans for laying out the gardens in the Regent's Park, for which there is great competition, will be exhibited to the fellows and their friends. The designs are to be sent in on Saturday, the fourth of next month, and the exhibition of them will take place on Wednesday following.

Mr. Anderson, of the Chelsea Botanic Garden, finds lime water a complete antidote against the white bug in hot-houses, and he prepares it in the following manner:—"We have a large garden pot or a pail, into which we put half a pint of pulverized Dorking lime, with about half an ounce of black sulphur; after being well mixed, we add four gallons of water, stir it well, then let it settle, and when clear, we take Mr. Dougal's syringe, and throw it under the leaves. We have been using this syringing for the last twelve months, and there is not a bug, red spider, or thrip, in the house.—*Gardener's Magazine*. [Mr. Anderson thinks it will also be useful for destroying the American bug on Apple Trees.]

ON ARNOTT'S STOVE.—I am surprised at your correspondent's asserting, in the most unqualified manner, that Arnott's Stove will not heat a greenhouse properly; he must have made a sad bungle for it to have failed. Let him call on Mr. Rivers of Sawbridgeworth, and he will there see a Geranium house heated by one of Arnott's Stoves, which has now been in operation two seasons, and the plants are in the most vigorous and healthy state. The chimney into which the pipe is conducted should be above the pitch of the roof, so as to prevent the wind blowing down it, and a pan of water should be constantly kept on the stove when the fire is burning. For heating small greenhouses Arnott's Stove is invaluable.

FACT.

SEEDLING CACTUSES.—Whenever the seed is ripe, sow it in sand, then place the pot on a shelf in a *warm* and *dry* situation. It will vegetate readily. Little water should be given to the plants when up. As they root well in sand, they need not be potted till they are tolerably strong plants. The best soil to pot them in is loam, peat, and brick rubbish, and be well drained.

Plants of this tribe have been grown very vigorously in frames heated with dung or tan.—**BOT. REG.**

MESSRS. TYSO AND SON'S METHOD OF WINTERING DAHLIA ROOTS.—Take up the roots, drain out the water occasionally to be found in the hollow stems, secure the labels with copper wire, put the roots in layers under the stage of a greenhouse or in the cellar, and cover with *moist* sand, and they will turn out early in March as plump, and, in ninety-nine cases out of a hundred, as sound as when housed in November.

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, Browallis, &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 10*d.* or 1*s.* 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 *Salpiglossises*, *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.

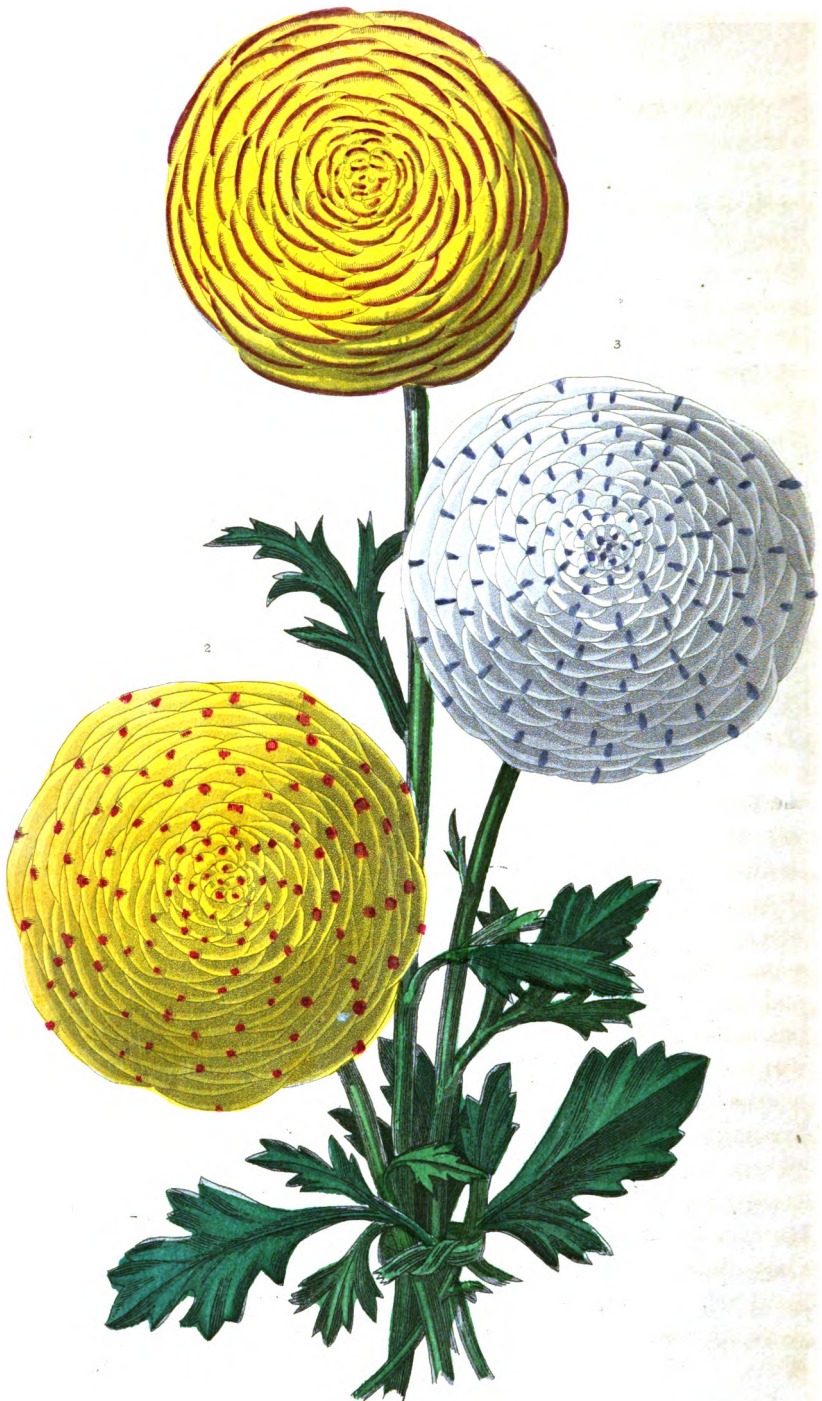
FLOWER GARDEN.—Continue to protect beds of *Hyacinths*, *Tulips*, &c. Carnations in pots should be encouraged by manure water, &c. in order to grow them vigorously: care in striking them will be required. By the middle of the month, half hardy annuals—as *China Asters*, *Marigolds*, &c.—may be planted 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*, *Salpiglossises*, *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.

CINERARIA ELEGANS.—This very handsome kind was raised by a gentleman in Hampshire, and the specimen sent us by Mr. Harris of the Upway Nursery.

It is a most desirable variety, well worth cultivating in every collection of this pretty tribe of plants, which are easy of culture, profuse in blooming, and continue in flower for several months.

CORREAS.—These very handsome flowering hybrids were raised by T. Milner Esq., of Stockwell, and are very valuable additions to this lovely tribe. The habit of the plant, the graceful mode of flowering, and affording a profusion of flowers in winter and early spring, and even up to autumn, by proper treatment, alike render them worthy a place in every greenhouse or conservatory. We obtained a stock of them as soon as we possibly could, being anxious to possess such desirable kinds.



Seedling Ranunculus Digitized by Google
raised by the Rev. Josh. Tysse & Son

THE
FLORICULTURAL CABINET,

JUNE 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON THE CARNATION.

BY MR. JOHN FREDERICK WOOD, NURSERYMAN, COPPICE, NEAR NOTTINGHAM.

Read before the Beeston and Chilwell Horticultural Societies.

(*Concluded from p. 99, No. 87.*)

As the layers grow, or spindle as it is usually termed, they must be carefully tied up to the sticks with soft worsted, or fastened with Rowland's metallic wire. After they have grown about a foot high, a top dressing of very rotten cow manure will be found very beneficial; and as the weather gets warmer, they must be carefully watered, the soil in the pot never being allowed to get thoroughly dry. As the buds appear, and you have decided which to remove, they may be reduced in number, and the laterals or side buds also taken away, so that all the energies of the plants may be directed towards those that remain, and which will increase their size if intended for exhibition. The number of these should be regulated according to the strength of the plants; some think that three flowers are enough for each layer to bring to perfection, but five, I think, is generally about the mark. The buds and plants are now subject to the attacks of various insects. The cuckoo spit is one of them, and is easily seen and removed. The green fly is more common and troublesome, but may easily be got rid of by using a small bag of Indian rubber, similar to the one

here exhibited ; this being filled with Scotch snuff, the buds must be examined very early in the morning, or immediately after rain, they will then be generally found clustered together, and a puff or two of snuff does their business effectually. This application of snuff may be repeated now and then even should no insect be perceptible, as will prevent the attack of another annoyance whose presence is not so easily detected ; I allude to a small black insect, which inserts itself, as the flower begins to open, beneath the calyx, or green outside covering, and feeds on the coloured parts of the petals, so as completely to disfigure the flower when it expands. When buds burst, it is evident that there is negligence in the management, and, in order to prevent this, thread rubbed with bees' wax is put round several times, and the ends merely twisted ; as the buds increase in size, these are untwisted and slackened.

Some people use sheep's bladder cut into narrow strips and wetted, which causes it to stick fast, but this does not allow for the swelling of the flower ; so that I am inclined to think the bees'-waxed thread the preferable tie. As the flower expands, a collar of pasteboard is placed under the guard-leaves, and the careful florist will assist his bloom as it advances, extracting all self, muddy, or misshapen petals, and arranging the others to his mind. Within these few years Rowland's metallic wire has come much into use, and by means of it each flower may be kept exactly in the place the grower wishes, without any possibility of its being removed by the wind ; and he may have several flowers under a handglass, when fully blown, which will not chafe against each other.

The flowers to be retained any length of time must, of course, be shaded from sun and rain : this is done in various ways : those who have the convenience of a Tulip-shed, remove the pots beneath the awning ; others have circular caps of paper, which is oiled or painted, a wooden socket goes through the centre, which is slipped down the stick, a small nail keeping it the required height ; a more simple method still is, a small square board with a hole on one side for the stick to pass through ; these are in general use ; but the box of about five inches square, and three inches deep, glazed at top with a single piece of glass, having a brass loop for the stick, through which a screw passes to adjust it at any height, a few turns will retain it at its proper distance over the flowers, without any chance of its slipping

down upon them. At this stage of their growth they are exposed to the attacks of the ant, or pismire, and the earwig; the latter is very destructive to the blooms, eating away the bottom of the petals. They may be caught by placing the bowls of tobacco-pipes on the top of the sticks, but they must not have been smoked with, as the smell of the tobacco is very obnoxious to them. Crabs' claws are a good substitute, and the dried hollow stalks of beans, laid on the surface of the pots, into which they will retreat, must be examined every morning, and the enemy destroyed. The ants may also be killed by watching their track, when, having found the nest, a dose of boiling water will generally be found sufficient.

The flowers having escaped, by the vigilance of the growers, the various vicissitudes to which they are liable from the time they are planted out to the period of perfecting their bloom, the florist feels a conscious pride in exhibiting his beauties to his various visitors, and names and titles without number are brought forward in rapid succession; and Kings and Queens, Dukes and Duchesses, Squires and Councillors, Prophets and Lord Chancellors, Romans and Philosophers, Actresses and Prime Ministers, Missionaries and Doctors, Sweethearts and Soldiers, Archbishops and Racers, all pass in review; and, in fact, a florist's vocabulary seems to have no end. He descants on their various perfections, and praises their shape and colour, till he fancies himself invincible, though perhaps he may puff, and say he has no chance. The exhibition day arrives, and all his trouble and care is rewarded, provided a few of his favourite flowers are successful.

And here it will be proper to observe, that it is by no means certain that the most careful, or the most extensive grower, will excel at an exhibition, unless he either is a good dresser of a flower himself, or gets some one else to do the needful for him. This arranging the petals, or, as it is technically called, dressing, is an art of considerable nicety, and a grower who is an adept at preparing his flowers for the stage, has a much better chance of obtaining the prize than his neighbour who cannot "dress," even though he be otherwise an inferior grower.

Whilst on the subject of dressing, I may just observe, that many tricks are played with flowers for exhibition which are extremely reprehensible; and where the various plans are adopted, let them be

viewed in what light they may, or whatever false gloss may be put on such proceedings, it amounts to nothing less than downright cheating, and is a dead robbery on the fair exhibitor.

There have been plenty of instances, where a pod had been bursted, of putting the flower into a fresh one. I well recollect an instance of a first pan of Carnations, at an exhibition in one of the midland counties, in which one of the pods was split to the bottom, and consequently ought to have been disqualified; but by matching the pod with a piece of green silk, and tying it round close up to the petals, it escaped the scrutiny of the judges.

At another time I have seen bad leaves taken out, and good ones substituted, a pellet of cotton wool being crammed down, to keep them in their places. But this is also done in a much neater way, by drawing the petal down into the pod with a piece of green silk. And a most respectable nurseryman and florist, not a long time ago, informed me that he had seen a Carnation composed of petals taken from other flowers, not one of which belonged to the pod in which they were put, but were the best that could be selected from perhaps a dozen flowers. The result was, an unbeatable flower was made up.

In dressing Carnations, it is considered fair to remove what leaves you choose, and, with a pair of tweezers, to put them in the best and most regular form, the petals imbricating each other, with a few short ones in the centre, forming the crown; but extremely wrong to make any addition thereto from other flowers. But, to the credit of this Society, and which no doubt has tended to promote the harmony and unanimity which has so long prevailed amongst us, no case of this reprehensible system has come under my observation during the twelve years I have been connected with it.

We must now retrace our steps; and I must direct your attention to the time when the pod bursts sufficiently to enable the colour to be distinguished. If not "run," as it is termed, or the flower a self, and the grass is sufficiently long, I commence layering. Some defer it to a later period; but where there is a large stock to operate upon, it is best to take time by the forelock; at all events, I am an advocate for early work.

Some will tell you that they are more apt to spindle; but if they had not been layered, I imagine they would have done so and I should also think that the very act of cutting it would operate as a

check ; for the formation of roots must necessarily require a certain supply of sap ; and, at all events, the layers should be removed when well rooted ; for after they have got a large quantity of fibres they may then be getting sustenance from their own as well as the parent plant ; and thus having a double allowance of nourishment, they will then be likely to spindle.

The operation of layering properly is one of some nicety, but there are many bunglers ; much has been written ; but it requires practice and patience to do it well. I tried last year a plan recommended by a writer in one of the floricultural publications ; it was merely to cut out a notch just below a joint. It certainly had simplicity in its favour ; but I must candidly say, that those thus operated upon were the worst rooted in my collection. Still I shall, if possible, give the plan another trial next season. The system generally followed, and the one that I find to answer best, is, after having provided an equal quantity of road-dust and decayed leaves, or other vegetable soils, well mixed, and a quantity of pegs, either made of braken or fern, or, what is far better, leaden ones, cast in a mould, I place my pot in a wheelbarrow, or on a low table, and take my seat in front. I then with a sharp knife remove the lower leaves close to the stem, and shorten the ends of the others ; but, as I before observed, I am not fond of cutting away too much. When all the layers are trimmed, some of the compost must be put on the pot ; and, having selected the joint to cut through, I place my finger at the back, to keep it steady, and gently insert the point of a surgeon's dissecting knife, of the smallest size, in the centre of the stem, pushing it gently forward, with the edge downward, until the blade is half through ; I then give the handle a slight twist, and bring the blade out below the joint on the under side, thus forming a nice tongue. The nib is then cut back to a joint and the piece of leaf stripped off, leaving a small bud at the bottom ; it is then carefully pegged down in the fine soil which had been placed on the pot ; each layer is operated on in a similar manner. When all down they have a little more soil put on them, but by no means should they be buried deep. It sometimes happens that there are shoots so high as not to be conveniently brought down to the same level as the others ; when this is the case, a large piece of broken pot is placed within the rim, which holds up the soil, and makes a higher surface in which they are layered, or sometimes they

will be long enough to insert in small pots placed close to the stem. After having got all the shoots down, and slightly covered with soil, I place smooth flat stones, about the size of a halfpenny, as near as possible over the cut of each layer. This stone not only prevents the soil being washed away from that particular part, but I feel convinced it very much accelerates the rooting; for let the weather be hot, and the soil in other parts of the pot dry, if you examine beneath these stones, a genial moisture will be perceived, yet the pebbles contract heat, which they slowly give out, much to the benefit of the layers. I must here notice the operation of piping, and though the Carnation is much more difficult to root than the Pink, yet I have adopted it with tolerable success; the great matter is to do them early, for they require plenty of time. I insert them in a light soil, under a north-east wall, and having watered to settle the soil about them, when perfectly dry, they are covered with a hand-glass; they sometimes require a slight shade; this is accomplished by putting a little soil on the top of each glass, but I do not remove the glass till I see they are establishing themselves, unless any damp off, in that case they are taken away. The worms will sometimes prove injurious, both to the pipings and to the layers; when they are perceived, a little water in which hot lime has been slaked will destroy them if poured over their holes. The layers must be constantly watched, and soil added now and then, but it must be with a sparing hand; they may be watered most evenings in hot weather, but it should be with water which has been exposed to the action of the sun during the day; and but little other attention will be required till they are ready to take off.

Before concluding, some little notice must be taken of the seed. As the flowers begin to fade, it is necessary to remove the withered petals; this should be done without injuring the pointals or female organs of the flower, which are like two small horns; for if allowed to remain they often contract dampness, which is fatal to the embryo seed. It is also a good plan to slit down the pod in order to prevent any lodgment of water.

When the pods are full ripe they may be gathered, and the seed should remain in them till the following spring, and about the latter end of April may be rubbed out, and sown in shallow pans or on a bed, covering them slightly with soil; they may remain here till they are about three inches high, when they may be planted out on a

moderately rich bed. It is well not to have them too strong the first winter, but the following spring the surface of the soil may be covered with a very rich compost. As the seedlings spindle, the single ones should be removed to give the others room; and should the raiser be fortunate enough to have one that strikes his fancy, he may layer it, and adopt the same means and precautions as I have before stated. In conclusion, I may observe, that the Carnation sports much from seed. The Scarlet Flake, raised by the Rev. S. Wigg, was from the seed of a Purple Flake; and Picotee seed has been sown when not a single Picotee was the result.

ARTICLE II.

ON THE PASSIFLORA EDULIS.

BY C. S., A SECOND GARDENER.

THE *Passiflora Edulis* is a plant well worthy of more general cultivation, were it only for its pretty and engaging, though short lived flowers; but by bestowing a little pains, and having recourse to impregnation, a good crop of fruit may be obtained. For persons that have the convenience, a pine stove is an agreeable situation; plants grown in pots, and plunged in the bark pit, and trained to a wire trellis near the glass, is deemed a congenial aspect.

The plant seems to require straitening for pot room, in order to throw it into a prolific bearing state, adding to that a copious supply of water in the growing season, which should commence about March, in order to get the fruit ready in good time. The plant succeeds well in a light, rich, loamy soil.

It is easily propagated either by seed or cuttings, the latter being preferable, in order to bring it sooner into a bearing state; two years' old plants being calculated to bear profusely. The fruit when ripe is about the size of a hen's egg. The colour is of a dark brownish purple. The shell is thick, hard, and useless. The inside resembles the jelly of a gooseberry, excepting the colour being yellow, and the seeds much larger. The flavour seems to have a three-fold property combined, and is admirably adapted to the palate of persons in general.

ARTICLE III.

REMARKS ON PLANTING CARNATIONS, PANSIES, &c.

BY C. S., A SECOND GARDENER.

To justify the remarks of your "Correspondent," Mr. Cary Tyso, inserted at page 50, in the March number, 1840, I feel constrained to say his advice is excellent, where he remarks on the erroneous practice of planting the above named kinds of flowers in balls of stiff soil. It is quite customary, when taking up layers of Carnations, &c., from the parent stools, to trowel them up with as much soil as possible, and kneading the soil with the hand, thus forming a compact ball, in which state they are frequently planted. The result has been, the plants never made any proficiency in growth, consequently they have turned an unsightly colour, and many of them have dwindled away. Never having found out the exact reason until reading "Mr. C. Tyso's" remarks, it then struck me very forcibly that he had hit upon the very subject.

Perhaps these few observations may save some the trouble of sacrificing one-half of their plants in order to prove the veracity of his statement.

ARTICLE IV.

REMARKS ON THE THREE RIVAL YELLOW DAHLIAS, viz.
DEFIANCE, ARGO, AND HENRIETTA.

BY MR. WILLIAM WOODMANSEY, HARPHAM, DRIFFIELD, YORKSHIRE.

We have often heard of the Tulipomania of Holland and France; and it has justly moved our commiseration to hear of men so infatuated. What, therefore, must, we think, of the *paper war*, which for the last two or three months has agitated the floral community of England in reference to the DAHLIA. A certain person raises a Dahlia, and he and his friends extol it to the clouds. Another fancies he has raised one as good, if not better, and he takes the best means in his power to give it publicity. Then comes forward a third person with another, which he supposes is equal, if not superior, to either of the others; and thus among the admirers of the *three Rivals*, there is such a *striving for mastery* as almost outdoes the Tulipomania itself.

Again, two of the *Champions* are said to have met at Cambridge, and then we have a long contest about unfair means being used in favour of one, and against the other. Then it is said, that the same two champions met at Birmingham; and a person comes forward, and tells us one of the champions was not exhibited. Again, we are informed, that all the three rivals met at Stafford Hall and had a "*fair stand up fight*," and that the palm of victory was decided in favour of Defiance; this again is contradicted, and it is said, that two out of the three, at least, were equal. Now, amidst all these conflicting assertions, it would almost *puzzle a lawyer* to know how to decide. However, for people who have *plenty of money*, the thing is easy enough; they have only to buy all three, give them an equal chance, and the flowers will themselves settle the matter. But for those who, like myself, have but very slender means, the case is rather a difficult one, especially if they want a first-rate Yellow Dahlia, to know which of the three to make choice of. But supposing all the three flowers to have been equally good last season, it perhaps would not be a difficult matter to foretell which will be the best this season. Defiance, from the great number of orders, is likely to be worked out of all character; and it will be well if it ever regain it (nothing is more against a Dahlia than this). Argo, it is possible, will have the next greatest circulation, and consequently prove the next greatest failure. And Henrietta, from having the least said about it, will probably be the least worked; and, as a matter of course, be the greatest favourite of the three. This is merely a supposition.

For my own part, I am a decided admirer of that old yellow of 1837, Girling's Topaz. It has borne the palm from its first coming out; and I shall be surprised if any one of the *rivals* be placed so often next season as it will be. Dodd's Mary, too, I find is condemned to be grown only one season more; but I think many, with myself, will grow it longer (if spared) for old acquaintance sake, and for what it has already done. However, if I live, I intend to contribute my mite of "honour to whom honour is due" next season. I have selected one hundred old flowers, and about sixty new ones, including all those shown at Stafford Hall, and shall minutely examine the accounts of all the shows, and the other reports that come under my notice, and faithfully mark the number of times each flower is placed in the stands; and among the new flowers, signify

whether in the first, second, third, fourth, fifth, or sixth stands, or classes; and then sum up the whole as the grand total that each variety has been placed through the season; and then, if you think it would answer any valuable purpose, I will send you a copy for insertion in your very useful Cabinet. [We shall be obliged by it. —CONDUCTOR.]

In conclusion, I beg leave to assure the readers of the Cabinet that I shall not do this with a motive to vex any man, or set of men; my motive is merely to amuse myself, and draw up a plan as a sort of guide to my future purchases; and if it be a guide to myself, it will doubtless be a guide to others, if published in any popular periodical. If any person, however, should feel mortified with my remarks on the *rival yellows*, I only beg leave to remind them of the moral in the Fable of the Chamelion.

When next you talk of what you view;
Think others see as well as you;
Nor wonder if you find that none
Prefers your eyesight to his own!

[Though the demand for the yellow Dahlias may be very extensive, we know the quantity of roots was such that they have not to be severely worked to meet it.—CONDUCTOR.]

ARTICLE V.

ON THE CULTURE OF THE DOUBLE ANEMONE.

BY MR. FIELDER, GARDENER.

IN the March number of the Cabinet a correspondent wishes to know the soil most suitable for the Double Anemone. Having been very successful in the cultivation of that beautiful class of plants, I beg to offer my simple method of culture. About the beginning of October I well dung my bed, which is a strong loam, with the dung from an old hotbed; I then dig it to the depth of eight or nine inches, mixing the dung well with the loam. I then cover my bed with a mixture of half light vegetable soil and half sea sand. I plant the roots about six inches apart and two inches deep. In March, if the

weather be dry, I water the bed with manure water. By this simple method I never fail in having a splendid bloom of fine double anemones.

ARTICLE VI.

ON THE SCOTCH THISTLE.

BY T. D. J.

THE Scotch Thistle, although possessing no beauty of flower, is remarkable for its size and stately appearance; which in the open border, in favourable situations, will attain a height of eight or nine feet, with leaves three or four feet in length. The plant is biennial, and should be planted or sown in rich soil.

The plants may be watered with liquid manure the second year, which will greatly advance their vigorous growth. The plant is not only ornamental but useful, as the old stems will make handsome walking-sticks; and as they are hollow, they may be applied to different and useful purposes.

Grindon, May 11th, 1840.

ARTICLE VII.

ON THE TREATMENT OF THE DAHLIA.

BY T. W. WALTON, NURSERY, LIVERPOOL.

As the season for planting out Dahlias is now at its height, perhaps the following hints (if they have not already appeared in the Cabinet) may be acceptable to many of your subscribers and admirers of that beautiful and gorgeous flower.

Notwithstanding all that has been written on the culture and management of this flower, it frequently happens that, after all the care and labour bestowed on planting, grouping, staking, &c., our hopes are blighted, and our cherished beauties humbled to the dust by every storm or gale of wind.

Having had a fine collection of Dahlias under my care, which I used to plant out in the usual manner in large masses in beds on the lawn, and in the shrubbery; and having often the bitter mortification

of finding them blown down and torn to atoms by every storm, I tried the expedient of training them on the ground in the manner of roses. Having my clumps well prepared, and my plants ready, I plant them about four feet asunder, every way taking care that the colours are well contrasted; and as the plants grow, I peg them down with strong pegs in every direction, so that the whole of the surface of the beds is covered; great care is requisite to peg them in the beginning, owing to the brittleness of the stems; as the plants advance in growth, they are firmly pegged down. Nothing can exceed the magnificence of a large clump of Dahlias so treated; they form as it were a large basket of flowers of inconceivable richness and beauty.

By this method, that clumsiness is avoided which often arises from ignorance of height and habits of the different kinds; plants from two to six feet high are planted indiscriminately. Another very material advantage is gained by this method: plants that are apt to grow too gross, and others that are shy of flowering, are by this method induced to flower abundantly, owing to the check given to vegetation by the horizontal position of the plants, in the same manner as the depression of the branches of fruit trees induces fruitfulness, to say nothing of the trouble and unsightliness which is avoided in staking, &c. My plants present a mass of flowers about eighteen inches from the surface; and such a compact mass of bloom falling beneath the eye forms one of the most fascinating objects imaginable.

I generally plant my beds of Standard Roses in the same manner: thus, after my roses have done blooming, they are succeeded by an undergrowth of Dahlia bloom, but the ground in this case must be annually renovated in the best possible manner, owing to the impoverishing qualities of the Dahlia.

I am afraid that the professed Dahlia grower will smile at these suggestions, but to the suburban villa gardener, the amateur, and persons who are desirous of growing this fine flower in bleak, exposed situations, I feel confident that, after trial, these hints will be duly appreciated.

Should these remarks be acceptable, I intend sending you a method of grouping flowers in masses in a new and beautiful manner which I have successfully practised.

T. W.

[We shall be much obliged by the additional kindness of our respected correspondent.—CONDUCTOR.]

ARTICLE VIII.

A LIST OF GREENHOUSE CREEPERS.

BY A CORNUBIAN.

IN the last number of the Floricultural Cabinet a querist requires an answer on greenhouse creepers; and seeing many queries not answered, I take the liberty, through your widely circulated and intelligent publication, of offering a few remarks to your subscribers: not that I pretend to be able to instruct your numerous readers, but that I feel it my duty to make a return for the useful knowledge they have afforded me.

The following kinds are the most handsome I know, as well as free bloomers:—

Bignonia grandiflora is a climbing shrub, growing ten or twelve feet high, but it commences flowering when two or three feet high; its flowers are produced in panicles, each flower being two and a half inches across, and of a deep red colour; it was introduced from Japan many years ago, and should be grown in the border or a large pot, in a rich loamy soil. It flowers in July.

Clematis azurea grandiflora is a beautiful flowering new plant; its flowers are of a pale violet colour, four inches across. It may be cultivated in pot or border of loam and peat. It flowers in April and May; introduced from Japan in 1837.

Clematis florida bicolor (Sieboldii) is a beautiful showy flower, which is of large size, and of a greenish white colour: it has an Anemone-like centre of a dark purple; this and the last species are hardy, but well deserve their room in a house. It blooms in April and May; a native of Japan.

Hoya carnososa is an old plant, but pretty, and free to cultivate in a pot or border; it resembles an *Asclepias* (it is commonly called the Wax Plant). It flowers in June and July; a native of China.

Kennedya rubicunda is a rapid grower, and will not display its beauty except in the greenhouse border. Its flowers are of a dark red, and plentifully produced, in April and May. It is a native of New Holland, and delights in a sandy peat soil, with plenty of drainage.

Kennedya Marryattiana. This is a dwarfer species than the last,

and may be cultivated in a pot of peat and loam; its flowers are of a crimson purple colour. It is a native of New Holland.

Kennedya coccinea is a small and pretty species for pot cultivation; it grows and flowers freely in sandy peat well drained, blooming in April, May and June. A native of New Holland.

Kennedya glabrata. This is a neat and handsome species, and may be cultivated very successfully in a pot of sandy peat. Its flowers are produced in spring, of a fine crimson colour. A native of New Holland.

Kennedya monophylla produces an abundance of blue flowers in racemes; it should be grown in a border of loam and peat; it grows eight or ten feet high. A native of New Holland.

Kennedya monophylla longiracemosa. The same as the last, but its flowers are of a lilac colour.

Loasa lateritia is a plant of rough appearance, but deserves cultivation for its easy culture and showy flowers. It may be cultivated successfully in a pot of rich loam; it blooms all the summer. Introduced from Tucuman.

Lonicera Japonica is an evergreen Honeysuckle, producing a sweet odour, and an abundance of pale yellow flowers; it grows eight or ten feet high, blooming from June to September. It is a native of Japan.

Passiflora filamentosa. This is a neat and pretty species; flowers of a light purple, blooming all the summer; it delights in a rich loam and peat soil. A native of America.

Passiflora incarnata is a free blooming species, the flowers are flesh-coloured. This and the last mentioned species should be cultivated in the border in order to succeed well.

Passiflora kermasina is a small and beautiful species, requiring a warm greenhouse; it delights in a rich loam and peat soil, well drained. Its flowers are of a fine rosy-crimson colour.

Philibertia grandiflora is a neat and curious little climber for a pot; its flowers are greenish-yellow spotted with purple, blooming from May to July; it delights in a rich loam and peat soil.

Tecoma Australis is a pretty evergreen, flowering in profusion in spring, when grown in a rich loamy soil; it requires the border of a warm greenhouse. It is a native of New Holland.

Thunbergia alata may be trained to a trellis three or four feet

high; its flowers are of buff colour, with a purple eye, and are produced all the summer. A rich loam suits it best. The *T. leucantha*, white with dark eye, and the *T. aurantiaca*, of a fine orange with dark eye and large flower, alike deserve a place in every greenhouse.

Tropæolum tricolorum is one of the most beautiful creepers in cultivation: it may be grown in a pot of sandy loam, and be trained to a trellis. To prevent drought injuring its roots, its pot should be placed in a larger one and filled round with damp moss or sand; it flowers all the spring and summer. Introduced from Peru.

Tropæolum brachyceras is a plant of the same habit as the last mentioned, and requires the same treatment; its flowers are yellow, and blooms all the spring and early summer months.

Truro, May, 1840.

ARTICLE IX.

REMARKS ON CLIANTHUS PUNICEUS—VARIETY COCCINEUS.

BY MR. JAMES SOUTHWOOD, MARWOOD HILL, NEAR BARNSTAPLE.

I AM induced to send you a description of the variety "Coccineus elegans," now in great perfection in the gardens at Marwood Hill, near Barnstaple, with a short account of its culture.

Early in the spring of 1837 I raised the plant from a small cutting, and, when well rooted, shifted it into a forty-eight sized pot, and placed it in the greenhouse, where it remained till May in the following year. I then plunged it into the ground against a south wall, where it continued till October, having, in the meantime, attained the height of five feet, and thrown out numerous racemes of flower-buds. Finding, from its rapid growth, that the space allotted for it was too confined, I removed it to a more advantageous site against the house, which I effected with complete success, the plant not sustaining any injury nor stoppage in its growth. In May, 1839, it bloomed profusely, and was the admiration of all who saw it; and again in the months of November, December, and January, and even during the late severe weather, it was not wholly without flower. At this time the countless racemes are fast developing themselves, and await only a more genial atmosphere literally to cover the wall with its splendid pendent scarlet flowers, many of

their clusters measuring from five to six inches in length. It is not a little remarkable, that from those flowers that bloomed in November, two seed pods were produced, which are far advanced towards maturity. This plant measures ten feet in height by ten in breadth, and will probably extend to fifteen in the course of the summer, as it has not ceased expanding all through the winter; and I have no doubt that, if placed in a warm and well-sheltered spot, and protected from frost and cold easterly winds, it may be grown to any size.

I shall be glad to learn that this most elegant and interesting shrub may soon have attracted that general attention which the unrivalled splendour of its flowers, and the graceful delicacy of its foliage, so eminently invite.

Marwood, 10th April, 1840.

It may be further stated, that the natural beauty of the plant is much increased in the specimen above described, by the uniformity of its training, and the luxuriance of its branches, every portion of the space it occupies being nearly covered.

PART II.

LIST OF NEW AND RARE PLANTS.

IN NURSERIES, &c.

1. *ASTER ROSEUS NOVE.* This hardy herbaceous Michaelmas flowering Aster is very far the handsomest we ever saw. It was in fine bloom last autumn in the gardens of the London Horticultural Society. The stems rise to about four feet high, and are crowned with a profusion of fine rose-coloured flowers. It deserves a place in every flower border.

2. *VERBENA TEUCROIDES, var. HENDERSONI.* This fine variety is at the Pine Apple Nursery, Edgware Road. It has the habit of *V. Teucroides*, but has scarlet-coloured flowers. Plants will be for sale early in summer, and will be well worth purchasing.

3. *CRINUM COMMELLINA.* This pretty flowering liliaceous plant is in the stock at the Pine Apple Nursery; we saw it in profuse bloom a little time back. The flowers are white, with a lilac-purple streak down each segment.

4. *ACACIA OXYCEDRUS.* This species is now in profuse bloom, in the greenhouse of Messrs. Chandlers at Vauxhall Nursery. Its fine racemes of yellow flowers give a fine effect at this early season of the year. It is cheap, and well worth possessing.

5. *SOLANUM BETACEUM.* This plant has fruited in the Durdham Down Nursery near Bristol for several years, and is very ornamental. The fruit is

the size and form of a hen's egg, and has a subacid taste; and it is considered likely to form as good an addition to sauces as the tomatoe, having all its succulence, with the addition of a mild perfume.

6. *ARCTOSTAPHYLOS NITIDA* has been raised by seed in the Horticultural Society's garden, Chiswick. It forms an evergreen bush with shining scattered leaves, and short erect racemes of flowers, resembling those of the common *Arbutus*. Should it prove quite hardy, it will be a highly ornamental evergreen.

7. *PHILADELPHUS MEXICANUS*.—A sort of *Syringa*, growing in the Horticultural Society's garden, where it blooms freely. The flowers are large, white. It promises to be a graceful plant, well worthy a place in the shrubbery.

FROM PERIODICALS.

1. *SOPHRONITES VIOLACEA*. (Bot. Reg.) An Epiphyte with violet-coloured flowers.

2. *ONCIDIUM INSLEYI*. (Bot. Reg.) In Mr. Barker's collection, Springfield, Birmingham. The flowers are similar in colour to *O. Papilio*. It is among the finest of the genus.

3. *BROUGHTONIA AUREA*. (Bot. Reg.) In Mr. Barker's collection. The flowers are of a bright yellowish-red colour, very like *Epidendrum vitellinum*.

4. *CHEIRANTHUS OCHROLEUCA*. (Bot. Reg.) A dwarf, hardy, herbaceous plant; flowers yellow, having a delicate fragrance, blooming in the summer months.

5. *HIBISCUS CAMERONI*. (Bot. Reg.) A hothouse plant. Flowers of a dull buff, tinted with rose, very handsome. The specific character in compliment to Mr. Cameron, curator of the Birmingham Botanic Garden.

6. *CROTALARIA UNDULATA*. (Bot. Reg.) A shrubby, greenhouse plant, introduced from Mexico by Mr. Barker. The flowers are large, of a bright yellow, and make a showy appearance.

7. *SOLANUM ROSSI*. (Bot. Reg.) A native of Mexico. It is a greenhouse, shrubby plant, with spikes of pale blue flowers.

8. *WEINMANNIA VENOSA*. (Bot. Reg.) A greenhouse, shrubby plant, a native of New Holland. The flowers are produced numerously, in dense spikes, of a pretty rose colour, which are crowned with purple leaves, the stem being red, and the leaves veined with red; altogether possessing a singularly pleasing appearance.

9. *BILLARDIERA DAPHNOIDES*. (Bot. Reg.) A greenhouse, stiff growing, shrubby plant. The flowers are yellow, striped on the outside with purple.

10. *GESNERIA REFLEKA*. (Bot. Reg.) Very like the handsome flowered *G. faucialis*, and, like all the family, deserves a place in every collection of stove plants.

11. *EPIDENDRUM FALCATUM*. (Bot. Reg.) Flowers yellow.

12. *OBERONIA CYLINDRICA* [Orchidæ]. (Bot. Reg.) Flowers very small, green.

13. *BRASSAVOLA VENOSA* [Orchidæ]. (Bot. Reg.) Flowers, lip white, other parts greenish.

14. *LÆLIA RUBESCENS* [Orchidæ]. (Bot. Reg.) Flowers in terminal scapes, a foot long, white, tinged with pink.

15. *STANHOPEA MACULOSA* [Orchidæ]. (Bot. Reg.)

16. *EPIDENDRUM CRISPATUM* [Orchidæ]. (Bot. Reg.) A beautiful flowering species, the long crisped white labellum giving a fine contrast to the other parts of the flower.

17. *CALOSTEMMA CARNEUM*. Flesh coloured. (Bot. Reg. 26.) Hexandria Monogynia, a bulbous plant, which is a native of Australia, discovered there by

Major Sir Thomas Mitchell, and presented to the London Horticultural Society. The flowers are produced in a close umbel, of twenty or more in each. The flower is about an inch long, on a longish foot-stalk of a fine carmine-rose colour.

18. *CENTAUREA PULCHRA*. Beautiful blue-bottle. (Bot. Reg. 28.) Syngenesia polygamia. Cynaracæ. A very beautiful flowering, hardy annual, growing about a foot high, and blooming freely. Each flower is near an inch and a half across. The radial florets are of the finest bright blue, and the centre of the flower a beautiful rosy-crimson. These being again in contrast with the silvery glittering scales of the involucre give a charming appearance to it. It blooms nearly all the summer; will grow freely in any usual garden soil. It deserves a place in every flower garden. It bloomed in the garden of the London Horticultural Society last season.

19. *DAHLIA GLABRATA*. Smooth dwarf Dahlia. (Bot. Reg. 29.) Asteracæ. Syngenesia Polygamia. A native of Mexico, and has bloomed in the London Horticultural Society's garden. Its habit is quite dwarf, growing to about three feet high; it is quite smooth, and its roots have slender fangs of a uniform size. It blooms during the season the other kinds do. Dr. Lindley states, "there can little doubt that this and *D. scapigera* will give birth to quite a new race of Dahlias, in which dwarfness, so much desired, will not be an accidental deviation, but will be a fixed habit, and, which is very possible, will increase till varieties are secured whose height, when in full bloom, will not exceed a foot. It answers well when treated as a half hardy annual, which is the easiest way of its culture, as by saving the seed every season the old roots need not be preserved.

PART III.

MISCELLANEOUS INTELLIGENCE.

THE HORTICULTURAL FETE.

The first fête for the season was given by the Horticultural Society on Saturday the 16th of May, at the Gardens at Chiswick. The company began to arrive shortly after one o'clock, when the gates were opened. The attendance was not so numerous as on former occasions; but many, no doubt, were deterred from paying their usual visit by the unsettled state of the weather; a fair sprinkling of fashionables was however, present. The rain fell at intervals in heavy showers until the afternoon, when the sun shone out, and lent its lovely rays to the beauty of the gardens, which the rain had made redolent of freshness and sweet odours. The specimens of fruit and flowers exhibited were of the first order. Nothing could surpass in beauty the cacti, azalias, geraniums, tulips, heartsease, and Cape heaths. The manner in which they were arranged and grouped was also admirable. Due effect was given to light and shade. There was no vulgar combination of colours, no repulsive contrast, but all was in excellent keeping, and produced a *tout ensemble* of the most harmonious character. The colours of one of the Cacti were so brilliant as to be dazzling. Too much praise cannot be awarded to the cultivators, for so well carrying out the principles of the beautiful science of floriculture. The fruits exhibited may be truly called magnificent. Some giant Pears and Grapes, and Strawberries of extraordinary dimensions, drew forth general admiration. The specimens of Apples and Asparagus also showed the highest order of cultivation. The new hothouse, which is of great size, and made of cast iron, was filled with exotics, and was itself a picture. The subjoined list will show to whom the Society awarded the prizes:—

AWARD OF THE JUDGES.—No. I.

Pelargoniums.—Gold Banksian, Mr. W. Cock; Large Silver, Mr. Hunt, gardener to Miss Traill; Silver Knightian, Mr. Bromley, gardener to Miss Anderson; N., Gold Banksian, Mr. Gaines; N., Large Silver, Mr. Catleugh; N., Silver Knightian, Mr. Hill.

Herbaceous Calceolarias.—Large Silver, Mr. John Green; Silver Knightian, Mr. W. Barnes; N., Large Silver, Mr. Catleugh.

Shrubby Calceolarias.—Large Silver, Mr. J. Green; N., Silver Knightian, Mr. Gaines; N., Large Silver, Mr. Catleugh.

Seedling Pelargonium.—Silver Knightian, Ed. Foster, Esq.; Silver Banksian, Rev. Mr. Garth.

Seedling Calceolarias.—Large Silver, Mr. Lane.

Tulips.—Silver Banksian, Mr. J. Wilmer.

AWARD OF THE JUDGES.—No. II.

Large Collection of Stove and Greenhouse Plants.—Gold Knightian, Mr. Green; Gold Banksian, Mr. Lawrence; Large Silver, Mr. Redding; N., Silver Knightian, Mr. Davis; N., Large Silver, Mr. Jackson.

Small Collection of Stove and Greenhouse Plants.—Gold Banksian, Mr. Barnes, gardener to — Norman, Esq; Large Silver, Mr. Breece, gardener to — Mills, Esq.; Silver Knightian, Mr. Falconer; Silver Banksian, Mr. J. Barnes; Silver Banksian, Mr. J. Eyre; Silver Knightian, Mr. Pratt.

Cape Heaths, Thirty species.—Gold Knightian, Mr. W. Barnes; Large Silver, Mr. Butcher; Silver Knightian, Mr. Pratt; N., Gold Knightian, Mr. Pamplin; N., Gold Knightian, Mr. Jackson.

Cape Heaths, Six species.—Silver Knightian, Mr. Allnutt; N., Gold Banksian, Messrs. Lucombe and Pluice.

AWARD OF THE JUDGES.—No. III.

Fruit, Miscellaneous Collections of.—Gold Knightian, Mr. Davis.

Grapes.—Silver Knightian, Mr. Wright, gardener to — Rushout, Esq.; Silver Banksian, Mr. Chapman.

Pine Apples.—Large Silver, Mr. G. Leslie.

Peaches or Nectarines, in Dishes of six specimens.—Silver Knightian, Mr. W. Tillery, gardener to the Duke of Portland.

Miscellaneous Articles.—Silver Knightians, Mr. R. Brook, Mr. Knox, and Mr. John Steward, gardener to Lord Ashburton; Silver Banksian, Mr. J. Cockburn, gardener to Lord Mansfield; Silver Knightian, Mr. Wyatt.

AWARD OF THE JUDGES.—No. IV.

Greenhouse Azaleas in Varieties.—Gold Banksian, Mr. Falconer; Large Silver, Mr. Redding; N., Large Silver, Mr. Smith.

Melon-shaped Cacti, whether in Flower or not.—Silver Knightian, Mr. Pratt.

Tall Cacti in Flower.—Large Silver, Mr. Green.

Roses, in Collections.—Silver Banksian, Mr. G. Leslie; N., Large Silver, Messrs. Lane and Co.; N., Silver Banksian, Mr. H. Cobbett.

AWARD OF THE JUDGES.—No. V.

Collections of Exotic Orchidaceæ.—Gold Knightian, Mr. Mylam; N., Gold Knightian, Mr. Rollison.

Exotic Orchidaceæ of Three Species.—Gold Banksian, Mr. Dunsford; Large Silver, Mr. Barnes, gardener to the Marquis of Normandy.

Exotic Orchidaceæ, Single Specimens of New and Handsome Species.—Large Silver, Mr. Dunsford.

Exotic Orchidaceæ, Single Specimens.—Large Silver, Mr. Dunsford; Silver Knightian, Mr. Mylam; Silver Banksian, Mr. Barnes.

Single Plants not in Flower.—Large Silver, Mr. Standish; Silver Knightian, Mr. Mountjoy; Silver Banksian, Mr. Jackson.

Ornamental Plants, whether Old or New, in Flower.—Large Silver, Mr. Brine; Silver Knightian, Mr. J. Barnes; Silver Banksian, Messrs. J. Barnes, Holland, — Alston, Esq., and — Jackson, Esq.

New Ornamental Plants, Single Specimens.—Gold Banksian, Mr. Smith.

QUERIES.

ON ARNOTT'S STOVE.—I am, and have been from the commencement, a subscriber to your Floricultural Cabinet. Being in want of a stove to heat two houses, I was very much pleased with the description of one mentioned in your Cabinet of a previous month, from a correspondent who signs himself a florist. You will greatly oblige me by the favour of his address, that I may obtain further particulars: those I now have are the common brick flues: these with me do not answer, for, when most wanted, I find a great difficulty in getting the fire to burn, and likewise in keeping out smoke. Would you be kind enough to favour me with your opinion of the Arnott and Churk stoves for the above purpose? I have seen advertised an apparatus by Joyce on the hot-water system: the only objection to this is its price, do you know anything about it? An answer will be thankfully received, as soon as convenient, by

*Earl Soham, Woodbridge,
Suffolk.*

A WELLWISHER TO YOUR CABINET.

[We hope our correspondent who sent the remarks alluded to will favour us with his address.—CONDUCTOR.]

ON CULTURE OF BROMPTON STOCKS.—Would you, or any of your numerous readers, be kind enough to give me, through the medium of your valuable Cabinet, a few hints on the culture of the Brompton Stock, of which flower I am a great admirer? An early reply would oblige

May 8th, 1840.

A YOUNG AMATEUR.

ON BURNING TURF FOR PANSIES.—A correspondent will be obliged if some reader of the Cabinet would inform him if turf should be burnt before it is used in a compost for Heartsease, or whether it will be sufficiently decomposed by standing to rot for six or nine months before using.

Wellingborough, April 8th.

H. W.

ON ALTERING THE COLOURS OF DAHLIAS.—I do not recollect reading any account whatever of a method to alter the colours of Dahlias. When the stem has acquired a toughness that it will bear a twist round, so serve it, and tie it twisted secure to a stick well drove into the ground. I have learned something from this method, let others do so likewise.

J. H. F.

ON IXIAS, SPARAXISES, &c.—Some of your readers will be much gratified by an early reply to the following queries:—

1. How can the bulbs of *Ixia* and *Sparaxis* be managed in a greenhouse where artificial heat is not given them, except by means of a hotbed, and that only for a very limited time?

We find them increase rapidly by offsets, but they *never* open their flowers well, and the leaves generally begin to turn yellow before the flower appears.

2. What treatment should be pursued with regard to bulbs newly imported from Brazil?

3. How should the seeds of *Sollya heterophylla* be managed?

We find it will not increase by cuttings; and the seeds, though they seem well ripened, never germinate.

COMMELINA.

ON DAHLIAS.—You will much oblige several of your subscribers here by inserting in the next number of the "Cabinet," the following queries, with your answer thereto.

1. Is Widnall's Conductor the best Dahlia of its class?—[No, we have seen Horwood's Defiance much superior, and when well grown it is decidedly the best.—CONDUCTOR.]

2. Do you consider Glory of Plymouth superior to Dod's Mary, or any other flower in the light-edged class?—[Yes, the petals are rounder, and the bloom altogether more proportionately correct. It cannot, however, always be depended upon.—CONDUCTOR.]

3. I have never seen any account published of the past season of the Cambridge Dahlia show, which I much regret your omission of, as a detail of the

winning flowers at the principal exhibitions gives us an idea of the criterion of their merits. What flower obtained the premium seedling prize?—[We endeavoured to procure the account, but, with our correspondent, we regret we were unable to do so, from some of the parties who obtained prizes failing to furnish the names of the flowers composing their stands. Mr. Widnall's Argo succeeded in obtaining the first seedling prize, but in our estimation HEDLEY'S PENELOPE, which received the second prize, was a considerably better shaped bloom.]

4. How do you define an amateur Dahlia grower?—[A person who does not dispose of (or his servant for him) Dahlia plants for sale in any way, whether to be paid for in money or goods.—CONDUCTOR.]

5. Are amateurs allowed to show in the nurseryman's class; that is, is it not generally considered open to all?—[Certainly not; the title is expressive enough.—CONDUCTOR.]

6. Are not Hero of Wakefield and Springfield Rival one and the same flower?—[There is a slight difference in them, the former being generally larger and lighter, but the distinction is not sufficient to allow their being placed in the same stand.—CONDUCTOR.]

Lancaster.

CHARLES MITCHELL.

DAHLIAS.—You will much oblige me by giving your opinion in the next number of the Cabinet, whether Widnall's Argo or Cox's Yellow Defiance is the best show flower. I cannot afford to purchase the two, and am therefore desirous of having the best.

Boston, Mar. 6, 1840.

H. COOPER.

[We saw six blooms of each at the Stafford Hall show in September last, and our minute of them stands thus.—DEFIANCE, more compact in the arrangement of its petals, and a better centre, also the outline of the flower far superior, forming as near a circle as any Dahlia flower we ever saw. ARGO, a little larger than Defiance, but thinner of petals, and consequently presented an imperfect outline, by an angular formed space between the petals. The colour of Argo was a shade deeper.—CONDUCTOR.]

ON ARNOTT'S STOVE.—I beg leave to ask the Rev. James Browne whether he finds his Arnot's Stove diffuses its heat equally. At the beginning of April I saw a house not above ten or twelve feet long, with the stove at one end, and while the vines immediately over it had formed grapes, those at three feet distance had no appearance of breaking.

Birmingham, May 16.

J. G.

ANSWERS.

ON AWARDING PRIZES AT FLORICULTURAL SHOWS.—In answer to an Old Subscriber, I beg to mention *one* plan adopted by a Society of which I have been a member, and which has been found to answer satisfactorily. The gardener brings cards inscribed severally with the articles for competition, and delivers them to one of the Committee who inserts the list in a book with the sender's name; a member puts the same number on the cards, and they are then placed on the different articles. The Gardener, to prevent disputes, has also a card with the same number delivered to him. After the prizes are awarded, the names of the successful are written on the cards. A book ready ruled thus—

Articles for Competition.	Prizes. 1st. 2d. 3d.	No. on the Cards.	Name of the Sender.

will much assist your correspondent. The prize and number are inserted as the judges award them, the subscriber's name afterwards, by reference to the other book. However, to prevent the trouble of two books, the gardener may be required to bring a list with the sender's name, and these being filed, reference to them will obviate the necessity of a book. It would certainly be rather hard for any one assisting to arrange the plants, or fill up the book, to be prohibited exhibiting for competition, and there must be, in my opinion, a little confidence

placed in his honesty. As to the arrangement of the plants, it must of course be done in separate classes. I should be glad to see another plan that may perhaps be equally successful with less trouble.

Birmingham, May 16, 1840.

J. G.

ON SOIL SUITABLE FOR CAMELIAS.—A Subscriber asks for the best soil to plant Camellias in. I have found the best soil to *grow* them is not the best to *flower* them in. If he wishes to propagate, I would recommend two parts rich loam, one part peat, half part rotten dung, and half part fine sand; with this soil I have frequently had shoots eight to ten inches long, and frequently a second growth during the summer, but the flowers never reach the same perfection as they do with two parts peat, one part loam, and one part sand, but with this soil I seldom get my shoots above two or three inches in length.

J. G.

REMARKS.

ON THE CULTURE OF THE ANEMONE.—Being a subscriber and constant reader of your Floricultural Cabinet, and having derived much benefit from the perusal of the many useful articles contained in it, I now, trusting to your goodness in inserting communications in that work, would beg to offer a few remarks on the culture of the Anemone and the soil best suited for that plant. I shall make a few remarks on the planting of full-grown tubers, and the soil I have found them to succeed best in.

The bed for Anemones ought to be prepared by taking out the soil to the depth of a foot or eighteen inches, and the bottom should then have five or six inches of *thoroughly rotted* cow-dung spread over the bottom. Over this must be put a compost similar to that used for the Ranunculus, or about nine-tenths of well-rotted pasture loam; the top ought to be broken and turned over repeatedly to the sun, till no fragment of the turf can be seen, and the remaining tenth *thoroughly rotted* cow dung. The bed must be so filled with this compost as to stand six inches above the garden level, in wet situations, sloping from the middle down to each side, which it will be convenient to have boarded round. This should be done a few weeks before planting, to give the earth time to settle. I understand (from what I have heard many florists say on the subject) that the method of planting Anemones in broad drills regularly lined on the bed six inches apart, and the tubers at the same distance, is much better than planting them in holes made with a dibble. After planting, the tubers ought to be covered with about two inches of a light sandy soil.

The Anemone may be planted at various times, but I am of opinion that the middle of October is the best time for planting. Mr. Main, in his very useful and instructive work, "The Villa and Cottage Florist's Directory," says that October is decidedly the proper time for planting. He recommends a mellow rich loam as the soil most congenial to this plant. The soil used by most florists (as I have before observed) is similar to that in which Ranunculuses are grown. Maddock prefers a fresh, strong, rich loam. Hogg recommends a fresh loam, with a considerable portion of rotted cow or horse dung for the Ranunculus, and many persons grow Anemones in the same sort of soil. In dry weather, after the plants appear above ground, let the soil be pressed firmly around the plants, because the crowns of the tubers are apt to be injured by continued dry weather.

The autumnal planted tubers ought to be sheltered from frost by hoops or mats, taking care to have the beds fully exposed whenever the weather is mild.

In April or May, should the weather be very dry, moderate waterings should not be neglected, particularly when the flowers come into bloom.

Most persons shade Anemones when in flower. The shading should only be kept on from ten o'clock in the morning till three or four in the afternoon, in order to admit the diminished light of the morning and evening sun.

Stirlingshire, March 13, 1840.

H.

[We shall be glad of other remarks on flowers.—CONDUCTOR.]

ON A SUPERB FLOWERING GERANIUM.—As I know you are anxious for any information with respect to new and rare flowers, and I am myself delighted with

Horticultural pursuits. I cannot (although previous to our May exhibitions) refrain from giving you some description of a *most beautiful Geranium (seedling)*, raised by that clever and industrious florist, J. Nairn, Lower Stoke, Plymouth, Devon. I think it must make some *considerable stir among Geranium growers*. Indeed for perfection of shape I am sure it will. I shall give you its particulars, then judge. The flower is of a fine deep rose ground, with clear centre, having a beautiful crimson-flamed spot with dark lines. *The form is superb, surpassing any of its family yet bloomed*, the under petals being as large as the generality of the upper ones of other flowers. It is of good habit, the plant is not more than fourteen inches high, and throws its bloom well above the foliage. The flower measures two inches and three-quarters across. In fact, I cannot do that justice to its merits that it deserves, but no doubt you may hear more from some abler hand: this is the first of one hundred and fifty yet to open, with I think great prospect of surpassing No. 1., which has been named Nairn's Success. If you are desirous of hearing further, I will endeavour to describe any other that may be worth your notice.

[We thank our respected correspondent for the information communicated, and shall be much obliged by other remarks on Mr. Nairn's seedlings, or any other fine kind of Geranium.—CONDUCTOR.]

ON PLANTS WHICH BLOOM BEST WHEN GROWN IN OLD MORTAR AND MOSS.—In an article by Mr. G. Fielder, he remarked that he had succeeded to bloom some kinds of plants much better when grown in old mortar and moss than in soil: the following are the kinds succeeded with, viz. Agapanthus, Aloes, Arctolises, Cactuses, Euphorbias, Calandrinia discolor, and Crassula falcata.—CONDUCTOR.]

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 attention 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. I. and II., 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. II. and Vol. III., 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 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 be regularly 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 William, 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.

REFERENCE TO PLATE.

No. 1. REGALIA. No. 2. PERTINAX. No. 3. PREMIUM. These very beautiful *Ranunculuses* are seedlings raised by Messrs. Tyso and Son, florists, Wallingford, Berks. Each is of first-rate merit, and deserves a place in every collection. Messrs. Tyso and Son deserve the thanks of every admirer of this modest, lovely flower for their industry in raising the immense number of seedlings they have done. The result of many years' labour has been crowned with singular success in the produce of many of the handsomest *Ranunculuses* grown, and for the three additional beauties, figures of which we now give, we sincerely hope they will meet with that encouragement they are entitled to from a floricultural public.



1 *Verbena Hastata* 2 *Botanica Thellusonii* 3 *Lord Nelson* *Strawberry*

THE
FLORICULTURAL CABINET,

JULY 1st, 1840.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.

A VISIT TO THE TULIP GARDENS AT HAARLEM, MAY, 1840.

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

HAARLEM is thirty-six miles from Rotterdam, and is the garden of Holland. I travelled from Rotterdam to the Hague, a distance of nearly twenty miles, without seeing a bed of Tulips, or even a dozen blooms together. The cultivation of flower-roots is confined to Haarlem and its neighbourhood.

The soil on the New Port side is a dark, sandy, heath-coloured soil, such as is used for Ericas, full of silvery, shining particles; and on the Blooming Dale side it cannot be called anything else but sand, such as would be used in England for building purposes. The gardens in this neighbourhood adjoin the ridge of sand-hills called the Downs, which serve as a barrier to the sea, and were left years ago when the sea receded to some distance. I understand that the sea is nearly two miles from these hills. On the Palace side (I believe it is called Dordt Straat) it is a little better. The gardens are, from the flatness of the country, intersected by dykes, which run from the canals, and serve in some instances to convey manure in small boats to the land. This filters through the porous sandy soil and serves to nourish the bulbs, so that they may be said to grow in soil and water. It is impossible for almost any country to equal them in bulbs. Nature combined with art has done much for them.

The Hyacinth ground is prepared some months previous to planting, and, from what I saw, I should say they put two-thirds cow-dung

into the soil (if it may be so called). All flower gardens are manured in like manner—cow-dung being plentiful.

It is a mistaken idea that the Dutch are great admirers of flowers. This I do not consider to be the case, as they do not in the least seem inclined to purchase new varieties at all from England. The answer they make is "we cannot sell to Englishmen." Their trade is a mere matter with them of pounds, shillings, and pence. Any one presuming that they are extensive raisers of Tulips will be much disappointed; I did not see a single seedling coming to maturity. All they had in the way of breeders were blooming roots, and but few good ones were to be seen. With Hyacinths it is far different; the little as well as the large cultivator devote a plot of ground to seedlings, and a considerable quantity of seed is annually sown. The seedling as well as the blooming roots of Hyacinths are generally grown in beds of thirty to one hundred yards long. One florist told me of one who had no less than sixty thousand large and small roots of the *Bouquet tendre*, or *Waterloo*. The reason is plain: Hyacinths, &c., are in demand, whilst Tulips are not so, so that they pay particular attention only to that which is likely to produce most money.

Each variety of Tulips is grown together in beds of twelve to fifteen yards long, and of some varieties (*Ambassador d'Hollande* particularly); it is not uncommon to see a large bed of them containing at least one thousand bulbs, all in fine condition and of the best strain.

There are few beds protected as they are in England. I only saw four, and one of them contained a great number of common flowers, such as *Surpasse la Cantique*, whilst the same individual had very fine varieties growing in various beds unprotected.

The Dutch are principally indebted to their neighbours for the fine sorts they possess. They are not on the most friendly terms with each other, and will not introduce you to any other collection, unless it happens to belong to a relative or intimate friend, who has what the other does not possess; and after you have made your selection from the previous one. It is extremely difficult for a stranger to find out the various small collections, where he probably will get them cheaper than in the large ones. In this I was particularly fortunate, having letters of introduction to Englishmen who had been resident there some years.

I saw in one collection, considered the finest in Europe (as to extent and number of the old varieties), upwards of one hundred Louis XVI. in bloom. There were in three beds fifty-five, all grown together, as follows: in two beds, twenty feathered ones in each, and in the other fifteen flamed ones; the remainder were scattered in other beds in fours and sixes together in a row. It has been generally asserted that there no Louis breeders and never were, it having bloomed originally in a broken state. This is false; I saw four blooming in one collection, and five in another. They originally belonged to the late Mr. Schneevogt, a descendant of the celebrated Voerhelm, and were, at his death a few years ago, sold with the Louis above-mentioned. The scarcest variety is David. I saw it very fine. The whole number of blooms I saw did not exceed twelve. In looking through the various collections, the following were what I considered as likely to suit my own neighbourhood, or in fact any other. The petals of nearly all, when I arrived home, were in such a state that I could not in many instances say whether they were Roses or Byblomens, or feathered or flamed.

Black Tabbart, flamed byblomen.	Mausolée, bizarre.
Bacchus, flamed rose.	Reine du Brésil, bizarre.
Cerise Incomparable, feathered rose.	Duc de Bordeaux, fine flamed byblomen.
Evêque d'Amboise, flamed byblomen.	Cerise à Belle Forme, flamed rose.
La Victorieuse, byblomen.	Triomphe du Monde, flamed byblomen.
Bailluwinne or Cupido, byblomen.	Prince de Tulipes, byblomen.
L'Admirable.	Reine de Tulipes.
Professor, fine feathered byblomen.	Belle Chinoise, flamed byblomen.
Incomparable, fine ditto.	Européenne.
Reino de Mauritania, byblomen.	Olympia.
Rose Supérieure.	Triomphe Tricolor.
Bailluw Van de Merwede, byblomen.	Brûlante Eclatante, flamed rose.
Princess Wilhelmina, flamed rose.	Chevalier, bizarre.
Violet Impérial.	Ambassador d'Hollande.
Bienfait Incomparable, fine feathered byblomen.	Violet Brun, flamed byblomen.
Incomparable Daphne, fine ditto.	Prince Elie, ditto.
Prince William IV., flamed rose.	Grotius, fine feathered byblomen.
Rosy Monty.	La Belle Narine, ditto, stained bottom.
Grand Roi de France, flamed rose.	Camuse de Craix, fine flamed rose.
La Délicatesse, flamed byblomen.	Sans Egal, flamed rose.
Rose Précieuse.	Lilard Violet, feathered byblomen.
Reine de Sicile, fine feathered rose.	Emperor Charles, feathered bizarre, stained bottom.
Mademoiselle Angloise.	Nectar, byblomen.
Comte de Vergennes, feathered rose.	Reine du Monde, fine feathered byblomen.
Cerise Manon, rose, fine	

Pierrot, feathered byblomen.

Andromeda, bizarre.

Magna Mater Florum, bizarre.

La Belle Nanette, extra fine ditto.

Catafalque, very fine.

Clio, flamed rose.

In this list there are some old faces, but, as they were fine, I was tempted to purchase, although I possessed a stock of them.

In London I visited several fine collections, particularly Mr. Groom's. Amongst his breeders was broke a fine feathered byblomen, superior to any other flower in his collection, and a Polyphemus, extra fine feathered, and one flamed. Prince Albert is a very pale yellow ground coloured flower, neither white nor yellow, possessing very fine properties, but not to be compared to his byblomen.

There were some fine Pompes Funèbres (or, as I think it will turn out, Catafalque flamed,) as well as many others, the names of which I did not take down at the time, as I purposed to have gone down the day following had the weather been favourable.

England, after all, may challenge any country for good and new varieties of Tulips. She has left them all behind, and will maintain her superiority.

ARTICLE II.

ON THE TREATMENT OF THE CLEMATIS SIEBOLDII.

BY T. B. P., AN UNDER GARDENER, ROHAMPTON, SURREY.

ON the perusal of the Miscellaneous Intelligence in the April number of the Cabinet, I observed one of your numerous correspondents soliciting the favour of some one who could inform him of the best mode of cultivating that justly-admired plant, the Clematis Sieboldii, on which I beg leave to offer these few remarks, not presuming to lay them down as which no gardener should deviate from, but which, if followed, I am certain will give the greatest satisfaction.

As soon as the plant has done flowering, I gradually withdraw its supply of water, so as only to give it sufficient to keep it alive, keeping it thus until I wish to start it growing again. I start it about the month of October, with a gentle heat of sixty degrees, at which heat I allow it to stay for about a month. I then shake it out of the pot, and divest it of a portion of its roots. I then repot it in the same-sized pot; by so doing I find it causes it to make a

greater quantity of roots than if potted with its ball entire. The compost I make use of is three-fourths of old turf, with equal quantities of decomposed horse-dung and peat earth, cut up with a spade; let it be well blended together, and allowed to stay at least twelve months before it is used, frequently turning it over. In potting, great care should be taken respecting the drainage of your plant; for if the water does not pass off freely, the leaves become yellow and fall, and ultimately your plant dies. The drainage I make use of is an oyster-shell, just to cover the hole in the bottom of the pot; I then place some rough turf over it. By draining thus I find a great advantage, for the water not only runs through, but the plant roots in it and grows vigorously, and when the plant is next shifted there is no broken pots to take from the bottom of the plant to break its roots. In my opinion plants receive a far greater check by the drainage being taken from them than by their being shifted. In watering, I make use of a little manure water occasionally, for it causes the plant to keep a good colour and grow strong; in pruning I use the knife but little, for I have invariably found that when the plant has been cut too hard that it breaks weak and dwindling, consequently there are but few blooms; but I should have remarked that after the plant is removed from the stove I place it in the greenhouse, there leaving it to grow.

I have a plant treated precisely according to the rules I have here laid down, only a cutting of last spring twelvemonth, covering a trellis of at least from sixteen to eighteen feet in circumference, with at least one hundred and fifty blooms open upon it at this time.

Should you consider these remarks worthy of insertion they are quite at your service; and should there at any time be any thing that I can throw the least light upon, I shall be proud in so doing.

ARTICLE III.

ON THE METHOD OF WARMING STOVES.

BY A NORTH BRITON.;

MANY attempts have lately been made by Mr. Knight and others, to dispense with the bark bed, or other bottom heat; and the argument mainly insisted on is, that it is in imitation of nature, there

being no such thing as a natural hot-bed. This appears to me to have been asserted without duly considering that plants in a hot-house are in a situation altogether different from what they would be out of doors in their native climate, particularly with regard to the state of the atmosphere in which they grow.

Air is an elastic fluid which expands by heat, therefore all particles of it, as they become warm, unless they meet with some external impediment, will ascend till they reach a stratum of similar density to themselves; the heat will consequently always be greatest at the radiating or reflecting surface: hence the earth at any given place, unless cooled by evaporation or some accidental cause, will be warmer than the air immediately above it, and this again will be warmer than portions of the atmosphere more remote: this is very sensibly felt in places at any considerable variation of altitude. Now, although, for all horticultural purposes, owing to the comparatively small height of any vegetable production, the temperature at the same time and place may be considered as uniform, still the lower parts of the plants are, if anything, rather in the warmer medium. Moreover in tropical climates, the earth, from the great power of the sun's rays, and their continued action, becomes heated to a considerable depth. Now in all horticultural stoves the heat will be found to vary by a law exactly the reverse of this which obtains in nature. Here the heated particles, being intercepted in their ascent, and confined by the glass roof, the top of the house, as practical men know well to be the case, will always be warmest, and the temperature will rapidly decrease towards the bottom, and nearly in a ratio proportionate to the degree of heat maintained; hence the necessity for a permanent source of heat at the bottom, not to keep the root warmer than the rest of the plant, but merely to obviate its being in a colder situation. A mild bottom heat accordingly is always found in practice to succeed best. For the same reason, unless the plants are kept very near glass, a great circulation of fresh air, and consequent waste of heat, is generally found necessary, as, unless the heated air at the top was thus suffered to escape, the leaves and extremities of the plants, being attracted by the warmer medium above them, would grow towards it faster than the lower parts could supply nourishment, and thus would become what gardeners term drawn. The necessity for change of air, except in reference to temperature and moisture, cannot well be accounted

for on any other principle, as I believe it has been satisfactorily ascertained, that vegetable life does not destroy the vital properties of air in the manner that animal life does : but that, although the air is much altered by it at one period of the day, it is restored to its former state in another, and on the whole no material change is permanently produced. Mr. Knight, the scientific president of the London Horticultural Society, condemning the bark bed, except for the purpose of striking young plants, has had a house constructed for the purpose of growing stove plants without bottom heat, and from time to time has given a detail of his proceedings and results. In one of his papers he states, that the plants which stood on the hottest part of the flues, immediately above where the fire entered, grew stronger and more luxuriantly than the rest. This is exactly as might have been expected, for the plants, standing above the source of the heat, would have the benefit of first receiving the heated particles of air in their ascent, and consequently would be in a situation more congenial to nature than those in other parts of the stove where their leaves would be in a warmer stratum of air than their stems and roots, though this was also diminished as much as possible, by always keeping the plants in contact with the glass, and was effected by placing the pots on pedestals of loose bricks.

But in the construction of a house for this purpose, the circumstance that the heat under glass increases with the distance from the ground should always be kept in view. Possibly if any method could be found of agitating, or, as it were, mixing the inclosed air, it might counteract this tendency to an undue accumulation of heat above the plants. The flue probably had best be made to traverse the house several times at a level below the pots, but on no account must it be piled up against the back wall, which in all cases is evidently an injudicious construction, throwing additional heat into a part of the house, which without it has a tendency to exceed the rest in temperature.

May 13, 1840.

ARTICLE IV.

ON THE MANAGEMENT OF ORANGE TREES.

BY A NORTH BRITON.

THE Orange is a native of Mexico, Italy, Spain, and other warm climates ; they produce fruit annually in great quantities. They were first introduced into this country as a variety of greenhouse plant. Gentlemen have built houses for their cultivation, but the crops of fruit are far short in comparison with those on the vine, which causes me to think the culture of Orange trees is in an infant state in this country. I have paid particular attention to the subject.

Those engrafted or budded, I observe, come sooner to a bearing state, but are never such healthy trees as the seedlings. I find I can bring a seedling Orange tree into bearing in six years. I have observed the young seedling trees to put out thorns at the base of the leaf ; and so long as these appear on the young wood no fruit can be looked for. As the tree is in a luxuriant state, my method to stop that vigorous growth is this : mix half strong brown loam, half peat or heath earth, mixed well together, with a little gravel, to keep the soil from binding to the roots ; have pots proportionable to the size of the tree, put them into this soil, which I consider rather poor, but keeps them in good health, and in humble growth ; by this management they come sooner to a bearing state. I keep them in that soil till I see blossom appearing, which may be looked for when no thorns push out of the young wood ; after that I give them larger pots, then take compost half strong brown loam, half vegetable mould, break some bones small, mix some in the compost, and put some in the bottom of the pots, which feeds the roots a great length of time, and drains off superabundant water. After the fruit is set I have observed the decaying flowers to be in a corrupt state at the base of the fruit, and cause it to drop of ; when the fruit is set, I take all the decaying flowers carefully off. In pruning Orange trees, great care must be taken not to shorten any young wood, as the flower generally appears at the extremity, only cutting out any cross useless wood. I have known some hew down their Orange trees every year. By this treatment it is impossible for their trees to bear fruit, for in spring they bring forth strong thorny wood, and are no nearer bearing than when one year old. The brown scale is very troublesome to Orange trees,

and retards their growth, and makes them have a sickly, unhealthy look ; if the trees are not kept clean of that insect, little good can be expected where they are. I keep my trees perfectly clear of that insect with three dressings in one year, by taking soft soap half a pound, flour of sulphur a quarter of a pound, nux vomica half an ounce, add to these six quarts of hot water, keep stirring till the soap is dissolved ; when cold, take a sponge, and wash every leaf on the upper and under sides ; three days after I find the insects all dead. I take the engine and throw pure water all over them, which washes all clean off ; the trees look healthy and keep clean for about three months. The temperature of an Orange-house should not exceed fifty or fifty-five degrees in winter. In summer I give the trees frequent artificial dews, by throwing water over them with the engine, which, I think, causes the fruit to be thinner in the skin than it would be in a dry heat ; the watering greatly adds also to the health and beauty of the trees.

May 15, 1840.

ARTICLE V.

ON THE MANAGEMENT OF THE AURICULA.

BY A NORTH BRITON.

THE *Primula Auricula*, according to the Linnæan system, belongs to the fifth class Pentandria, and the first order Monogynia, and is a native of Switzerland, which is a mountainous country. The *Auricula* is found growing in its natural state near the bottom of those large mountains called the Alps, where the soil is fruitful ; but, on account of the extreme height of these mountains, the sun never shines on the *Auricula*, and many other plants, for several months ; and we learn from geography the ungenialness of the seasons in that country. The natives are often reaping on one side of the mountain while they are sowing on the other. Every cultivator of plants ought to be acquainted with the climate of which the plant that he has in charge is a native, and the nearer he approaches its nature the greater will be the success. My method of cultivating the plant in question is as follows :—Take them when they are offsets from the old plant, in August,

which time I have found to be better than any other season both for the old and young plants, for I have observed, when the plants begin to grow in spring, that they put forth suckers at the time, which weaken the mother plant, and also the flower.

It has been a regular practice to take these suckers from the old plant when in full blow, some time in May. I have found that to be very hurtful to them, as the roots are disturbed more or less, which causes an immediate decay of the flowers; that being a season they require frequent waterings. If a wound has been made with a knife, the plant will sometimes rot and die; and young plants taken off in the month of May, having the summer months before them, I have frequently seen them flower in autumn, or too early in spring; for these reasons I displace all the suckers whenever they make their appearance, unless I want to increase some of my favourite kinds. After the flowering is over, I let two suckers push out on the kinds wanted, and let them feed by the mother plant till about the middle of August, at which time I take them off; the plant has thus time to get established in the pot before winter, and the old plant gains strength again. My compost for Auriculas is a quarter of well decayed cow-dung, a quarter well decayed horse-dung, a quarter of vegetable mould, one-eighth of turf soil that has been heaped up for some years, and turned over to the action of the weather, and one-eighth of river sand, all well incorporated. I have pots of three inches diameter inside, and put the offsets in these pots with the above compost. Place them in a cool airy situation, having only the morning sun, give them frequent waterings, and let them remain in that place till the month of October or beginning of November, by that time they will have made good roots. I then remove them to a sheltered situation, where they may enjoy the full sun in the winter months, and plunge the pots in sawdust, which prevents the frost hurting their roots. I put two or three light frames over the whole of my stock at this season, to protect them from snow or heavy rains, but I expose them to the free air, day and night, when the weather is mild, only drawing on the lights in severe weather. Water should be used sparingly at this season, the moisture rising from the ground is sufficient when they are in a dormant state. About 1st of March the plants will begin to grow; after that time they should be moderately watered once a week till they show for flowering, which is generally about the middle of April:

they should then be removed to a cool airy place, having only the morning sun; displace all suckers at this time. If thought requisite, put a little of the compost round the top of the pots, being careful not to put it over high, which will rot the leaves; place the frame over them again till the flowers are going off; water freely when in flower, and give them plenty of air, which will prolong their flowers. In August, the plants in the three inch pots are examined; if requisite give them pots four and a half inches; but I do not recommend repotting more than once in two years with old plants. If they keep healthy, clear away dead leaves at all times.

ARTICLE VI.

ON THE TREATMENT OF CACTI,

BY Z.

(Extracted from the Gardener's Journal by Clericus.)

HAVING become a subscriber to the new paper, the Gardener's Journal, I find it contains, among others, a very useful article on Cacti; I have therefore transcribed it, and forward it for insertion in the Cabinet.

“The collection and cultivation of the numerous species of the genera comprised in the natural order Cactaceæ during the last few years, has introduced so many new and singular forms of vegetable life to the notice of our present spirited patrons of botany, that they have become nearly as fashionable as the generally more showy and nearly as grotesque family of Orchidaceæ. Over the latter they possess the advantages of requiring less room, and being of more easy culture; while the beauty and profusion of the flowers of some of the most common render it no easy task to name their superiors in splendour.

“To the London amateur they recommend themselves not only by the above advantages, but by many others. Perhaps there is no natural order of plants containing so many species, which would stand the heat and dust of a London garden or paved court as the order now under consideration. A great many species of the genera Mammillaria, Echinocactus, Cereus, Opuntia, &c., would no doubt grow well in these confined spaces, or in the sunny windows of the house, while the windows and shelves in any room where a moderate

fire was kept, would form very good winter quarters for them. In fact, if room were an object during the winter months, they might be turned out of their pots, the mould shaken from their roots, and be then hung up in bags in any dry room secure from the frost. The principal thing to be guarded against besides would be too much wet in the autumn.

“The culture of this order divides into two or three distinct methods of treatment. For *Cereus grandiflorus*, *C. serpentinus*, and their allies, the rafters of a stove, and not the back wall (most frequently their station), is the most suitable trellis, where they can extend to a proper size to flower, and can have the full benefit of sun and air. The different species of *Epiphyllum*, *Cereus speciosissimus*, and others of the order most nearly allied in habit, require a richer compost, more water, and an autumn ripening out of doors. The melon shaped Cacti want an airy situation, and every ray of sunshine our climate is capable of affording them. They all require thorough drainage, great attention in watering, full exposure to light, and a hot and dry exposure, to ripen and fit them for flowering.

“To see the way in which the most of this order of plants are treated in the generality of gardens, one would hardly suppose them possessed of sufficient beauty or interest to render them worthy of any care. Even the *Epiphyllums*, always in request for their splendour, are generally found fagoted up to a stick big enough for a hedge-stake, the surface of the mould covered with moss, and if the mould is examined, it will be very often found to be nearly half lime rubbish. *Cereus grandiflorus* is seldom seen in a healthy state, and still less frequently in a flowering state. Surely these fine plants are worth a little more attention. A tithe of the trouble generally lavished on egg-plants, amaranths, and also on many newer introductions of less beauty, would grow these plants in good style, and give greater satisfaction to most plant fanciers.

“A good mellow loam, white sand, and potshreds broken small, are the principal requisites for a compost for most of these plants. Manure of any kind must be sparingly used, except for the *Epiphyllums*, and other free growing and flowering sorts. But even with them perhaps an occasional watering with liquid manure would be preferable, as any crude manure in the compost would be liable to retain moisture too long, and retard their ripening in the autumn. A

sufficient drainage of potshreds to secure the plants against the least chance of damp, and allow water to pass freely through, is of the first importance, and, broken small and mixed with the compost, is of great use to the Melocacti and all the smaller species. Another point not sufficiently attended to is, to be very careful not to overpot even the strongest growing sorts. In fact, this is the besetting sin of many gardeners with almost every description of plant.

“When the Epiphyllums have done flowering, well thin out the least promising of the old and young wood, pot them into a good loamy compost, with less sand and more manure than for any of the other species, and set them into a moderately warm house until they begin to grow freely. An airy but warm greenhouse will soon be the fittest place for them, as, if kept too close, no wood of any strength will be produced. As soon as they arrive near their strongest growth, reduce their allowance of water gradually, and when they feel firm and have nearly done growing, put them out in a hot place, exposed to as much sun and air as possible, but protected from wet. They will not shrivel for a long time, and those that do will be generally found to be deficient of a proper supply of roots, and not properly ripened. Plants thus managed will be found to flower well, and can be forced or retarded so as to produce their flowers for a considerable length of time.

“Melocactus, Echinocactus, and Mammillaria must have a poorer soil and very complete drainage. A little well-decayed leaf mould, good loam, and, if the loam is too stiff, some nice sandy peat and a good supply of sand and small potshreds will be found as good a soil for these plants as can be had. Their roots seem very fond of growing among small potshreds, and where growing freely, soon mat themselves altogether among the drainage. Some cultivators cover the surface of the mould round the plants with small stones or white sand to prevent damp. Both plans are unsightly and unnecessary if a proper quantity of sand and potshreds are mixed with the loam. When it is necessary to shift any of these plants, if in soil they do not seem to like, shake them out, clear away all decayed roots, being particular not to injure the heel or stem of the plant. Put plenty of drainage at bottom, and also mixed with the compost; spread the roots as well as possible, not allowing them to cross or mat more than can be helped; fill and fix the mould firmly to support the plant, water over head

to clean away any mould accidentally fallen on the crown, and set the plants on a stage or shelf as near the glass as possible, and over the flue as well, if practicable. A good heat, close house, not too damp, and moderate moisture to the roots; if this shifting is done in April or May, will make such an alteration in the course of a little while as will rather surprise those who have been used to see these plants as they are too often to be found in collections. As they get established, free air and a full exposure to the sun, and a gradual diminution of water, will prepare them for passing the winter in good order. On the first increase of heat, and application of water in the spring, those large enough to flower may be expected to do so strongly and perfect their seeds. But many species seem to be nearly always in bloom, and of some of the *Mammillarias*, the flowers are so inconspicuous as frequently to escape detection until their berries appear.

“*Opuntia*, *Pereskia*, and *Rhipsalis*, will be found to succeed under similar treatment, the *Pereskias* and more leafy *Opuntias* requiring more water and richer soil than the others, if the intention is to grow the plants to their full development.

“Seed is produced freely by many species, and it is also generally to be found among the spines of imported *Echinocacti* and *Mammillarias*. It should be sown thinly in well-drained pots and very sandy loam, or in a covering of white sand, above such loam, kept moderately moist and in a very warm part of the house. Such will soon vegetate, and must be carefully guarded against all stagnation of water or sign of damp. They will grow freely, and no hurry need be made in potting them off, as, when very small, they are apt to get squeezed too much, and thus checked.

“The grafting of Cacti is so easily performed as to hardly require notice. Some, from entertaining an idea that the *Echinocacti* and *Opuntii* do not produce a sufficiency of roots to grow freely, have produced such unnatural monsters, that they have rather tended to lessen than encourage the cultivation of this grotesque family of plants. Fancy a middling sized *Echinocactus Eyriesii* stuck on a wiry stem of *Pereskia aculeata*, like a drum-stick stuck into the pot; A writer on this subject informs us that the graft will soon begin to form roots and send them down the *Pereskia*, which they may be encouraged to do by y ng moss round the stock, or they may be left to themselves to add to the singularity of the monster. This

fact destroys the necessity of grafting in this way; the *Pereskia* is incapable of furnishing a sufficient supply of nutriment to its graft, and the graft is obliged to use its own power of emitting roots to escape starvation. *Epiphyllum truncatum* does well on *Pereskia*. *E. speciosum* grafted on strong plants of *Cereus speciosissimus*, turned out in conservatories, grows and flowers freely, making a fine contrast with the flowers of its stock, both expanding at the same time. *E. Jenkinsonii* and its allies also do well in the same way, but being strong growers are not so fit, nor do they require a foreign stem to lift them into notice. *Opuntia Brasiliensis*, *Cereus hexagonus*, and other strong growing sorts, are used as stocks, but it is a pity to cut off the head of a plant for the purpose of producing a monster incapable of exciting pleasurable sensations, and thus impairing the enjoyment of the garden." Z.

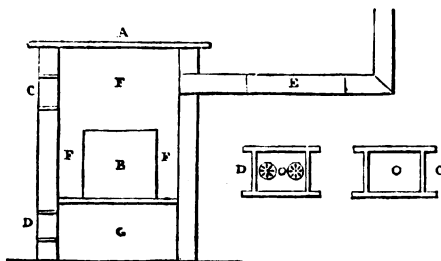
ARTICLE VII.

ADDITIONAL OBSERVATIONS ON ARNOTT'S STOVES.

BY A FLORIST, BOSTON, LINCOLNSHIRE.

I SENT you a few months ago a slight account of my brick Arnett's Stove; in the next number a correspondent has taken notice of it, and says, "He is perfectly convinced, it is not adapted for such a purpose, (but hopes he will be excused saying so.)" Now I beg to assure him that I excuse him with the greatest pleasure, but hope in return he will excuse me if I again state that I am perfectly satisfied with the result of last winter's experience. In the number for May, a correspondent wishes to have a detailed account of the mode of constructing the stove, which I have great pleasure in giving. As I cannot see that any end would be gained by giving my address, I shall refrain from doing so at present. The stove is two feet by seventeen inches square and three feet high, built of common bricks, edgeways, each course tied together with iron hooping to prevent the stove bursting. The pan B is of fire-bricks, with a grating at the bottom. There is an open space, F, between the fire-place and the outer wall, which, together with the slow radiation of the bricks, prevents the plants being too hot at a foot distance. The door, C, is air-tight, and fits better without hinges; the lower one, D, is the same, but with valves to regulate the supply of air; the chimney, E,

is quite horizontal as far as the back wall, and only projects ten inches from the top of the house ; the draught is good notwithstanding. The chimney is of round tiles (used for draining) which fit one within the other. As to not heating the house sufficiently, the only difficulty I had was to keep the house sufficiently cool ; besides, the stove can be made of any size. I afterwards, as an experiment, made a bark bed round it, through which the heat spread equally. The consumption of fuel is small, and the small cinders riddled out of ashes suit best ; the expense of building and materials does not exceed 20s. or 25s. If further particulars are required I will give them with pleasure.



- | | |
|--|--------------------------|
| A. Cast iron top. | E. Chimney. |
| B. Fire place. | F. Open space. |
| C. Door with frame for supplying fuel. | G. Ash-hole. |
| D. Door with valves and ash-hole. | H. The regulating valve. |

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

1. *ODONTOGLOSSUM MACULATUM*.—Yellow and brown. Orchidæ. Gynandria Monandria. (Bot. Reg. 30.) Imported by George Barker, Esq., of Springfield, and has bloomed in the rich collection of that gentleman. The plant has much the habit and appearance of an *Oncidium*. The sepals are green outside, and of an olive colour within. The petals are of a fine golden yellow, spotted and marked with a blood colour. The flowers are produced on a pendant racemes, each blossom being about three inches across. It is a very interesting and beautiful flowering species.

2. *SOLANUM CRISPUM*, Wavy Solanum. (Bot. Mag. 3795.) Solanæ. Pentandria Monogynia. A native of Chili, and proves to be quite hardy in this country. A plant has been growing at the seat of James Hunter, Esq., in Argyleshire, trained in the open air to a south aspect wall, where it stood the

severe winter of 1837 and 1838. It is added, "that it is hardly possible to conceive any thing more beautiful than the numerous purple corymbs of flowers, backed by the copious dark foliage." It blooms nearly all summer. The flowers are fragrant.

3. *GREVILLIA DUBIA*, Dubious. (Bot. Mag. 3798.) Proteacæ. Tetrandria Monogynia. Mr. Cunninghame sent seeds of it from New Holland to the Botanic Garden, Edinburgh, where the plant has been raised and bloomed. The flowers are of a beautiful rose colour, and blooms a long time during the summer. Its neat habit, having foliage like a *Pimelea*, and profusion of flowers, render it a pretty plant for the greenhouse or conservatory.

4. *VEVBASCUM TAURICUM*, Taurian Mullein. (Bot. Mag. 3799.) Scrophularinæ. Pentandria Monogynia. Sent from Germany by Dr. Graham to the Edinburgh Botanic Garden. The stems grow erect, two feet high, branching. The flowers are on terminal racemes a foot long, of a fine purple colour, shading down to the centre with nearly black. It is a pretty flowering, showy border plant.

PART III.

MISCELLANEOUS INTELLIGENCE.

HORTICULTURAL GARDENS, CHISWICK.

The second exhibition for the season was held on Saturday, under more favourable auspices than the preceding one; the day being fine and attractive for company. In all, 11,712 persons visited the gardens, exclusive of the exhibitors; and Prince Albert and his suite visited the grounds during the time when the judges were engaged in their duties. The number of fellows present was but 374; and 17,200 tickets have already been issued by the society, of which 2,500 were used on the first day, and 3,363 remain unused. As far as the sale is concerned, the profits of the exhibitions are likely to exceed those of any previous year.

The following was the award of the judges:—

No. I.

- Pelargoniums*, gold Banksian, Mr. Cock, Chiswick.
 Do. (Amateurs) large silver, Mrs. Lawrence.
 Do. (Nurserymen) gold Banksian, Mr. Catcleugh, Chelsea.
 Do. large silver, Mr. Gaines.
Herbaceous Calceolarias, large silver, Mr. Wm. Barnes.
 Do. silver Knightian, Mr. Green, gardener to Sir E. Antrobus.
 Do. large silver, Mr. Catcleugh.
Shrubby Calceolarias, large silver, Mr. Green.
 Do. (N.) silver Knightian, Mr. Gaines.

Miscellaneous.

- Seedling *Pelargoniums*, silver Knightian, E. Foster, Esq., Clewer.
 Do. silver Banksian, Rev. Mr. Garth.
 Do. do. Mr. Alexander Poutey, nurseryman, Plymouth.

No. II.

Large collection of stove and greenhouse plants, gold Knightian, Mr. Butcher, gardener to Mrs. Lawrence.

- Large collection of stove and greenhouse plants, gold Knightian, Mr. Green.
 Do. gold Banksian, Mr. Redding, gardener to Mrs. Marryatt, Wimbledon.
- Small collection of do., gold Banksian, Mr. Green.
 Do. do. do. Mr. Bruce, gardener to Boyd Miller, Esq., Mitcham.
 Do. do. large silver, Mr. James Barnes, gardener to Sir Herbert Jenner, Chiselhurst.
 Do. do. do. Mr. Falconer, gardener to Archdal Palmer, Esq., Cheam.
 Do. do. do. Mr. W. Barnes, gardener to — Norman, Esq., Bromley.
 Do. do. silver Knightian, Mr. Pratt, gardener to William Harrison, Esq., Cheshunt.
 Do. do. do. Mr. Watson, gardener to John Wells, Esq.
- Cape Heaths, 30 species, gold Banksian, Mr. W. Barnes.
 Do. large silver, Mr. Butcher.
 Do. N. gold Knightian, Mr. Pamplin.
 Do. large silver, Mr. Jackson.
- Cape Heaths, 6 species, gold Banksian, Mr. R. May, gardener to E. Goodhart, Esq.
 Do. large silver, Mr. Allnutt.
 Do. do. Mr. Pratt.

No. III.

- Miscellaneous collections of fruit, gold Knightian, Mr. J. Davis, gardener to Sir Simon Clark.
 Do. gold Banksian, Mr. E. Davis, gardener to Lord Boston.
 Do. do. Mr. Vare, gardener to O. F. Meyrick, Esq.
- Grapes, large silver medal, Mr. Thomas Sellers, gardener to — Watkins, Esq., Pennoyre.
 Do. silver Knightian, Mr. Chapman, Vauxhall.
- Pine Apples, large silver, Sir John Guest, Bart.
 Do. do. Mr. Mann, gardener to J. Bishop, Esq.
 Do. do. Davis.
 Do. do. M'Onan, gardener to E. Forster, Esq.
 Do. do. Vare, gardener to O. F. Meyrick, Esq.
- Peaches and Nectarines, in dishes of 6 specimens, large silver, Mr. Vare.

Miscellaneous articles, silver Knightian, R. Brook, Esq., Apples; Mr. Leslie, May Duke Cherries; Mr. Myatt, for a new seedling Strawberry; and Mr. Pratt, gardener to W. Harrison, Esq.

No. IV.

- Melon shaped Cacti, large silver, Mr. Palmer, Norfolk-place, Shacklewell.
 Tall Cacti, in flower, large silver, Mr. Falconer.
- Rhododendrons in pots. N. silver Knightian, Mr. Smith, Norbiton.
- Roses in collection, gold Banksian, Mr. Milne, gardener to C. J. Chauncey, Esq.
 Do. large silver, Rowland Alston, Esq.
 Do. silver Knightian, Mr. G. Leslie.
 Do. silver Banksian, A. Rowland, Esq.
 Do. N. gold Banksian, Messrs. Lane and Sons, Great Berkhamstead.
 Do. large silver, Messrs. Wood and Son, Maresfield.
 Do. Mr. Cobbett, Woking.
 Do. Mr. Hooker, Brenchley.
 Do. Mr. Paull, Cheshunt.
 Do. Knightian, Messrs. Dennis.

No. V.

- Collections of exotic Orchidacea, gold Knightian, Mr. Mylam, gardener to Sigismund Rucker, Esq.
 Do. large silver, Mr. Clark, gardener to Valentine Harris, Esq.
 Do. N. gold Knightian, Messrs. Rollison, Tooting.
 Do. three species, gold Banksian, Mr. Mylam.
 Do. large silver, Mr. Dunsford, gardener to Baron Dimsdale.
 Do. silver Knightian, Mr. W. Barnes.

Single specimens of new and handsome species, large silver, Mr. Mylam.

Silver Knightian, Mr. Clarke.

Exotic Orchidaceæ, large silver, Lady Rolle.

Do. silver Knightian, Mr. Dunsford.

Do. silver Banksian, Mr. Bruce.

Single plants not in flower, large silver, *Grevillea robusta*.

Silver Knightian, *Doryanthes excelsa*, Mr Dunsford.

Ornamental plants, whether old or new, in flower.

Large silver, *Stephanotis follicularis*, Mr. Butcher.

Silver Knightian, a *Pelargonium*, Mr. Cock.

Silver Banksian, *Erica Globosa*, Mr. R. May.

Do. *Hydrangea*, Mr. Clark, gardener to Sir James Limond.

Do. *Styledium fasciculum*, Mr. Mountjoy.

Do. *Azalia Danielsiana*, Mr. Smith.

Do. *Lechenaultia formosa*, Mr. W. Barnes.

Do. *Elichrysum humile*, Mr. James Garner.

New ornamental plants, single specimens.

Silver Banksian, *Fuchsia sanguineum*, Mr. Standish.

Silver Knightian, *Alstromeria Ehreboldtii*, Mr. Scott.}]

Miscellaneous subjects, silver Banksian, Cockscombs, Mr. J. Barnes.

In the crowded state of these gardens on the days of exhibition it was always a difficult task to review the specimens, but this was never more felt than on the last occasion, as the assemblage of visitors who were congregated round the gates before the period of opening, soon filled the over thronged tents. There were, however, novelties of admiration, which rendered this exhibition, in many respects, unsurpassed. The Geraniums were particularly conspicuous, and the collection of Mr. Cock, of Chiswick, very rich in choice plants, was closely followed by that of Mrs. Lawrence. Mr. Catcleugh gained the first prize for nurserymen, and the exhibition of Mr. Gaines was very fine. The first exhibited *Sylph*, *Rienza*, *Climax*, *Discount*, *Coronation*, *Lady Murray*, *Spadilla*, *Prima Donna*, *Joan of Arc*, *Victory*, *Lineatum*, and the *Beauty of Ware*. The seedlings of Mr. Foster were named the *Nymph* and the *Beauty*, and that of the Rev. Mr. Garth, was the *Bridesmaid*. The *Calceolarias* were fine specimens, and in beautiful condition of flower and growth. The two large collections of Mrs. Lawrence and Mr. Green followed each other so closely that an enumeration of the specimens will be the fairest criterion of their respective merit. Mrs. Lawrence's contained the following:—

Two *Euphorbia splendens*, *Mahernia pinnata*, two *Rondeletia speciosa*, two *Dracophyllum gracile*, *Calcommia pulchra*, two *Cuphea Melvillea*, two *Erythrina*, *Poivreza coccinea*, a seedling *Fuchsia*, *Swainsonia coronilifolia*, *Tropeolum tricolorum*, *Sprengelia incarnata*, *Boronia divaricata*, a *Clerodendron*, *Gloxinia Caulescens* and *Violacea*, *Ixora Rosea*, *Ardisia crenulata* and *humilis*, *Erica ventricosa superba*, *Stanhopea grandiflora*, *Polygala oppositifolia*, and *P. speciosa*, *Statice foliosa* and *arborea*, *Pimelia sylvestris*, *Kennedy monophylla*, *Metrosideros lanceolata*, *Digitalis sceptrum*, 2 *Pimelia decussata*, and 2 of a dark variety, 2 *Anigozanthus Manglesii*, *Campanula laciniata*, *Psoralea aculeata* and *pinnata*, *Turneria elegans*, *Ipomea Sellowii*, 2 *Cactus speciosa*, 3 *Cactus speciosissima*, 2 *Cactus Ackermanii*, *Peristeria pendula*, and a species of *Catasetum*.

Mr. Green's collection contained—*Rondeletia speciosa*, *Thunbergia aurantica*, 2 *Ixora coccinea*, *Euphorbia splendens*, *Fuchsia fulgens*, *Sinningia velutina*, 2 *Cactus Jenkinsonii*, 2 *C. Ackermanii grandiflora*, 2 *C. speciosissimus*, 1 *C. Malinsonii*, and 4 seedlings, 2 *Manettia cordifolia*, *Gompholobium polymorphum*, *Diplacus punicus*, *Polygala oppositifolia*, *Alstromeria tricolor*, 3 *Calceolarias*, *Eriostemon buxifolia*, *Mirbelia reticulata*, *Cosmelia rubra*, 2 *Boronia serrulata*, 3 *Lachenaultia formosa*, *Mahernia bipinnata*, 2 *Pimelia decussata*, *Statice puberula*, *Helychrisum superbum*, and *H. philiformis*, with the following heaths, *Erica vestita*, *coccinea*, *bergeana*, *humea*, *Coventryana*, 4 *ventricosa superba*, 2 *v. carnea*, 2 *perspicua nana*, 1 *Westphalingia* and *ovata*, with *Epacris Hetronea*.

In the small collections the rivalry of the competitors was displayed in the production of some very valuable plants. Mr. Green's collection, which gained a gold Banksian, contained *Chorozema ovata*, *Helichrysum superba*, *Oncidium hexuosum*, *Erica tricolor*, *Cactus speciosa*, and *Euphorbia splendens*. The col-

lection of Mr. J. Barnes, which gained the large silver medal, contained *Gloxinia superba*, *Calanthe veratrifolia*, *Thunbergia aurantica*, *Ardisia crenulata*, *Pimellia decussata*, and *Erythria Crista galli*; that of Mr. Falconer consisted of *Euphorbia splendens*, *Polygala opositifolia*, *Lachenaultia formosa*, *Cactus speciosissimus* and *speciosa*, and *Alstromeria tricolor*; and of Mr. Barnes, of Bromley, *Calanthe veratrifolia*, *Colomella rubra*, *Ixora coccinea*, *Gompholobium polymorpha*, and *Boronia serrulata*.

In Cape heaths the collections of Mr. Barnes and Mrs. Lawrence were very *unique*. Mr. Pamplin's collection was very superb, consisting of the thirty-two following varieties:—*Erica reflexa alba*; *Vestita fulgida*, and *rosea*; *translucens rosea*; *Ovata*; *Welmeriana*; *Ventricosa*, *carnea*, *globosa*, *coccinea*, *hirsuta*, *alba*, *tenuiflora*, *rosea*, and *superba*; *Tortiliflora*, *densa*, *bergiana*, *stillata*, *splendens*, *Humea*, *odorata*, *pendula*, *perspicuana mutabilis*, *intermedia*, *brevifolia*, *mutabilis*, *hybrida*, *suaveolens*, *Beaumontia*, *pubescens*, and *rubella*. The smaller collections of Mr. Allkutt and Mr. Pratt contained well grown plants.

We also observed some of the fruits of the *Musa Cavendishii* from Mr. Pratt. In melon-shaped Cacti the collection of Mr. Palmer was rich, as were the tall Cacti in flower, consisting of *speciosa*, *speciosissima*, *Jenkinsonii*, *Ackermanii* major and minor, from Mr. Falconer. The varieties of roses were very great, that of Messrs. Laue and Son containing no less than 300, and of Mr. Wood's, 180. Mr. Rivers also exhibited a stand of about 30 varieties, which were not for competition. Mr. Mylam's collection of exotic Orchidaceæ consisted of *Phalænopsis amabilis*, *Ærides odorata*, *Vanda teres*, *Stanhopea quadricornis*, *Brassia maculata*, *Maxillaria staphelioides*, *Cirrtræa viridipurpurea*, *Oncidium guttatum*, *O. pulvinatum*, *O. pubes*, and *O. flexuosum*. His three specimens were *Saccolabium guttatum*, *Ærides odoratum*, and a variety of *Oncidium flexuosum*, and the new and handsome specimen was *Ærides affine*. Near these we also noticed a splendid plant of *Ærides odorata*, with twenty-four spikes of bloom, which did not, however, obtain a prize. The plants exhibited by Mr. Dunsford were also rare. The remainder of the specimens for which prizes were awarded bear their names, and it may be sufficient to say that they were in general well grown and good plants.

Amongst specimens unrewarded by prizes must be noticed the many fine collections of Heartease from the following growers:—Messrs. Colley, Hill, and Lane; Mr. Howe, gardener to W. J. Smith, Esq., of Uxbridge; Mr. Yeeles, Bathford Cottage; Mr. Francis, Hertford; Mr. Gillingham, gardener to Mr. Cotton, of Acton-green; Mr. Tinsley, of South Mians; Mr. Thompson, gardener to G. Byng, Esq.; Mr. Henchman, Edmonton; Mr. Kemp, Teddington; Mr. Bridges, Hampton; Messrs. Brown, of Slough, and Mr. Thompson, of Iver. Mr. White, gardener to Sir William Alexander, exhibited some fine balsams; and from the gardens of John Jarrett, Esq., of Camerton court, near Bath, was a fine plant of *Iris bicolor*, standing two feet high, and with very rigid foliage. Mr. Moutjoy exhibited a fine *Gloxinia hybrida*, with soft blue flowers, and *G. violacea*, and a new *Anagallis*, much larger than *Phillipsii*.

ROYAL SOUTH LONDON FLORICULTUAL SOCIETY.

The second exhibition for the season was held on Tuesday, in the Surrey Zoological Gardens. Perhaps on no previous occasion were the resources of the exhibitors laid under heavier contribution, and the show was one of the first that has ever been held in these grounds. The following were the prizes awarded:—

CLASS I.—AMATEURS, MEMBERS ONLY.

1. For the best Pelargoniums, in collections of 6 varieties, large silver medal, Mr. Lidgard.
2. For the second best do., middle silver medal, Mr. Edmonds.
3. For Roses, in collections of 12 varieties, in bunches, to be exhibited in the grower's boxes, middle silver medal, Mr. Burrup.
4. For the second best do., small silver medal, Mr. Walton.
5. For Calceolarias, in collections of 6 varieties, middle silver medal, Mr. Edmonds.

6. For *Ranunculus*, in collections of 12 varieties, large silver medal, Mr. Burrup.
7. For the second best do., middle silver medal, Mr. Headley.
8. For the third best do., small silver medal, Mr. Fyffe.
9. For Heartsease, in stands of 24 varieties, large silver medal, Mr. Bowker.
10. For the second best do., middle silver medal, Mr. Edmonds.
11. For the third best do., small silver medal, Mr. Fyffe.
12. For the fourth best do., small silver medal, Mr. Walden.
13. For the best collection of cut flowers, middle silver medal, Mr. Davis.

CLASS II.—GENTLEMEN'S GARDENERS, ENTERING IN THEIR OWN NAMES.

14. For the best collection of miscellaneous plants, not to exceed 36 pots, (Orchideous plants excluded,) large silver medal, Mr. Coutts.
 15. For the second best do., middle silver medal, Mr. Sadler.
 16. For the third best do., small silver medal, Mr. Atlee.
 17. For the fourth best do., small silver medal.
 18. For Pelargoniums, in collections of eight varieties, large silver medal, Mr. Gard.
 19. For the second best do., middle silver medal, Mr. Johnson.
 20. For the third best do., small silver medal.
 21. For Calceolarias, in collections of 8 varieties, middle silver medal.
 22. For the second best do., small silver medal.
 23. For Roses, in collections of 18 varieties, in bunches, to be exhibited in the growers' boxes, middle silver medal, Mr. Atlee.
 24. For the second best do., small silver medal, Mr. Coe.
 25. For Ericas, in collections of 8 varieties, middle silver medal, Mr. Curtis.
 26. For the second best do., small silver medal.
 27. For Heartsease, in stands of 36 varieties, middle silver medal, Mr. Foster.
 28. For the second best do., small silver medal, Mr. Fisher.
 29. For the best collection of cut flowers, middle silver medal, Mr. Sadler.
 30. For the second best ditto, small silver medal, Mr. Cooper.
- Entrance to Non-members, 7s.

CLASS III.—NURSERYMEN, MARKET GARDENERS, AND FLORISTS.

34. For Pelargoniums—in collections of twelve varieties, large silver medal, Mr. Catcleugh.
 35. For the second best ditto, middle silver medal, Mr. Gaines.
 37. For Calceolarias—in collections of twelve pots, middle silver medal, Mr. Catcleugh.
 38. For the second best ditto, small silver medal, Mr. Gaines.
 39. For Ericas—in collections of twelve varieties, large silver medal, Mr. Pamplin.
 41. For the best collection of twenty-four ranunculus, middle silver medal, Mr. Lockhart.
 43. For Pinks—in collections of twelve varieties, middle silver medal, Mr. Norman.
 44. For Roses—in collections of thirty varieties, in bunches, to be exhibited in the growers' boxes, middle silver medal, Mr. Paull.
 45. For the second best ditto, small silver medal, Mr. Young.
 46. For Heartsease—in stands of fifty varieties, middle silver medal, Mr. Henchmann.
 47. For the second best ditto, small silver medal, Mr. Thomas.
 48. For the best collection of cut flowers—to be exhibited in the growers' boxes, middle silver medal, Mr. Denyer.
- Entrance to Non members, 7s.

OPEN TO ALL CLASSES.

50. For the best specimen plant, large silver medal, Mr. Dowson.
51. For the second best ditto, middle silver medal, Mr. Dickson.
52. For the third best ditto, small silver medal, Mr. Dickson.
53. For the fourth best ditto, small silver medal, Mr. Pamplin.
54. For the best collection of Orchideous plants in flower, large silver medal, Mr. Coutts.

55. For the best Pine-apple grown in England, middle silver medal, Mr. Andrews.

EXTRA PRIZES TO MEMBERS OF THE SOCIETY.

Offered by Mr. Groom, to Amateurs.

62. For Ranunculus—in twelve varieties, small silver medal, Mr. Burrup.

Offered by Mr. Denyer, to Amateurs and Gentlemen's Gardeners.

63. For the best eight Pelargoniums, large silver medal, Mr. Gard.

Offered by J. Burrup, Esq.—Open to all Classes.

64. For the best collection of Pelargoniums, large silver medal, Mr. Catcleugh.

EXTRA PRIZES.

Specimen plants, Mr. Atlee and Mr. Bunney; Cacti, Messrs. Chandler and Son, Vauxhall; Pinks, Mr. Smith; Roses, Messrs. Dennis, Mr. Paull, and Mr. Seldon; miscellaneous plants, Mr. Paice, Mr. Massey, and Mr. Bourne; seedling Pelargoniums, Mr. Catcleugh.

Amongst the objects most conspicuous were the excellent collections of Pelargoniums from Mr. Gaines and Mr. Catcleugh, particularly considering the successful results of their exhibition at Chiswick, on the previous Saturday. Mr. Denyer's collection of cut flowers was very fine, and occupied a large space on the centre table of one of the tents, but there was a rival of no mean pretensions in Mr. Davis of the amateurs' class, who exhibited a large collection of Roses and Geraniums. Mr. Pamplin's Heaths were also very fine, and Messrs. Chandler's collection of Cacti was one of the most unique and attractive in the grounds.

Mr. Ansell exhibited some fine standard Geraniums, trained in a tree-like form, and Fuchsia Buschii and Standishii. The roses from Messrs. Dennis of Chelsea, and Mr. Paul of Cheshunt, contained some very fine varieties; and Mr. Ivery of Rye-lane, Peckham, exhibited three new seedling Geraniums, Verbena Barnsii, pulcherrima, and rubra elegans. Amongst the flowers we must not omit the fine flower of Mr. Groom's Pæony. The collections of Ranunculuses from Mr. Brown, of Clapham, and Mr. Norman, of Woolwich; the Geraniums from Mr. Paice, of Walworth, and a fine large seedling Cactus from Mr. Bunney, between Ackermanii and speciosissimus. We were happy to see the zeal of the Committee well repaid by a most numerous attendance.

LONDON HORTICULTURAL SOCIETY.

AT THEIR ROOMS, REGENT STREET.

JUNE 16.—Dr. Henderson, V. P., in the chair. The presents since the last meeting were a description of British Guiana, by Mr. W. H. Schernburgek: Observations on the climate, soil, and productions of British Guiana, by Dr. Hancock; Transactions of the Horticultural Society of Berlin, 1st part of 15th vol.; and a Theoretical Account of Gardening, by A. F. Lenz, chief gardener to his serene highness the Elector of Hesse, from the author. There had been added to the Library, by purchase, the second part of the Genera Plantarum: and Nos. 1 and 2 of the German Gardener for 1840.

Edward Fyffe, jun., Esq., of Hanover Park, Peckham, and Robert Frederick Gower, Esq., were elected fellows.

Dr. Lindley announced that, at the exhibition on Saturday, there were awarded seven gold Knightian, 11 gold Banksian, 31 large silver, 20 silver Knightian, and 12 silver Banksian medals, and that the grounds were attended during the day by 11,712 persons, exclusive of exhibitors.

As usual on the first meeting after an exhibition, the specimens in the rooms were not very numerous. The first object noticed was a new variety of seedling strawberry, in pots, raised at Swanston in the Isle of Wight, and exhibited by Messrs. Forrest and Hill, of Kensington. It was described as a good grower as free a bearer as Keane's seedling, and also hardy, whilst the fruit was stated to be as highly flavoured as Myatt's pine strawberry. In the last Dr. Lindley,

differed, but the deficiency in taste might be owing to the fruit having been forced too freely.

There were exhibited from the Madame Melanie de Cornolera, of 56, Upper Marylebone-street, various paintings in oil and water colours, Tillandsia, and several other species of plants. From Mr. Bateman were several interesting varieties of orchidaceous plants. There were three spikes of *Saccolabium guttatum*, a plant which varies much in the colour and size of the flowers, and it is stated by Mr. Bateman, that there are in India, as many varieties as there are of the *Epidendrum cochleata* in America. There was also *Ærides odoratum*, a plant exhibited in great beauty at the exhibition at the gardens, with flowing racemes; the plant being a native of the damp woods of India, and requiring much moisture. *Epidendrum alatum*, a plant described by Mr. Bateman, as the sweetest of the sweet, which perfumed the air with its grateful odour; the flower not being of a good colour, but of a dingy yellow or brown, none of those of this class which have an agreeable scent being striking to the eye. There were also, in the same collection, *Maxillaria atropurpurea*, a new species of *Maxillaria* and of *Epidendrum*.

Mr. Groom exhibited a flower of the Chinese Pæony, from *P. grandiflora*, a variety known in gardens as *P. vestita*. The bloom is not so large as that shown at the South London Floricultural Society.

Mr. Lumsden, gardener to H. Beavan, Esq. exhibited twelve sorts of very fine shrubby *Calceolarias*; *Erica ventricosa* *pregnans*, *superba*, and *carnea*; and *Clematis Sieboldii*, an admirable object of decoration, elegantly twined in this instance.

From the society's gardens were several *Fuchsias*, amongst which was *Fuchsia fulgens*, a first-rate specimen; *F. Thompsoniana*, *F. cylindracea*, and five hybrids, produced by intermixing *F. fulgens* with some Chilian varieties. Some of these were very fine, and equally brilliant with *F. sanguinea*; they were named *F. Standishii*, *stylosa* *conspicua*, *pendula* *terminalis*, *sanguinea* and *multiflora* *erecta*. There was *Stanhopea venusta*, from Mexico, a grotesque and grand orchideous plant, and also *Broughtonia sanguinea*, one of the oldest *Epiphites* abundant in Jamaica. but seldom seen in good health. It bears the climate of a sitting-room well, and is very suitable for this situation.

FLORICULTURAL CALENDAR FOR JULY.

The general index given in our last February number should be looked through, and it will suggest to our readers what particular plants and culture now require attention, some of which might otherwise be neglected.

GREENHOUSE PLANTS.—Oranges, Lemons, &c. will require particular attention in dry weather, in order to supply them with water whenever they require it: those pots or tubs that have not lately been top-dressed with fresh earth, should now be done, by removing the old soil to the depth of three or four inches, and replacing it with new; it will be of great service in forwarding the growth of the new set fruit, and also greatly invigorate the plants. About the middle or latter end of the month, begin to bud them upon stocks raised from the kernels of their fruit, that was sown in the spring of three years preceding; those plants that have too great a crop of fruit upon them, should now be attentively thinned. In dry weather, the plants belonging to this department in general should be duly and daily supplied with water, as the earth in the pots will now dry very fast, and require often to be moistened. Those plants that may now require larger pots may still be removed into such, using proper compost. All the plants should be kept clear from decayed leaves, &c., and the surface of the pots from weeds, loose litter, &c. &c. Still continue to propagate by cuttings or otherwise, any required kind of plants, as before directed.

PLEASURE GROUND, FLOWER GARDEN, &c.—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, and supporting those with sticks that require it; they will bloom well in August and September.

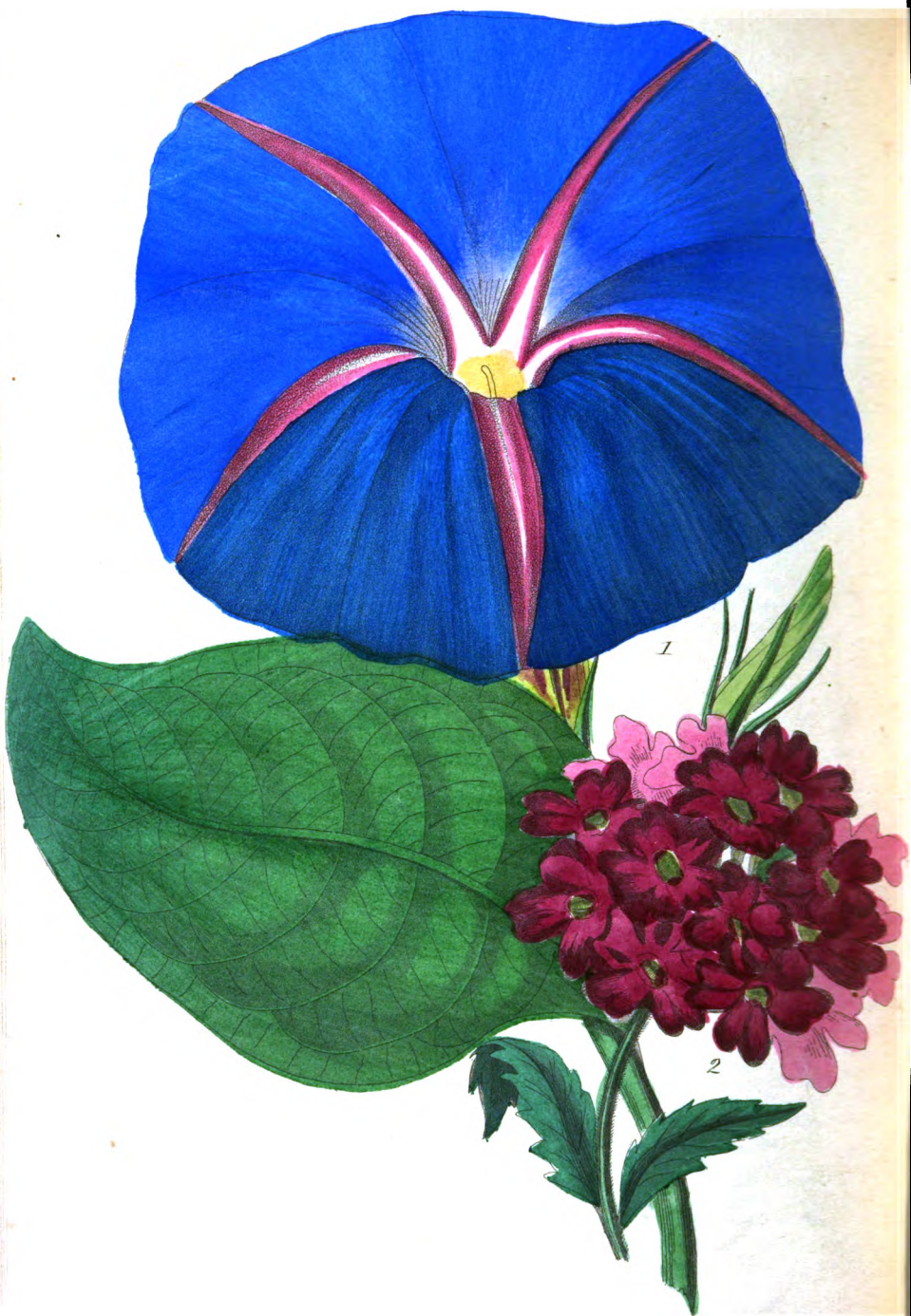
Tender annuals may now be turned out into the flower borders; they should be refreshed at least once a day with water, and if the sun is very powerful they will require to be shaded, till they have taken fresh root; those that remain to flower in pots must be frequently supplied with water, repotting, &c. as they require it. Finish transplanting perennial and biennial plants sown in spring. Double Sweet Williams should now be laid. Those Carnations in pots require particular attention 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 joints 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, or sprinkled with tobacco water. Transplant seedling Auriculas and Polyanthuses, and keep them in a shady place. Pansies may still be propagated by slips of the young shoots; the seed should be sown either in pots or borders, in a shady place, and well supplied with moisture. All sorts of Roses (with the exception of the China and its varieties) should now be budded. Many sorts of bulbous rooted plants, as Ranunculuses, Tulips, Anemones, &c., which will now be past flowering, and their leaves decayed, should be taken up, well dried, cleaned, and the offsets separated, and put in a cool, airy place, till the planting season again commences. The double scarlet Lychnis, and such like plants, should be propagated by cuttings. Geraniums may now be increased 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. Mignonne now sown will bloom well in September. Pelargonium cuttings should now be put in, so as to have well-established plants for blooming next year, or for growing in next year, so as to prepare them for extra specimens for the year following.

REFERENCE TO PLATE.

PORTULACCA THELLUSONII.—This very beautiful *annual* has bloomed in the London Horticultural Society's Garden. It grows about a foot high, and blooms nearly all the summer. When we saw it, it was in brilliant bloom, showy and pretty. We judge it will require a similar treatment to the other Portulaccas. We saw plants of it flourishing in the Pine-Apple Nursery last Autumn, grown in pots in the green-house; but in a dry situation open to the sun, as a rock-work, or under a south wall, Dr. Lindley states it thrives freely. The best compost for it, the Dr. observes, is old lime rubbish and well rotted dung or decayed leaf mould. It deserves a place in every collection.

VERBENA BUISTII.—This is far the handsomest of the light-coloured Verbenas. The heads of the flowers are large, the plant shrubby, blooming profusely, and of so beautiful a rosy pink colour, as to render it a most desirable variety. We saw a plant of *Verbena Hendersonii* at the Pine-Apple Nursery some time back. We were informed that it had the habit of *Verbena teuroides* in form of flowers, and that they were scarlet. It was not any of Messrs. Hendersons who informed us, and we are sorry that any mistake occurred in the matter. It appears Mr. Buist had sent over another kind with the *V. Hendersonii*, which has brilliant scarlet crimson flowers, and an impression had gone forth that the *V. Hendersonii* was the kind. The latter sort is now in bloom at the Pine-Apple Nursery. The flowers are of a fine purple-crimson. It is a free bloomer, and in the way in its heads of flowers to *V. Arranana*.

LORD NELSON PANSY.—This singular edged variety was raised by Mr. James Burley, (see advertisement in the present number,) Florist, Limpsfield, near Godstone in Surrey. Pansies in general have not done well this season, but the blooms Mr. Burley sent us were of very good form.



1. *Ipomoea Learii*; 2. *Vertena Hendersonii*.

THE FLORICULTURAL CABINET,

AUGUST 1ST, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

OBSERVATIONS ON KEW BOTANIC GARDEN.

COPY of the REPORT made to the Committee appointed by the Lords of the Treasury in January, 1838, to inquire into the Management, &c. of the ROYAL GARDENS, by Dr. *Lindley*, Professor of Botany, who, at the request of the Committee, made an actual Survey of the BOTANICAL GARDEN at *Kew*. Printed by Order of the House of Commons in May, 1840.

THE garden is situated on the south side of Kew Green, bounded partly by the walls of the royal forcing and kitchen garden, and partly by what is called the pleasure-ground of Kew Palace. It is reported in the official returns to occupy 15 acres, of which a part is arboretum, and the remainder filled by stoves and green-houses, borders of herbaceous plants, spaces left for the arrangement of green-house plants in the open air in summer, offices, yards, &c.

The arboretum contains many very fine specimens of hardy exotic trees and shrubs; but the plants are too much crowded; they are mostly marked with labels, numbered, and referring to a private catalogue in the garden.

The collection of herbaceous plants appeared to be inconsiderable. A certain number were marked with their names written on painted sticks; others were unnamed; no systematical arrangement was observable, with the exception of grasses, of which there is an extensive collection named.

The stoves and green-houses have been built, with two exceptions, in the neighbourhood of each other, in an irregular manner, and, apparently, from time to time, as occasion arose for successive additions. Some of them are old, but in general they are in pretty good repair. They may be described as follows:—

1. A palm stove, 60 ft. long, containing, among other things, some fine old palm trees planted in the ground.

2. A stove, 50 ft. long, filled with a miscellaneous collection of stove plants.

3. A stove, 60 ft. long, with two small tanks for water plants, occupied by a miscellaneous assemblage of stove plants.

4. A small span green-house, 40 ft. long, with a miscellaneous collection of small New Holland and Cape plants.

5. A dry stove, 40 ft. long, in two compartments, filled with succulent plants.

6. A green-house, 60 ft. long, chiefly filled with fine specimens of Cape of Good Hope and New Holland plants, among which are some noble *Banksias*.

7. A double propagating pit and hospital, 35 ft. long, with cuttings under bell glasses and sick plants in one division; ferns, orchidaceous plants, and some other valuable specimens in the other.

8. A green house, 80 ft. long, containing small Cape of Good Hope and New Holland plants.

9. A "Botany Bay" house, 110 ft. long, crowded with magnificent specimens of New Holland and other plants, especially the former.

10. An old stove, reported to be the first house erected in the garden, 110 feet long, in three divisions; one containing noble specimens of succulent and other plants; the second, a stately *Zamia pungens*, palms, &c.; and the third, a miscellaneous set of green-house plants, together with a few forced flowers for nosegays.

Many of those houses have brick pits attached to them on the outside, and there is a damp pit for raising seedlings in. All the houses are heated by separate fires, and great inconvenience appears to result from the soot produced by so many chimneys.

The first thing to remark upon the specimens in the houses just described is, that they are excessively crowded, and some of them

are out of condition from this circumstance. In general, however, the plants, especially those from New Holland, are in excellent health, clean, and well attended to; the general appearance of the collection was, moreover, very creditable. The second subject of observation is, that a great many plants have been newly labelled, with their names written on painted sticks, especially in the houses Nos. 2. 5. and 10., but that the principal part of the collection is otherwise unnamed. There is, moreover, a very considerable quantity of small young plants in pots, many of which would be valuable for distribution.

In the pleasure-ground is a fine old orangery, 130 ft. long, easily heated by the fires. It is filled with orange-trees, araucarias, New Holland and other plants, many of which are of great size.

In another part of the pleasure-ground, adjoining the arboretum, there has been recently erected an architectural green-house, 82 ft. long, 42 ft. wide, and 28 ft. high; a heating apparatus warmed by twelve fires, buried in the vaults of the building, having been only just completed.

There is also in the garden a clerk's office for the transaction of business, and stabling for the horses employed in this establishment, and that of the forcing and kitchen garden adjoining.

The director-general has a house near the garden, and a small dwelling is provided for one of the foremen.

So far as the mere cultivation of this place is a subject of observation, it is due to those who have charge of it to say that it does them credit, considering the crowded state of the houses, and the inadequate funds allowed for its support.

It is impossible to speak of the general management in similar terms. It has always been maintained as the great botanical garden of this country, and, whether as a private or as a public establishment, it was the duty of the officer intrusted with its administration to render it effective to the extent of his means as a botanical garden, that is, as a garden of science and instruction; yet no kind of arrangement (one of the first features in a botanical garden) has been observed; no attempt has been made, till lately, to name the multitudes of rare plants it comprehends, and thus to render it a place of public utility; no communication is maintained with the Colonies, nor any other thing done, so far as can be discovered, to fulfil the objects of its

institution, except to raise the seeds which government collectors and other persons have profusely contributed, and then to take care of the plants.

It is admitted that there is no classification observed in the garden.

What names are to be found in the garden have been furnished by Mr. Smith, the foreman, and the director does not hold himself answerable for them. This was most particularly inquired into, and most distinctly avowed; so that by far the most difficult part of the duty of the principal officer, a duty on the perfect execution of which the credit and utility of the garden essentially depends; a duty which can only be executed properly by a man of high scientific attainments, aided by an extensive herbarium and considerable library; this most important duty is thrust upon a foreman, paid small weekly wages for cultivating plants, who, whatever his zeal and assiduity may be (and in this case they have been such as to deserve the greatest praise), has no sufficient means of executing such an office. A considerable number of names have been very recently affixed to the plants; and Mr. Aiton is so anxious to declare his opinion of their utility, that he has written the following letter upon the subject:—

Royal Botanic Garden, Kew, February, 22, 1838.

Sir, To correct any misunderstanding as to my opinion of naming plants in the garden, I take this opportunity to state, that, for the advantage of the visitors generally, as well as for the instruction of the gardeners in employ, I consider each individual species should be distinctly and carefully labelled with the ascertained scientific name, &c. I am, &c.

To Dr. Lindley.

(Signed) W. T. AITON.

That no communication is maintained with colonial gardens is apparent from the garden-book of deliveries, an abstract of which, from the year 1805, is annexed. It will be seen from this document, that since the year 1830, the only deliveries to colonial gardens, or in aid of the British government, have been one to the garden of New South Wales, and one to Lord Auckland, when proceeding to his government in India. Mr. Aiton states that all such applications have been complied with, but that the garden cannot be saddled with the expense of fitting up boxes for exportation. It appears, however,

that the principal expense of such trees is defrayed by the Board of Works. It is well known that a great desire is felt in the Colonies to procure plants from this country; it is equally well known that applications to other gardens for such assistance are extremely common; it is therefore singular that what happens so frequently elsewhere should so seldom happen in the Botanical Garden of Kew.

Visitors are unreservedly admitted to the garden daily, except on Sundays, and Mr. Aiton deserves credit for having exercised his power, as director-general, in order to secure this privilege to the public. [In no garden round the metropolis have we found equal attention to accommodate the visitors, and give whatever information is possessed, by Mr. Smith, or those acting under him.—CONDUCTOR.]

A supposed difficulty in obtaining from this garden any of the duplicate plants to be given away, has been the subject of a great deal of public discussion for many years; and attention having been called to it by the Committee, very particular inquiries have been made into the truth of the common opinion. Mr. Aiton states that in this matter he has acted upon his own judgment, and by virtue of his authority as director-general of the royal gardens; that he has always considered the Botanical Garden a private establishment; that the only rule which he has observed in giving away duplicates has been, to assist those who were likely to aid the garden in return; and that, in his opinion, it is desirable that the garden should be conducted upon the most liberal plan, consistent with the safety of the collections.

Undoubtedly it has been in one sense a private garden of the crown, inasmuch as its ordinary charges have been defrayed by the Lord Steward's department; but, on the other hand, as all the large expenses for foreign collectors having been for many years paid by the Treasury or Admiralty, it must be considered, to a certain extent, a public garden also.

Upon examining the book of deliveries before alluded to, and of which the abstract is appended to this Report, it appears that, in the course of the last 32 years, there have been 28 deliveries to the British Colonies, or to persons residing in the foreign settlements belonging to the British Crown; 36 to various branches of the Royal Family; 21 to specific institutions in this country; 227 to private individuals in this country; and 171 to foreigners; in all 483, or about 15 a year.

Mr. Aiton has sent the following letter in explanation of this :—

Royal Botanic Garden, Kew, February 22, 1838.

Sir, Agreeably to the request conveyed to me in your letter of the 20th instant, I send you an abstract of all deliveries contained in the garden-books, together with the names of the persons to whom the same were forwarded ; but the residences not being always inserted is the cause of several omissions in this particular. Many plants, seeds, and cuttings, in small quantities, have been given to amateurs, of which no account has been taken. It should be, however, particularly observed, that the royal collection has been required to supply great quantities of flowering and other plants in the reign of His late Majesty King George the Fourth, especially for the conservatories at Carlton House, the King's House, Lodge at Windsor Park, the orangery at the Castle ; and that these supplies being only from one to another of the royal gardens, many of these deliveries were not entered in the garden-books. There have been also considerable numbers of plants sent to the royal palaces on birth-days, birth-nights, and other grand entertainments, on which occasions many losses have been sustained.

With this explanation of a great dispersion of plants from the Royal Botanic Garden, and bearing in mind that of the two collectors sent abroad in 1814, one was recalled in 1823, the other in 1830, by the Lords of the Treasury, thereby cutting off the usual resources for replenishing the losses, &c., of the garden, and that also within the last ten years the allowance for keeping this garden being reduced nearly 600*l.* a year, it is evident that adequate means of late years have not been afforded so as to support a more extensive and more valuable collection ; nor could a greater distribution of plants be reasonably expected by the public, were it generally known that the Botanic Garden at Kew was originally formed at the private expense of the Royal Family, and has been maintained up to the present time in like manner with the other departments of the household establishments, the estimates of the expense being regulated and defrayed by the Lord Steward and the Board of Green Cloth.

I am, &c.,

To Dr. Lindley, &c. &c. &c. (Signed) W. T. AITON.

It is perfectly true that the garden means have been much curtailed for the last 10 years ; but this seems, upon the whole, to have been

advantageous to the public; for of the 483 deliveries in 32 years, 208 have taken place in those last 10 years, and the smallest number occurred in the years 1809, 1810, 1811, 1812, 1813, and 1814, when the deliveries did not quite average five a year; in 1811, they amounted only to two, and at this time it may be presumed that the garden possessed the greatest resources.

After all the explanation that has been offered; after allowing full weight to the assertion that the Botanical Garden at Kew has always been a private establishment; admitting, moreover, that a larger number of plants has been given away than is generally supposed, and that in many cases applications for plants have been liberally complied with, which is undoubtedly the fact, it really does seem impossible to say that it has been conducted with that liberality or anxiety to promote the ends of science, and to render it useful to the country, which it is usual to meet with in similar institutions elsewhere.

So far as the Lord Steward's department is concerned, the Botanical Garden at Kew is a dead weight upon the civil list; for, unconnected as it is with any of the palaces now occupied as royal residences, it has become a mere magazine of materials, very valuable, no doubt, with which to stock the other royal gardens: it would require a very large outlay of money to render it at all suitable for a royal pleasure-ground, and it does not appear to be wanted, now that Buckingham House has become the London palace, with a fine garden to it: moreover, the public will always expect that the only extensive botanical garden in the country should be available for public purposes. It is therefore recommended that the Lord Steward be relieved from the burden of this garden, unless it should be Her Majesty's pleasure to retain it.

If the Botanical Garden of Kew is relinquished by the Lord Steward, it should either be at once taken for public purposes, gradually made worthy of the country, and converted into a powerful means of promoting national science, or it should be abandoned. It is little better than a waste of money to maintain it in its present state, if it fulfils no intelligible purpose, except that of sheltering a large quantity of rare and valuable plants.

The importance of public Botanical Gardens has for centuries been recognised by the governments of civilised states, and at this time

there is no European nation without such an establishment, except England. The most wealthy and most civilised kingdom in Europe offers the only European example of the want of one of the first proofs of wealth and civilisation. France, Prussia, Austria, Bavaria, Russia, Hanover, Holland, not to mention smaller governments, have all botanical gardens, liberally maintained with public funds; and, what is more curious, Dublin and Edinburgh have similar establishments, to which grants of public money have been liberally furnished; but London has nothing, except a small garden at Chelsea, maintained by the funds of a private corporation. It has usually happened that botanical gardens have been established to meet the wants of universities; and so long as London was not the seat of a university, the necessity of establishing a public botanical garden was less pressing than it is at present. Now that a great number of students are annually collected in London for the purpose of study, it has become indispensable that such means of instruction as a botanical garden affords should be provided. It appears, from returns obtained from the Society of Apothecaries, that annually, on an average of the last three years, as many as 433 medical students have been registered as attending lectures on botany in London: they are compelled to attend these lectures, not only by the Apothecaries' Society and the College of Surgeons, but by the regulations of the army and navy; and yet this large number of young men, studying the most important of professions, is practically deprived of the advantages of referring to a botanical garden, without which it is impossible that their studies can be prosecuted efficiently. It is true that there is a Botanical Garden at Chelsea belonging to the Apothecaries' Society, but it is not to be expected that the funds of such a corporation, however liberally disposed it may be, should suffice for the maintenance of such a botanical garden as the wants of students render necessary.

But this is only one out of many reasons why a National Botanical Garden should be maintained by Government near London.

There are many gardens in the British Colonies and dependencies: such establishments exist in Calcutta, Bombay, Saharunpur, in the Isle of France, at Sydney, and in Trinidad, costing many thousands a year: their utility is very much diminished by the want of some system under which they can all be regulated and controlled. They are in a similar condition to the Royal Forcing and Kitchen Gardens

already disposed of; there is no unity of purpose among them; their objects are unsettled; their powers wasted, from not receiving a proper direction; they afford no aid or assistance to each other, and it is to be feared, in some cases, but little to the countries in which they are established; and yet they are capable of conferring very important benefits upon commerce, and of conducing essentially to colonial prosperity.

A National Botanical Garden would be the centre around which all those minor establishments should be arranged; they should be all under the control of the chief of that garden, acting in concert with him, and through him with each other, reporting constantly their proceedings, explaining their wants, receiving their supplies, and aiding the mother country in every thing that is useful in the vegetable kingdom. Medicine, commerce, agriculture, horticulture, and many valuable branches of manufacture, would derive considerable advantages from the establishment of such a system.

From a garden of this kind, Government would always be able to obtain authentic and official information upon points connected with the establishment of new colonies; it would afford the plants required on those occasions, without its being necessary, as is now the case, to apply to the officers of private establishments for advice and assistance.

Such a garden would be the great source of new and valuable plants to be introduced and dispersed through this country; it would be a powerful means of increasing the pleasure of those who already possess gardens, and, what is far more important, it would undoubtedly become an efficient instrument in refining the taste, increasing the knowledge, and augmenting the amount of rational pleasures of that important class of society, to provide for the instruction of which has become so great and wise an object with the present enlightened administration.

Purposes like these could not be effectually accomplished with such a place as the Botanical Garden of Kew now is. The present establishment would, however, form an admirable foundation; and the facility of reaching it, either by land or water, renders it impossible to select a better site in the vicinity of the metropolis.

To make it effective, it should be enlarged by the increase of at least 30 acres from the pleasure-grounds of Kew. Considerable

additions should be made to the houses ; every thing should be systematically arranged and named ; there should be distinct departments, both in the open air, and in houses, for medicinal, economical, and agricultural plants ; nurseries would be required for the propagation of plants for Government exportation, or for public purposes ; gratuitous lectures should be given upon botany in a popular form, but not as a regular academical course ; the most beautiful specimens of the vegetable kingdom should be carefully preserved for exhibition ; in short, the Garden should be perfectly adapted to the three branches of instruction, exhibition, and supply.

There is no sort of difficulty in effecting all this, and more, except the cost. To render it perfectly effective, would certainly not cost altogether at the utmost above 20,000*l.* ; 4,000*l.* a year would certainly pay for the maintenance afterwards, exclusive of repairs, and towards this sum it is not at all improbable that the Apothecaries' Society might be disposed to contribute, provided such an arrangement were made as would satisfy them that the objects of their garden at Chelsea, in that case to be abandoned, would be fulfilled.

(To be continued.)

ARTICLE II.

REMARKS ON THE CULTURE, &c., OF PRIMULA SINENSIS.

BY S. R. P.

EVER since this little flower dawned in our hemisphere I have been delighted with its beauty, and devoted to its culturè, and although we do not see it so prominent in our greenhouses as when its novel beauty first enchanted every lover of flowers, it will, nevertheless, long hold its place in the estimation of those who can value its simple and persistivè elegance in common with the more gorgeous but fleeting ephemera of the day. At a season when all nature seems inert, this little gem enlivens our dwellings with its cheerful and varied flowers, and with a little attention a succession of bloom may be kept up from September till May ; nor would there be any difficulty in continuing it to perpetuity, but that the hotter months, which can alone developè the full splendour of its more gaudy rivals, strip this modest little flower of its roseate hue.

I fear I cannot add much to the simple routine by which it can be flowered in great perfection; but there is one feature in my mode of treatment, by which I not only protract and control the period of blowing my plants, but add materially to their superior growth and beauty. I have practised it for more than ten years on this flower. I allude to the system of disbudding, which has already been noticed in the Cabinet, an incident very much neglected in the cultivation of plants generally, and which, at some future period, may command further notice, if you think it would be acceptable to your readers. [We shall feel much obliged by the attention of our correspondent to it at an early convenience, so that it may be acted upon this season.—
CONDUCTOR.]

In this plant, like its congeners, the stamen in some rise above the stigma, and in others the stigma stands up above the anthers, and are what, I think, are termed crown and pin eyed; this may account for their not always being productive of seed, without the assistance of art. The defect may be remedied by the use of a camel hair pencil, to convey the pollen to the stigma. I have no doubt they are capable of hybridizing with other plants of the genera; but of this I have had no experience.

I sow in a gentle heat in the beginning of April, and again early in August, covering the seed sown at the latter period with a little moss to prevent evaporation; in both cases the plants are put out singly into sixties as soon as the rough leaves are half an inch across, in a compost of equal parts of light loam, leaf or vegetable mould, and peat, in which white sand abounds; and this compost is used through all their future culture: neither of these sowings are made to flower the same year. The early-sown plants are kept in vigorous growth by frequent shiftings and the use of liquid manure twice a week; those sown in August are kept in sixties in a greenhouse or frame through the winter till March, when they are treated the same as the spring-sown plants. The August-sown plants are not allowed to expand their blooms till the autumn of the following year, therefore all the blossom stems that appear before they are required are cut off as soon as they can be distinguished; these plants are made to blossom in succession till Christmas, when the spring-sown plants, by a like treatment of disbudding, are brought to succeed them, and to carry on the bloom till May. The nice adaptation of water in

every stage of their growth, and an entire shade from the scorching effect of the midday sun during the summer months, are points that require the greatest attention in order to their successful cultivation. They must not be suffered to get too dry, nor must they be watered to saturation; these matters are easily regulated by daily attention and a good drainage. In the latter shifting I pot deep, as I find there is a tendency in the plant to raise itself above the mould.

Under ordinary treatment, this plant is sufficiently attractive to be known and valued by every lover of ornamental flowers; but if its capability be tested by the above suggestions, it may be made to expand its foliage far over a pot ten inches in diameter, when, with its five or six stems, thickly studded with truly elegant flowers, it will exhibit a pyramid of pictorial beauty.

ARTICLE III.

ON THE GROUPING AND PLANTING OF FLOWERS.

BY T. W., OF WALTON NURSERY, LIVERPOOL.

AGREEABLE to promise, I here send you a method of planting and grouping flowers which I have successfully practised, hoping it may meet with approbation from those who, like myself, are devotedly attached to floriculture. At the same time, I trust that your valuable pages will not be wasted by the insertion of the remarks, to the exclusion of worthier matter.

Having had to contend with a very bleak and exposed situation in the cultivation of flowers, and being totally unable to grow many beautiful climbing plants (which ought to form no inconsiderable share of every fine flower garden) in the ordinary way, I have adopted the following method with other flowers grown in masses on lawns, parterres, &c.

I first plant my beds (which, for the following method, are generally of some regular form) with some choice and beautiful flower; in the centre of the bed I fix a pin, either of iron or strong wood; this pin is firmly fixed in the soil the exact height to which the flowers that form the mass are expected to grow. Round the margin of the bed, about six inches from the verge, I place other pins at equal distances according to the size of the bed and the flowers intended to be planted,

From the centre pin to the outside ones I place wires in a neat manner: one is fixed from pin to pin on the outside, so that the whole, when finished, resembles a wheel. Both the centre pin and the outside ones are fixed very firm, to admit of the wire, which is not very strong, being drawn straight and tight. The outside pins should not be too high, as the twiner intended to be planted to run thereon is to form, as it were, an edging to the whole. At each of the outside pins I plant my plants, the more tender sorts in pots; these, as they grow, are kept neatly tied to the wire and trained towards the centre pin. Other twiners or climbers, of a different kind from those that are trained towards the centre, are planted at intervals, according to their habits or luxuriant growth, round the outside wire, to form the aforesaid edging.

The beauty and success of this method depends on the neatness with which the plants are trained to the wire, and in their being placed at a proper height, so as to mingle, as it were, their blossoms with those forming the mass of the bed. A little taste is also necessary to assimilate as near as possible the plants forming the mass, and those trained to the wires, both as regards size, and, as far as practicable, shape too, as will be seen by the manner in which the following kinds are grouped together.

No. 1. A bed of *Escholtzia crocea*, with *Convolvulus major*, on the converging wires, and *Clematis Sieboldii* for the margins. 2. A bed of Hybrid *Mimuluses*, with *Mannandya Barclayana* for the rays, and *Lophospermum scandens* for the margin. 3. A bed of *Nolana atriplicifolia*, with *Thunbergia alata* for the rays, and *Petunia nyctiginiflora* for the margin. 4. A bed of *Streptocarpus Rexii*, with *Tropæolum tricolorum* for the ray, and *Cobæa scandens* for the margin. 5. *Anagallis Philipsii* in a bed with *Thunbergia alata alba* for the ray, and any of the small growing *Ipomeas* for the margin. 6. *Calendrinia discolor* for the bed, with *Loaza aurantiaca* for the ray, and *Rhodochiton volubile* for the margin. 7. A bed of *Lobelia bellidifolia*, with *Lantana Sellowii* for the ray, and *Verbena Tweediana* for the margin. 8. A bed of *Verbena Melindres*, with *Tropæolum Pentaphyllum* for the ray, and *Thunbergia alata* for the margin. I have merely given the above list to show what may be done in the way of grouping, and which can easily be multiplied at pleasure. The plants I use for training on the wire I always con-

trive to have a good stock of, well established in pots. Nothing more beautiful than the above arrangement can be well imagined when done with neatness; and the season for planting such beds having now arrived, it is hoped that these remarks may prove acceptable.

ARTICLE IV.

FURTHER REMARKS ON THE YELLOW RIVAL DAHLIAS.

BY MR. SHARPE, GARDENER, TO C. MAINWARING, ESQ., COLEBY HALL, NEAR LINCOLN.

I SEE by your last Number we are likely to have the paper war continued respecting the Yellow Dahlias. Now, as no good can arise from such a warfare, I think the best way would be to bring them together the following show-season as often as possible, and let them have a fair stand-up fight, (as Mr. Woodmansey expresses himself,) for according to the victories they gain should purchasers be guided in their purchases next spring, and not trust merely to newspaper or catalogue statements. I would advise all who may possess either of the three rivals to challenge either one or both the other two for a trifling sum, (if grown in the same neighbourhood, whether they otherwise exhibit or not,) that their merits may be known. We never grow for showing, (except the show they make in our grounds;) but as we have Argo, and I intend going to the Grantham exhibition, I will show either one or three blooms against either Defiance or Henrietta, for ten or twenty shillings, against any grower in the county, and shall immediately take steps to make known my wish to bring the rivals together. Should you think these remarks useful, and I think if acted upon they would be, they are at your service. Every Dahlia grower will feel obliged to Mr. Woodmansey for his account of the winning flowers; it will be the best guide for the next season the purchasers ever had, if he will give it us faithfully, as he has promised.

Your correspondent at Wellingborough (see June number, p. 132) had better immediately put in his paring spade and burn his turf, as he will find the ashes to suit his Pansies remarkably well, and almost every other plant that delights in a cool soil, and save him six or nine months, beside his soil being in better condition than if his turf was allowed to decompose in a heap or otherwise.

ARTICLE V.

ON PROPAGATING CARNATIONS, &c.

BY MR. S. P. SCARNELL, ST. OSYTH, ESSEX.

As it is frequently the case that a weakly layer or piping of Carnation is lost in consequence of its only sending up a flower stem and no side shoots, and as the time is now approaching that every admirer of that beautiful flower will gratefully receive any intelligence respecting its cultivation, I beg (with deference) to communicate a plan that I have adopted with universal success; it may not be novel to many, although I have never heard of its being practised by any one, till from reasoning and observation as to the result, I made trial of it myself, and have this year two plants with four or five side shoots, besides having the pleasure of the blossom last year; whereas if the flowering stem is cut down early it sends up another and dies; if left till the bloom fades, your plant is almost sure to perish, notwithstanding the greatest care.

In the month of July an incision is to be made as for layering, except that it is to be commenced above one of the lower knots and carried downwards; the current of sap being thus divided, one half nourishes the flowering stem—the other, finding a check, sends forth a shoot, thus saving your plant.

ARTICLE VI.

REMARKS ON, AND DESCRIPTIONS OF, SOME SEEDLING PELARGONIUMS.

BY E. BLIGHT, ESQ., WYNDHAM PLACE, PLYMOUTH.

IN my last communication with you (inserted in the June number, p. 134) on the subject of seedling Geraniums, I had reached as far as No. 3, or Nairn's Gem of the west. It will now be my object to continue information for the use of your Cabinet, and also that Mr. Nairn, Florist, Lower Stoke, Devon, may be more fully known and appreciated, both as a grower and raiser of that beautiful flower. I shall send you enclosed specimens of six, regretting I cannot of the whole, (as they are not all open,) but you shall have, as accurately as I can give, *the true description of all*. I must repeat that I think Gem the best Geranium yet raised, but you will be able to judge for yourself. No. 4, or Nairn's Lord of the Manor, is a fine round

flower, of a beautiful dark rose ground, with a large black spot, or more properly a flamed spot, as from the edge of the black there is a vivid colour, passing off to a deep rose. Petals, strong and flat, form perfect. No. 5, or Nairn's Enchantress, a beautiful flower, most striking as its colour is a novelty, being what I term a red rose ground, with dark flamed spot, splendidly lined at the bottom of the upper petals, and when seen in bloom will be acknowledged a most superb show flower. No. 6, or Nairn's Lady Graham Moore, a splendid show flower, beautiful form, nearly white, the upper petals almost covered with a crimson purple spot, or splash, producing from five to seven flowers in the umbels. No. 7, or Nairn's Muckle Charley, a splendid flower of extraordinary size, fine dark rose, with good spot, dark lines running out to the edge of the petals, the under petals several shades lighter than the upper. No. 8, or Nairn's Lady of the Manor, a beautiful delicate pink with the spot of Sylph, and considered by many amateurs to be superior to that flower, producing a very large umbel, from seven to ten flowers. No. 9, or Nairn's Polyphemus, a splendid large flower, in the way of Joan of Arc, but superior in colour, the dark splash terminating with a fiery scarlet, shading off to a pink at the edge of the petal; the under petals of a beautiful light rose; plant of a superior habit. No. 10, or Nairn's Alexandrina Superb, of a *most pure white, with very dark and clean spot*, far surpassing its namesake, although resembling; foliage smooth. No. 11, or Nairn's Phosphorus Superb, very far surpassing Gaines's of that name, both in size, and shape, and spot; same colour. No. 12, or Nairn's Elizabeth, a fine rose of superior shape, perfectly flat, with dark crimson spot, beautiful habit, very short growth, having the quality of Dennis's Perfection, and will not draw.

I have now given you a description of twelve seedlings. I think you cannot be disappointed in the six specimens sent; the character of the remainder is not at all highly drawn, and must give general satisfaction to whoever may become possessed of them; they must adorn any house.

[The flowers are of the first rate character, fine formed, decided colours, and have a striking, distinct, large spot. They are deserving a place in any collection, and our observations on the first rate kinds have recently been extended to every first rate collection we knew of. —CONDUCTOR.]

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

1. *BOUVARDIA TRIPHYLLA*; VAR. *SPIENDENS*.—Scarlet Bouvardia. (Bot. Reg. 37, 1840.) Cinchonaceæ, Tetrandria Monogynia. A variety of the old and deservedly admired *B. triphylla*. The flowers of the variety now noticed are of a deep orange red, slightly tinged in places with yellow; they are similar in size and produced as freely as in the old species. Seeds of it were presented to the London Horticultural Society by G. F. Dickson, Esq., and it has bloomed in the garden. Dr. Lindley observes, it is a half hardy shrub, flowering from May to October, if planted out in the American border. The roots will live in the open border all winter, but should have a hand-glass or inverted garden pot placed over so as to keep them dry. It is better, however, to take up the plants at the end of autumn, pot them, or place them in boxes, keep them dry, till February, then re-pot them. They very readily increase by cuttings of the roots, inserting them in sand, allowing about one-third of the cutting above the sand. If placed in a hot bed or bark pit, they speedily strike root and make good plants by May to turn out into beds, &c.

2. *BRASSAVOLA VENOSA*.—Vein-lipped. (Bot. Reg. 39.) Orchidaceæ. Gynandria Monandria. Imported by Messrs. Loddiges from Honduras. Sepals and petals long, but very narrow, green. Labellum, the spreading lamina white veined with dark; the claw of the Labellum is green. The flowers are deliciously sweet at night. *Brassavolas* grow best when they are suspended from the roof or pillars, tied to a block of wood which has some pieces of turfy peat secured to it, so as to keep the roots moist.

3. *LOPEZIA LINEATA*.—Line-leaved. (Bot. Reg. 40.) Onagraceæ. Monandria Monogynia. It is a soft wooded greenhouse shrub, which blooms very profusely in January and February; grows about three feet high, producing numerous racemes of flowers, of a pale red colour. Each blossom is about half an inch across. It is easily increased by seeds, and grows rapidly in any good soil.

4. *LÆLIA RUBESCENS*.—Blushing, (Bot. Reg. 41.) Orchidaceæ. Gynandria Monandria. The smallest flowered of any of the *Lælias* yet introduced to this country. Each flower is about an inch and a half across; sepals and petals of a delicate blush. Labellum at the edge blush, centre yellow, having a dark chocolate eye. The flowers are produced freely on short racemes.

5. *TRADESCANTIA TUMIDA*.—Gouty-jointed. (Bot. Reg. 42.) Commelinaceæ. Alexandria Monogynia. A half-hardy herbaceous plant, but which requires, to do well, the treatment of a greenhouse; perennial. The plant is of the same habit as the common species; the flowers about the same size, of a deep rose colour. It is easily increased by cuttings, layers, or seeds.

6. *ONCIDIUM PACHYPHYLLUM*.—Thick-leaved, (Bot. Mag. 3807.) Orchidaceæ. Gynandria Monandria. A native of Mexico, sent to Woburn Gardens, where it has bloomed, by John Parkinson, Esq. The leaf is remarkably large, thick and leathery. The flowers are produced in a large panicle, very numerous, each blossom being about an inch and a half across, of a greenish yellow, spotted with a red purple. Lip yellow.

7. *MARICA HUMILIS*, VAR. *2 LUTEA*.—Yellow var. (Bot. Mag. 3809.) Iridaceæ. Triandria Monogynia. A native of Brazil, requiring to be grown in the hot-house. The spathe rises half a yard high, terminating with its pretty flowers, each being about two inches across, yellow, striped with pale purple.

8. *RHODODENDRON CAUCASICUM HYBRIDUM*.—Hybrid var. (Bot. Mag. 3811.) Rhodoraceæ. Decandria Monogynia. An hybrid raised in the Nursery of Messrs. Veitch's, Exeter. The flowers are white, spotted with greenish yellow,

9. *ZYGOPETALON AFRICANUM*.—African. (Bot. Mag. 3812.) Orchidaceæ. Gynandria Monandria. A native of Sierra Leone. It has bloomed in the Woburn collection. Flowers are produced on a simple raceme. Sepals and petals of a greenish yellow, blotched with brown. Labellum, claw yellow; lip, white, tinged with rose. Each flower is about two inches across.

10. *POLEMONIUM CŒRULEUM*; VAR. *GRANDIFLORUM*.—Raised in the Garden of the Horticultural Society, from East Indian seed. It is a hardy biennial, growing a little taller than usual. The flowers are blue, nearly thrice the size of the common kind. It is a fine border flower.

11. *THALICTRUM CULTRATUM*.—A hardy herbaceous species, growing three feet high, having greenish yellow flowers.

Mr. Skinner has lately sent to this country several valuable collections of Orchidæ from Guatemala. Dr. Lindley, in Bot. Reg. for June, remarks the following, viz. *Oncidium leucochilum*, *Stanhopea oculata*, *Epidendrum Skinneri*, *E. aurantiacum*, *E. incumbens*, *E. macrochilum*, *E. Stamfordianum*, *E. rhizophorum*, *E. aromaticum*, *Cattleya Skinneri*, *Cyrtochilum maculatum*, var. *Russellianum*, *Lælia superbiens*, a most splendid flowering plant. *Brassavola glauca*, *Hexoplia crucigera*, *Aspasia epidendroides*, *Odontoglossum grande*, a very splendid species. *Oncidium ornithorhynchum*, *O. ampliatum*, *Hartwegia purpurea*, *Cynoches ventricosum*, *Catasetum maculatum*, *Tregonidium Egertonianum*, *Maxillaria Skinneri*, the finest of *Maxillarias*, *Polystachya bracteota*.

PART III.

MISCELLANEOUS INTELLIGENCE.

HORTICULTURAL EXHIBITION.

(Concluded from last Number.)

The following very fine specimens were exhibited on the occasion:—

Fuchsia Standishii, six feet high, in profuse bloom, by Mr. Standish.

— *sanguinea*, five feet high, very profusely in bloom. The corolla is of a deep red; the flower is somewhat of the *F. globosa maxima* habit, but much larger; it appears to be produced between that and *F. fulgens*. It is a very fine kind, well deserving a place in every collection.

Clematis bicolor, a plant from Mrs. Marryatt, trained to about six feet high, having upwards of three hundred expanded flowers. It was very beautiful.

Gloxinia violacea. The flower large, of a violet-purple colour; by Mr. Mountjoy.

Anagallis cærulea grandiflora. In the way of *A. Phillipsii*, but a larger flower; by W. Harrison, Esq.

Stephanotus floribundus. A plant coiled and trained to the height of eight feet, was most charmingly in bloom; its large clusters of pure white strikingly rich and fragrant flowers, gave it considerable attraction. This plant ought to be in every collection of hot-house plants. The one exhibited was from Mrs. Lawrence.

Lrora (new species), with fine heads of beautiful white flowers; by Baron Dimsdale.

Lrora coccinea: a fine plant, was exhibited by Mr. Bruce, gardener to Boyd Miller, Esq., having twelve heads of bloom, each being the size of a moderate *Hydrangea* bloom. It was remarkably well grown and had a fine appearance.

Chorozema ovata. A plant was exhibited by Mr. Green, about three feet high, having upon it more than three hundred flowers, which gave it a very splendid and interesting appearance.

Solanum paniculata; by Mr. Redding, from Mrs. Maryatt's. The flowers are of a pure white, pendulous, very delicate and pretty.

Erides odoratum, having 24 pendulous racemes of lovely flowers, of a beautiful white, which in a few places is tinged with purple; by S. Rucker, Esq.

Oncidium lanceanum; most beautifully in bloom; sepals and petals brown and green freckled, lip purple and lilac.

Mannettia cordata, a plant trained on a globular wire frame, about five feet high, was exhibited by Mr. Butcher, from Mrs. Lawrence's collection; it had more than two thousand blossoms upon it, looking beautiful.

Gloxinia; an hybrid unnamed. The flower is three inches across and four long. Purple, but there is a streak of white up the middle in the inside; by Mr. Butcher.

Anigozanthus, (Spec.) a plant whose flower stems were eight feet high, having five principal heads of flowers, formed of numerous lateral heads. By Mr. Butcher.

Saccolobium præmorsum. This fine flowering Orchidea, by Mr. Rollisson, had numerous pendulous racemes of flowers, each about sixteen inches long; the sepals and petals white with purplish spots; lip of a fine purple. It was a very beautiful object.

The following are the most superb we have seen:—

PELARGONIUMS.—*Bridesmaid*. Lower petals a pretty blush, upper having a large clouded spot of dark crimson edged with blush; the flower is large and of a first-rate form.

The Nymph. Lower petals of a fine carmine rose, upper having a large clouded dark spot edged with carmine rose; the centre of the flower is nearly white. It is a large flower of first-rate form, raised by E. Foster, Esq.

Glory of Jersey. Lower petals white, upper having a large clouded dark spot edged with white; a very fine form; raised by Mr. W. Blackford, St. Heliers, Jersey.

Acme of Perfection. Lower petals of a beautiful blush, upper having a large dark spot edged with white, the centre is nearly white; the flower is large and of a first-rate form, raised by Mr. Blackford.

Comte de Paris. Upper petals of a fine scarlet, having a large dark spot; lower petals of a lighter colour; the flower is of first-rate form. By Mr. Catleugh.

Little Wonder. Lower petals of a pretty light blush, upper having a large dark spot, edged with nearly white; it is an abundant bloomer, and of first-rate form; raised by Mr. Gaines.

Victory (Garth's.) Lower petals light blush, upper ones having a large crimson spot, edged with light blush; of fine form.

Cyrus (Eyre's.) Lower petals of a pretty blush, upper having a large dark spot, lined slightly outside, finishing to the edge, with light blush; it is of good form. By Mr. Russell.

Russell's No. 1. Lower petals nearly white, upper having a large dark spot edged with blush; of good form.

Prince Albert. Lower petals of a fine pink-blush, upper having a large clouded spot, shading off gradually to the edge; the centre of the flower is nearly white, which gives contrast to the other colours; it is of first-rate form; raised by Mr. Gaines.

Prince Henry. Lower petals of a pretty pink, upper of a fine rose, and having a dark spot slightly lined at the edge. The flower is large and of good form. Mr. Gaines's.

Countess of Bathyon. Fine blush and pink, the upper petals having a large dark spot.

Erectum. Upper petals rosy-crimson, having a large dark spot. Lower petals lighter colour. Fine form.

Lady Douro. Beautiful rose, upper petals large dark spot. Fine form.

Bijou. Upper petals rosy-crimson, having a large dark spot. Lower petals of a rosy-pink. Fine form.

[In the descriptions we have given of each of the above, there may be a similarity in some; but though the colours and form appear somewhat alike in the descriptions, there is a very striking distinction from each other when seen growing, so that one kind cannot be a substitute for another to make a collection what is desirable. Each we describe are of *first-rate* character, and superior to what has ever before come under our notice. We shall continue to give the particulars of many others in our future numbers.—CONDUCTOR.]

HORTICULTURAL SOCIETY.

JULY 7.—Dr. Henderson, V. P., in the chair. The new Fellows elected were William Ogilby, Esq.; Mr. Edward Denyer, of Loughborough-road, Brixton; A. L. Gower, Esq., of Finsbury-square; Mrs. Cockburn, Brixton-hill; and J. Fielden, Esq., Witton-hall, Lancashire. The Marquis of Ormonde and the Earl of Enniskillen, being peers of the realm, were balloted for, and immediately elected.

The presents announced were the Transactions of the Zoological Society, vol. ii., part iv., and the Proceedings from Nos. 73 to 84; the Philosophical Transactions of the Royal Society, the list of Fellows, and their Proceedings, from 40 to 42; the Proceedings of the Scientific Society, and the current numbers of Floricultural Cabinet; Baxter's British Flowering Plants; Paxton's Magazine of Botany; the Botanical Register; the Ladies' Flower Garden of Ornamental Bulbs, and the Athenæum. There had been added to the library, by purchases, Dr. Royle's Botany of the Himalaya Mountains, and the current numbers of the Botanist, Gardener's Magazine, and Botanical Magazine.

Dr. Lindley next announced that the awards at the gardens on Saturday were 4 gold Knightian, 10 gold Banksian, 23 large silver, 22 silver Knightian, and 23 silver Banksian medals, making a total of 82. There had also been 5,071 persons admitted by tickets upon that occasion.

The model of a self-acting ventilator was exhibited by Messrs. T. and P. Irvine, of 11, Charles-street, Hatton-garden, and briefly described by Dr. Lindley. It was to regulate a constant admission of air and no more, and for this purpose there was an empty copper cylinder connected with a syphon of mercury, there also being another arm which raised or depressed the ventilator. It was, in fact, but an application of the method adopted in Dr. Arnott's stove. The objections stated by Dr. Lindley against these self-regulating contrivances were, 1st. that they were easily liable to get out of repair; and 2nd. that any house into which they might be introduced, required an attention to other circumstances which this automatic apparatus could not receive.

The subjects of exhibition were few in number, the exhibition at the Garden having been on Saturday; but the most prominent were some Orchideous plants from James Bateman, Esq., who has done so much for this class of plants. There was *Mormodes pardina*, very much like a *Catasetum*, with a fine fragrance, and the flower prettily spotted; *Brassia lanceana*, a beautiful object, loaded with racemes; *Maxillaria Colleyi*, one of the loveliest of the race, and very rare, not to be met with in any other collection; *Dendrobium chrysanthemum*, a pretty drooping epiphyte; and *Orchis foliosa*, from Madeira, a plant resembling our own species of *Orchis latifolia*, but grows to six feet high.

Mr. Hill, of Messrs Colley and Hill, Hammersmith, exhibited a seedling geranium, named by him Prince Albert. It was of a fine scarlet and orange, with a delicate white in the centre, having a gorgeous lustre, and of the shape of Gaines's King. Mr. Hogg exhibited a collection of carnations and picotees, very superior ones.

Mr. Chandler, of Vauxhall, exhibited a *Fuchsia Chandleri*, and Mr. John Smith, of Dalston, eight hybrid *Fuchsias*, produced by mixing the *Fuchsia fulgens* of Mexico with the Chilean varieties of *globosa*, *gracilis*, &c. These hybrids are extremely beautiful. Mr. Smith also exhibited his superb scarlet geranium.

The remaining specimens in the rooms were from the gardens of the society. Amongst them was *Portulacca Thellusoni*, one of the handsomest of the tender

annuals introduced into this country for many years. The flowers only open in brilliant sunshine, when they are of a fine reddish-scarlet, and quite flat. The plant was brought over by Lord Rendlesham from Florence. There was a fine plant of *Bravoa geminiflora*, a bulb from Mexico, known some years ago, but in small quantities, but some hundreds having been sent over from Mr. Hartweg; it is expected soon to become plentiful; and *Amphicoma arguta*, six feet high, a plant for which the society is indebted to the overland expedition of the East India Company, hanging in long loose clusters, and blowing well for some months. There was also *Euthales macrophylla*, a profuse yellow flowering greenhouse plant from Swan River. *Philibertia gracilis*, *Rodriguezia planifolia*, *Russelia multiflora*. The flowers are not so long as *R. juncea*, of a deeper red, but produced very numerously. *Statice mucronata* and *S. sinuata*, *Tweedia cœrulea*, with *Fuchsia cylindracea*, *Standishii*, *grandiflora maxima* and *multiflora erecta*. There were also some cut flowers of *Crinum amabile*, *Pentstemon gentianoides*, *Mandevilla suavolens*, a greenhouse twiner, grows rapidly and blooms profusely. The flowers are of a pure white, in clusters, and about as large as the common white convolvulus. It is a valuable addition to greenhouse climbers: and *Alstromelia pulchella*, merely brought to show how perfectly hardy the plant was, it having been exposed to the severe frosts of 1838 and 1839. It has become stronger every year, and will now bear every soil but that of a stiff clay. It grows about four feet high, flowers very profuse, and its fine orange-red blossoms are peculiarly showy.

QUERIES.

ON CHANGING THE COLOUR OF THE FLOWERS OF *HELICHRYSUM*, &c.—Would you, or any of your numerous readers, be kind enough to inform me how they change the colour of the *Gnaphalium* (everlasting) flowers, and what they do it with, and which variety it is; and likewise could you inform me which is the best angle for a plant stove and a greenhouse? An answer will be thankfully received by

July 9th, 1840.

A YOUNG FLORIST.

[We judge our correspondent refers to the *Elichrysum* flowers exhibited for sale in Covent Garden, the Pantheon in Oxford-street, &c., in London. They are the flowers of the *E. arenarium*, and are imported from France; there they are grown extensively for the purpose. In the natural state the flowers are yellow, but by a process of dyeing they are coloured blue, green, red, &c., as offered for sale. The plant is a hardy herbaceous plant, grows and blooms freely in this country, and may be procured at most nursery establishments. The *margaritissimum*, the pearl species, grows and blooms more vigorously, having large heads of flowers, would look even better than *arenarium*. By the same process of dyeing any of the everlasting flowers might be rendered more interesting by contrast of colours. The nearer south the houses can be placed the better, light and heat are proportionately obtained by natural means, and save a great deal of firing, &c., in other respects necessary. Means for a free admission of air is an essential requisite. If our correspondent will give us any particulars of situation, we will gladly give any information in our power.—CONDUCTOR.]

ON CULTURE OF GERANIUMS.—A few plain remarks on the cultivation of the best Geraniums will be gratefully received by a subscriber to your interesting publication, "The Floricultural Cabinet;" mine this season have not succeeded well, they are run up very weak, and the blossoms small. I have kept them about a foot or 18 inches from the glass, but whether it is the soil, or too much water, I am at a loss to know: if you will be so obliging as to comply with my request, and state just a few practical hints, I shall feel very thankful.—[We have an article in preparation for our next number, having recently been at all the London collections obtaining information on the mode of culture so very successfully pursued, &c.—CONDUCTOR.]

ON DESTROYING MOSS ON LAWNS.—Will the Conductor, or some reader of the Cabinet, inform me what method to adopt in order to destroy moss from a lawn? An early reply will oblige
 JUVENIS.

[Lime in a powdered state, or soot, sown by the hand regularly over the surface, will effectually destroy it. It should not be sown in midsummer, but either in spring or autumn. Soot is preferable to lime.—CONDUCTOR.]

ON A SUITABLE SOIL FOR PANSIES.—You will oblige me by stating in your next "Cabinet" what sort of soil is best to grow Pansies in. Last August I bought twelve varieties, expecting to have some blooms fit to show this spring, but this year they are all much smaller than when I bought them. I grew them in a light, but rich soil, and watered them well.

Supposing it was some fault in the soil was the cause, I will thank you, or some correspondent, to say what is the most suitable soil for them.

July 3d, 1840.

JOHN MOSTON.

[In a very light and open soil, the roots are very liable to injury from drought or cold. In a medium kind of loam, well enriched with old rotten cow-dung, they will grow vigorous, provided the situation where grown is not close to a wall or hedge open to the midday sun. In such a situation they are generally so scorched as to die before long. An open, airy situation, where they have shade for two or three hours at midday, is the best. The finest Pansies we ever saw were grown in pots about eight inches diameter, and in a soil as above recommended. The pots were kept in a cool frame, and the sashes were covered during hot sun.

The plants are so readily propagated that a quantity can easily be obtained to try them in various situations. To have vigorous plants, there should be two propagations, one in April or May, and another in July or August. These latter make fine plants for blooming the following spring, and the former the autumn after raising.—CONDUCTOR.]

ON HEATING A GREENHOUSE, LIST OF FRAME PLANTS, &c.—Will you give me your advice on the subject of warming a small greenhouse, 12 feet by 9? I wish merely to keep out the frost, and get the things a little forward in the spring. A fire going round it will take up so much room and be expensive in building, as there must be a stove-house behind. All the hot water apparatus are liable to the same objection. Would a small stove answer the purpose—one of "Chanter's" patent, for instance—or are they detrimental to plants? Your own sheet of Advertisements contains little else but the prices of Dahlias: now there are many people not fond enough of them to purchase ten pounds worth, but who like other flowers; now if you would give the price of such things as Frame plants, you might get customers, viz. varieties of the scarlet Geranium, and other showy sorts, to put in beds in summer, &c., at per doz.; ditto Petunias, Lobelias, Verbenas, &c. I have beds of Ranunculuses, Anemones, &c. And I wish to know what to put in when those plants are out of bloom.

A SUBSCRIBER.

[Arnott's Stove, altered for the purpose, (see page 151 of July number.) it is said, answers well, and can be obtained for a few pounds. If our correspondent will look at the other pages, there are plants named suitable for succeeding, Ranunculuses, &c. The monthly Calendar often refers to such too.—CONDUCTOR.]

ON HEATING A GREENHOUSE, &c.—Will you, or any of your correspondents, through the medium of your instructive book, give me their opinion respecting the propriety of using the Patent Chuck Stove for heating greenhouses, &c.? Why I am induced to ask the question is, I have some idea of erecting a small Propagating House, with a bark pit in it, and it has occurred to me that the steam arising from the bark will counteract the dry atmosphere produced by the stove I have mentioned, and which is injurious to plants. Should it be deemed practicable, I feel certain that those who are their own gardener, as is my case, would be very much benefited, as it would save that constant trouble and attendance required in the old way of heating, and which many, situated as I am, are not able to give.

Boston.

A SUBSCRIBER FROM THE FIRST.

ON *VINCA ALBA*.—Can you or any of your readers inform me the best way to keep the *Vinca alba* in a healthy state? I have a very fine specimen of it, but it is always losing its leaves though in full bloom, and I give it the same treatment as other stove plants. I have thought it might proceed from keeping the house too moist. Perhaps you or some reader might be able to enlighten me on the subject; if so, you will very much oblige

Kensington, July 19th, 1840.

A SUBSCRIBER.

P. S. Will you give me the name of the plant I enclose a specimen of?—[The specimen of a plant sent us is an *Hypericum*, but it being so bruised and no particulars given relative to it in any way, we could not ascertain its specific character.—CONDUCTOR.]

REMARKS.

ON TOBACCO-WATER.—In this month's Cabinet you gave as a recipe tobacco water for the destruction of green fly on plants. Agreeably to the directions there given, I procured some in London and diluted it with an equal quantity of water. I submitted half a dozen of plants to the operation, immersing the plant entirely in the fluid for some minutes; this I found had but little effect upon the insects, as, at the expiration of half an hour, they appeared as lively as ever. Determined, however, not to be baffled, and as you state that the liquid used in its pure and undiluted state would have no injurious effect upon plants, I put them into it as I received it from the manufacturers; but alas! it not only killed the insects, but my plants that I much prized. The liquid was procured from a Dutch manufacturer of tobacco opposite the Custom House.

Chatham, May 22d, 1840.

A SUBSCRIBER.

[We have purchased hundreds of gallons of the liquid of the tobaccoists in Yorkshire, and frequently used it in its pure state, immersing plants in it, and it never injured one in the slightest degree.—CONDUCTOR.]

ON KYANIZED WOOD.—Observing many inquiries by your correspondents in the Cabinet relative to the use of Kyanized timber in stoves and greenhouses, and also several answers which are wide of the mark, I beg to give you an explanation of the combination which takes place by steeping timber in a solution of oxymuriate of mercury, (corrosive sublimate.) The chlorine of the sublimate unites with the albumen of the wood, forming a new insoluble substance in the pores of the wood, thereby destroying the component in which decay commences. Mercury is deposited by the decomposition of the sublimate, and is easily extracted in a metallic state. It can in no way be injurious to plants, as, if given out at all by the action of heat, it would be in the form of vapour rising rapidly above the atmosphere of the house, and the whole of the mercury (if any) would speedily be evaporated. I have had some years' experience in Kyanizing, and have a stove, the timber of which is so prepared; my plants have always been particularly healthy.

Hervey House, May 24th, 1840.

V. B. W.

FLORICULTURAL CALENDAR FOR AUGUST.

PELAGONIUMS.—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.—The young wood of many kinds of greenhouse plants being sufficiently hardened, if cuttings be immediately put in they will root well before autumn.

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 stratum 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.

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.

Mignonette, to bloom during winter, should now be sown in pots.

FLOWER GARDEN.—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 have their shoots stopped to make them branch, and keep them bushy, not 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 them large and showy.

REFERENCE TO PLATE.

IPOMEA LEARI.—On visiting the Nursery of Mr. Knight of Chelsea, in July, we saw this splendid plant in most profuse bloom; it then had about 500 expanded blossoms, and as it is closely trained over the two sides of a double roofed house to a wire trellis, it gave one brilliant hue of dazzling blue, and exceeded in splendour any other plant we ever remember seeing. We were informed that though the blossoms soon perish, every day an equal profusion (or generally so) is produced. The house it was growing in, in a bed at the corner, is kept some little warmer than a greenhouse, but we were informed that it grows rapidly and blooms profusely in the latter, and it is thought would bloom in the open air; a trial of it is making. The plant is shrubby, evergreen, and a most rapid grower, extending many yards in a season. It ought to be in every greenhouse, conservatory, or plant stove.

VERBENA HENDERSONI.—This beautiful flowering variety was received by Mr. Henderson from Mr. Buist of Philadelphia. It is a most profuse bloomer, of a shrubby habit, and ought to adorn every flower garden and greenhouse.

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L. H. B. & Co.

AGRICULTURAL CABINET SEP 1840

THE
FLORICULTURAL CABINET,

SEPTEMBER 1st, 1840.

PART I.
ORIGINAL COMMUNICATIONS.

ARTICLE I.
OBSERVATIONS ON KEW BOTANIC GARDEN.
(Concluded from last Number.)

It is inconceivable that Parliament would refuse the money for this purpose if the Garden were really remodelled with a view to such objects as those just described.

The only difficulty that is anticipated in the working of such an establishment is, the manner of distributing the plants through the country, and this is certainly an embarrassing subject.

There now exists so great an eagerness to procure new and beautiful plants, that to give the public any thing like a right to ask for duplicates from Kew would be to make a signal for a general scramble, which might end in the destruction of all that is valuable in the establishment; or if the officer in charge of the Garden had firmness enough to resist powerful applications on the one hand, and equally powerful demands upon the other; he would probably find the charge so disagreeable as to be disgusted with it, or he would be driven to make an unwilling compromise between his duty and the difficulties of his position.

At the same time, nothing can justify the present system in a public garden.

It has been proposed to sell the duplicate plants: so long as the Garden remains in the Lord Steward's department, it is impossible to sanction such a measure, which would be incompatible with the dignity of the Crown; but if the Garden is placed under the Com-

missioners of Her Majesty's Woods, &c., the objection is not only removed, but the plan becomes, upon the whole, the least objectionable of any, and in that case such a system as the following might be adopted :—

1. To secure at least two specimens for the garden.
2. To supply Her Majesty's gardens.
3. To sell by auction annually all disposable duplicates. It is of course impossible to say what income would be derived from this, but the value of the plants would much depend upon the opinion the public might entertain of the chief officer of the garden, whose business it would be to determine the names of the plants to be sold. [This would be injurious in proportion to extent to nurserymen and florists, and would be a disgrace to the establishment.—CONDUCTOR.]
4. To propagate nothing except what is wanted for Government purposes, and so far as the raising new plants from seeds can be called propagation.

In addition to this there should be vested in the chief officer of the Garden a power of making exchanges with private individuals in this country at any time, and also with foreign gardens, after the wants of the British public are satisfied.

If Parliament were to grant a sum for rendering Kew a great national garden, Her Majesty's Commissioners of Woods, &c., would be relieved from a considerable annual burden; for it appears that since the year 1834 inclusive, the cost of repairs, &c., has been as follows:—

	£.	s.	d.		£.	s.	d.
1834 . . .	497	11	0	1836 . . .	881	4	0
— . . .	483	15	0	— . . .	4,183	18	4
1835 . . .	825	4	8	1837 . . .	449	0	0
— . . .	621	0	0				
					£ 7,941	13	0

and the charge of ordinary repairs is not at all likely to be diminished under any arrangement, except that of entire renovation.

As there is no necessity for effecting alterations in this Botanical Garden otherwise than gradually, no sudden burthen need be thrown upon the public on that account.

[We scarcely need add that the situation is peculiarly adapted for its purposes, and in many respects highly interesting. The keeping of the Garden was highly creditable to Mr. Smith, and if the establishment in every other department was equally supported and attended to, it would be worthy of the high distinction it ought to sustain. We do hope that the naming of *the entire collection of plants* will no longer be neglected, and if no other means be available to have it done, that some person or persons will be permitted gratuitously to do it. The Garden contains very many fine specimens, both in the houses, grounds, borders, and trained against the walls, and will well repay a visit. We have introduced the subject in our pages to invite those of our readers who can, to go, and to intreat such as can in any way contribute to further the improvement of the place, to attempt it. Many of our readers, no doubt, have duplicates of *new plants*; it would so far be promoting an additional interest by giving them to the establishment.

That person who contributes to render gardening more pleasing and interesting in any establishment, especially in a public one, materially assists in promoting its advantages to an incalculable extent, not only in so far as it contributes to the pleasures of its present admirers, but in procuring additional admirers and supporters.—CONDUCTOR.]

ARTICLE II.

FIVE MINUTES' ADVICE TO A YOUNG FLORIST.

BY MR. WILLIAM WOODMANSEY, HARPHAM, DRIFFIELD, YORKSHIRE.

(*Paper the Second.*)

MY YOUNG FRIEND,

You perhaps will remember my last paper treated on the choice of the Pansy; I will now offer you a little advice on the choice of the Auricula, and in doing this I must have recourse to my minute-book. Previous to the commencement of the shows this spring, I made me a little book, and took down a few of the leading varieties in each class; and every week I noted down the number of times each flower was placed or had prizes awarded. I think I examined

every exhibition in the "Gardener's Gazette," also those published in the York and other local papers; and taking these as a standard, I find my notes upon the flowers stand as follows:—

In the first class (green-edged ones), Booth's Freedom and Oliver's Lovely Ann have each taken eleven prizes. Page's Champion has taken ten prizes. Warris's Blucher, seven prizes. Lee's Colonel Taylor, and Howard's Nelson, five prizes each; and Stretch's Alexander, four prizes.

In the second class (grey-edged ones), Kenyon's Ringleader has taken twenty-two prizes; Warris's Union, eight prizes; Metcalfe's Lancashire Hero, seven prizes; Waterhouse's Conqueror of Europe, Taylor's Ploughboy, Grime's Privateer, and Ryder's Waterloo, each four prizes.

In the third class (white-edged ones), Taylor's Glory has taken fourteen prizes. Popplewell's Conqueror, twelve prizes. Lee's Bright Venus, eight prizes. Hugh's Pillar of Beauty, six prizes. Taylor's Incomparable, five prizes. Pott's Regulator, and Wood's Delight, three prizes each: and,

In the fourth class (Self's), Berry's Lord Primate has taken eight prizes; Hey's Apollo, seven prizes; Whittaker's True Blue, six prizes; Grime's Flora's Flag, five prizes; Redman's Metropolitan, four prizes; Schole's Ned Ludd, three prizes; and Berry's Lord Lee, two prizes.

Now mark you! I do not mean to say that these are the only good flowers among this tribe of plants; or that these are the only prizes the above have taken this season. There may be, and no doubt there are, many as good flowers as those I have named; but better there need not be; and as I have grown most of them, and seen the rest grown by others, I can testify of their merits and confidently recommend them. There is, however, one of the kinds that you will find very bad to keep when you get it,—I mean Lee's Colonel Taylor. It is so impatient of wet, that unless you keep it constantly housed, and also a piece of glass over it into the bargain, to secure it from any droppings of water falling into the heart of the plant, it is ten to one but you will lose it. I lately heard an experienced florist say, that in the neighbourhood of Sheffield he could go blindfold to any auricula house and point out every plant of Colonel Taylor that was grown in it: and he afterwards told me that the above method of

growing them was the only thing by which he could distinguish them.

You will perceive I have not recommended any alpines to your notice; for although some of them are beautifully shaded and very pretty, yet I do not think any of them worth the prices asked for them. Your best way, if you would like to grow alpines, would be to get a packet of good fresh seed, sow it in a box or pan, and place it in a moderate hot-bed. You will, by this means, raise abundance of plants; and if the seed has been saved from pretty good kinds, you will have almost as many different kinds and shades as you can reasonably desire. I have this season seeded a whole bed of alpines. I dare say I shall have as much seed as will sow half a rood of land; it is at this moment looking very fine, and is quite ripe.

The seed of the auricula is tardy in vegetating, and the young plants are of very slow growth, and will seldom flower till they are two years old; after that, if planted in good rich soil, they grow and spread rapidly enough. I would therefore advise you to sow your seed as soon as it is ripe; that is, about the latter end of July or early in August; get the plants as forward as you can in the autumn, keep them in a cool frame during winter, and plant them out in beds of good rich loamy soil in the spring. By so doing, you will gain a season, as most of them will bloom the spring following that in which you planted them out; or in about twenty months from the time of sowing your seed.

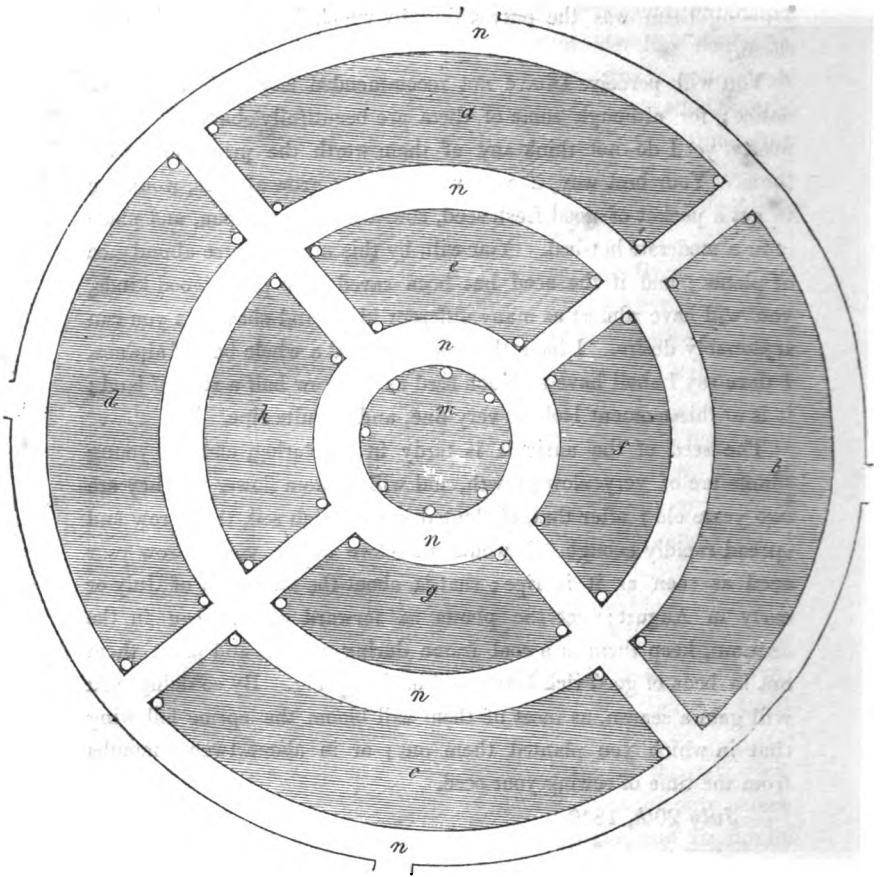
July 20th, 1840.

ARTICLE III.

PLAN OF A ROSARY.

BY AZALEA.

HEREWITH I send a plan of my rosary, which though not yet by any means complete with plants, has been, and still is, in very great beauty. There are forty iron rods (*o*) to support pillar roses. In the centre and up the sides of the walks they are connected at top, forming a dome with arches, &c. &c.



- a*, Contains seventeen kinds of Moss Roses.
b, " " Perpetual Roses.
c, " " French Roses.
d, " " Bourbon Roses.
e, requiring ten kinds.
f, " "
g, contains ten hybrid Provence Roses.
h, requiring ten kinds.
m, contains six hybrid China Roses.

I have, I believe, some of the best kinds of Moss, Bourbon, Perpetual, Hybrid, China and French Roses, each in their different beds, and not two plants the same, but are three compartments to be

cleared in the autumn, viz., *h*, *e*, and *f*, as marked in the plan, each of which will require ten kinds; and I wish to be advised what description of roses to fill them with. I have also to get a dozen or sixteen pillar roses to replace some that are not approved, and should be glad to have the names of those now considered the best.

July 17th, 1840.

ARTICLE IV.

ON A COVERING OF CANVAS SUITED FOR A FRAME FOR WINTER PROTECTION OF GERANIUMS.

BY S. A. H.

As many of your Geranium growers may find glass frames for winter protection too expensive, I beg to inform them, through the medium of your valuable work, that canvas may be made as transparent as the best tracing paper in the following manner:—

Take two parts by weight of resin, one part of hog's lard. Melt them well together, and when thoroughly incorporated, spread it over the surface of your canvas (previously stretched horizontally) by means of a very hot iron, *but not so hot as to burn the fabric.*

It is presumed that frames made with canvas thus prepared will possess all the qualities, short of glass, required by the geranium grower. I hope this communication will be of use to some of your readers.

S. A. H.

Vicarage near Arundel.

July 27, 1840.

[We believe that this prepared canvas cover would be found very useful too, as affording a trifling shade to screen flowers from powerful sun, whilst at the same time a due degree of light would be admitted.—CONDUCTOR.]

ARTICLE V.

THE RIVAL YELLOW DAHLIAS.—“ARGO,” “DEFIANCE,” AND
“HENRIETTA.”

BY AN AMATEUR GROWER OF DAHLIAS.

THOUGH a subscriber, I have never hitherto ventured to occupy your pages, and even now the request to be allowed to do so is made with great reluctance. As an ardent admirer of the Dahlia, however, I am anxious to make a few remarks on the rivalry at present existing amongst the above-named varieties. “War to the knife” has been waged, and we may soon expect to have the victor proclaimed. At the outset I will premise that I write with no desire to injure the claims of one or other in the forthcoming contest; for, though I am not entirely without an opinion on their individual merits, yet, being anxious that the attempt on the part of the patrons of their respective favourites to bring them into fair competition should not be prejudiced, I feel I shall, by abstaining from the expression of that opinion, only second the wish of every impartial person to see them placed solely on their own merits, and not on the fluctuating ground of private, and perhaps party opinion. The object rather which I—in common I trust with every one—have in view, is to obtain such a trial of the merits of these dahlias as shall at once satisfy the public of their relative position.

At present how does the question of superiority stand? We have Widnall’s Argo, Cox’s Defiance, and Begbie’s Henrietta, each pronounced “*the* most perfect and certain yellow dahlia yet raised!” Each grower represents *his* yellow dahlia as the *best*! How, under such circumstances, could a person who had perhaps never, previous to the commencement of this season, seen one or the other, select the *best*, in case he was desirous of having only *one*? He must either have left the selection to the caprice of others, or have been content to await the decision of the present season. The question then comes, how is this decision to be obtained? Only by frequent competition, and under circumstances where all possible ground for obtaining an undeserved premium can be removed. Several proposals have been made to bring these competitors face to face at the principal exhibitions, and some challenges have been publicly given by growers of one variety to growers of the other

varieties united. The *first* is unquestionably the surest mode of contesting the merits of the dahlias: on the *last* I will make a few remarks by and by.

With regard to the proposal to bring the dahlias together at the principal exhibitions throughout England, it is desirable that every latitude and facility should be given with a view to obtain a just estimate of each variety. Mr. Widnall has placed at the disposal of The Royal South London Floricultural Society, and of (I think) The Birmingham Floricultural Society, a prize of five pounds each, to be awarded for the best *single* bloom of any yellow dahlia. May I be allowed to suggest, that if the prizes were to be awarded for the best *two* blooms of any yellow dahlia, the judges being instructed to place the next best two unsuccessful varieties side by side with the successful one, the public would be enabled with more accuracy to determine the comparative merits of each than is possible if the decision is to be dependent on the result of a trial of *single* blooms; for it is quite possible that one of these three may be *uncertain*, *occasionally* only producing a flower of great unrivalled excellence, whilst at other times throwing out the most abortive blooms,—hardly possessing a single good character. And this surely is a *lusus nature*,—a freak of nature, which Dahlia-growers cannot recognise. In this case, or even with dahlias of a less objectionable character, we are more likely to discover the failings when *two* blooms are exhibited together, than when the chances of detection are diminished.

The proposal of Mr. Widnall is so framed as not to confine the contest to the seedlings above named, any other yellow dahlia being admissible.

Mr. E. P. Dixon, of Hull, has however offered to give a prize at the open Dahlia show, to be held at the Botanic Garden in that town on the 2d of September, for two blooms of the best Yellow Dahlia sent out in 1840. I know not the terms upon which it is intended this prize should be contested. Is it allowable for two persons to combine and produce blooms for competition? If so, is it competent for the judges—in case the persons owning the best two blooms should have failed to combine and set up their blooms in the same stand—to select from the various stands those fulfilling the required conditions of their belonging to one and the same variety, and of their having been sent out in 1840? This might be per-

mitted, and would facilitate the object in view, and might have been of service at the Royal South London, and at Birmingham, had *two* instead of *one* bloom been the minimum named. This suggestion may be lightly esteemed, or even repudiated, by many. Doubtless it would be a very absurd one, where, as on all other occasions, the contest lies between one grower and another,—between one *system of cultivation* and another; but where, as in the present instance, the trial of one *variety* against another is what we are looking for, and where we are anxious that all should be placed on the most advantageous terms for competition, I think there ought to be a combination amongst the respective exhibitors of each, as the step most conducive to the attainment of a full and satisfactory trial.

In all trials of strength by mains, as in mains of greyhounds, &c., the method here proposed is universally adopted, without any reference or stipulation being made as to *breeder*, or anything but *county*. In like manner, I conceive, we ought to proceed in this instance, without any stipulation being made as to *grower*, or anything but *variety*.

I stated above that challenges have been publicly given by growers of one variety to growers of the other varieties united; permit me to make a remark or two on that point. Amongst the persons alluded to is the name of an individual who subscribed an Article in the last Number of your excellent periodical. In that Article is given a challenge by Mr. Sharpe, gardener to Mr. Mainwaring of Coleby Hall, near Lincoln, to exhibit Argo against either Defiance or Henrietta at the Grantham show. The result, however, of the trial proposed *may* still leave us where we are—in doubt, and *will* do so if Argo should come off only second best; for the defeat of Argo would be no criterion of the superiority of its opponent, and *that* for the following reasons: Mr. Sharpe grows *one*, perhaps more than one plant of Argo; his challenge, however, extends to the *whole stock* of Defiance and Henrietta grown in the county. This surely cannot be advantageous ground to take; it cannot be fair towards himself, fair towards Mr. Widnall. If, as they are *said* (mind *said*) to be, these varieties are equal in merit, it cannot be prudent on the part of Mr. Sharpe to risk the reputation of Argo so far even as that single trial goes, and to pit the blooms of one or two plants against a phalanx of Defiances and Henriettas. We all have

experienced the uncertainty attending the growth of the dahlia,—the disappointment occasioned by a boisterous wind ; a defective petal or two ; a bloom too far gone, or one not sufficiently blown in the centre ; and such like unavoidable occurrences. We all know how many plants of first-rate varieties we pass by on the morning of an exhibition without finding one bloom upon them that may be said to possess every requisite for being placed in a stand, *alone*, against twenty or thirty competitors. If Mr. Sharpe had challenged any single grower of Defiance or Henrietta to exhibit blooms against his Argo, he would have done what he was fully entitled to do, and set an example which it is desirable should be generally followed.

Mr. Widnall would, I doubt not, gladly exhibit Argo against either or both of his rivals ; and the well-known excellence of his blooms, and the extent of his stock of plants of Argo, would fill every one with the expectation of witnessing the best blooms that it can be made to produce. But we are not all Cæsars ! What Mr. Widnall may do *we* cannot emulate. How mortified would Mr. Sharpe and his friends feel themselves on the morning of the exhibition, if an accident, similar to one of those above named, should destroy his hopes of establishing the fame of Argo ! How little grateful would Mr. Widnall feel towards Mr. Sharpe on learning the defeat of his favourite Argo, a defeat more readily accounted for by himself than obliterated from the minds of those who might be guided by the result of the trial—which, virtually, was no trial at all. However much Mr. Widnall might applaud the partiality and zeal of Mr. Sharpe, he could not but regret the indiscretion of which he had been made the victim. I wholly disdain any intention of wounding the feelings of Mr. Sharpe : my observations are not intended to be directed against him personally, but against the mode of warfare which he propounds.

What I say of Argo is equally applicable to Defiance and Henrietta, and I cannot but think that the growers—one and all—of these dahlias would feel themselves more honoured by the breach than the observance of such trials as Mr. Sharpe proposes ; at any rate they would protest against such trials being considered as decisive of the comparative merits of their respective dahlias. I would recommend that the several Committees of open shows, and of societies, should offer prizes for the best two blooms of any yellow

dahlia sent out in 1840, and require the judges to class the unsuccessful varieties.

“ Palmam qui meruit ferat.”

“ A clear stage and no favour,”

and we shall soon know how to place Argo, Defiance, and Henrietta.

Lincolnshire.

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

1. *SPREKELIA CYBISTER* VAR. *BREVIS*. (Bot. Reg. 33.) Amaryllidaceæ. Hexandria Monogynia. The Tumbler Sprekelia. Imported from Bolivia by Mr. Knight, Nurseryman, King's-road, Chelsea. It has bloomed in the garden of the London Horticultural Society. The term Tumbler has been applied to the flower from the very singular precipitation of the buds in their progress towards expansion, and the final perpendicular posture of the lip of the flower. The flower scape has from four to six flowers. Green with red streaks. They are more singular than beautiful.

2. *TRADESCANTIA IRIDESCENS*.—Iridescent. (Bot. Reg. 34.) Commelinaceæ. Hexandria Monogynia. A native of Mexico, and a half-hardy perennial. The plant is a stemless one; the flowers, too, rise just above the foliage; they are produced in profusion, each being about an inch and a half across, of a violet purple colour.

3. *EPIDENDRUM VITELLINUM*.—Yolk of egg Epidendrum. (Bot. Reg. 35.) Orchidaceæ. Gynandria Monandria. A native of Mexico. The flowers are produced on terminal spikes. Each flower is about an inch and a half across, of a fine orange colour.

4. *MORINO LONGIFOLIA*.—Long-leaved. (Bot. Reg. 36.) Dipsacæ. Diandria Monogynia. This species was discovered by Dr. Wallich on the mountains of the north of India. It is an hardy herbaceous perennial, the flower spikes rising to the height of two or three feet. Each blossom is about three quarters of an inch across, of a beautiful bright rose colour, edged with white. The plant soon suffers from wet, but thrives freely in a dry situation.

5. *AGANASIA PULCHERRA*.—The Pretty. (Bot. Reg. 32.) Orchidaceæ. Gynandria Monandria. A native of Demerara. Imported by Messrs. Loddiges, with whom it has flowered. The flowers are produced in spikes, each blossom being near two inches across. White with a large spot of yellow upon the lip. They very much resemble those of a *Maxillaria*.

6. *MYANTHUS SPINOSUS*.—Spine-bearing. Fly Wort. (Bot. Mag. 3802.) Orchidaceæ. Gynandria Monandria. A native of Brazil, discovered by Mr. Gardner. The flowers are produced very numerously on erect racemes. Each flower is about two inches and a half across; green, very beautifully spotted with a reddish brown. The edge of the lip is prettily fringed with white hairs.

7. *STENOMESSON LATIFOLIUM*.—Wide-leaved. (Bot. Mag. 3803.) Amaryllidaceæ. Hexandria Monogynia. Introduced from Lima to Spofforth in 1837, and bloomed at the latter place last year. The flowers are produced in a scape

four or five in each, of a fine yellow colour. Each blossom is about two inches long, the mouth of the corolla being five-parted, and about an inch across.

8. *MACROPODIUM NIVALE*.—Siberian. (Bot. Mag. 3805.) Cruciferae. *Tetradynamia Siliquosa*. (Synonym, *Cardamine nivalis*. *Arabis nivalis*.) A native of the Altaic mountains. It is a hardy perennial creeper. The flowers are produced in spikes, petals white, very small; sepals of a pale green.

9. *ONCIDIUM HUNTIANUM*.—Mr. Hunt's. (Bot. Mag. 3806.) Orchidaceae. *Gynandria Monandria*. A native of Brazil, sent from thence to the Woburn collection. The flowers are produced on a compound raceme. Each flower is about an inch across, white beautifully spotted with red.

10. *MILTONIA SPECTABILIS*.—Showy. (Pax. Mag. Bot. 97.) Orchidaceae. *Gynandria Monandria*. Imported from Brazil by Messrs. Loddiges, with whom it has bloomed. The plant has always a sickly stunted appearance, but its flowers are splendid; they are produced in a scape, each blossom being near four inches across. The sepals and petals are of a greenish white. Labellum of a violet purple.

11. *ECHEITES SUBERECTA*.—Suberect. (Pax. Mag. Bot. 101.) Apocynae. *Pentandria Monogynia*. A hothouse plant, a native of the West Indies. It is an evergreen twining shrub, flowering very freely, and is highly ornamental. The flowers are produced in clusters, each blossom being from two to three inches across, campanulate-shaped, of a fine deep yellow colour.

12. *BOUARDIA ANGSTIFOLIA*.—Narrow-leaved. (Pax. Mag. Bot. 99.) Rubiaceae. *Tetrandria Monogynia*. This very pretty flowering species we saw in bloom in the collection of Mr. Low at Clapton, who raised it from seeds sent from Mexico. The flowers are, on the outside, a little paler than those of the well-known and justly admired species *B. triphylla*, and the inside is of a lilac-pink colour, producing a very pretty contrast. The plant was introduced some years back into this country, but is very scarce. It ought, however, to be in every greenhouse or conservatory. It flourishes, if grown in the open ground, during summer. It is (like all the *Bouvardias*) best increased by cuttings of the roots, which strike very freely.

13. *AQUILEGIA GLAUCA*.—Glaucous Columbine. (Bot. Reg. 46.) Ranunculaceae. *Polyandria Pentagynia*. A hardy perennial. Imported from the Himalaya mountains by the East India Company. It grows and blooms as freely as the common Columbine. The flower stems rise to about two feet high, and the flowers are deliciously sweet, of a greenish yellow colour. It blooms in May and June.

14. *BATEMANNIA COLLEYI*.—Mr. Colley's. (Bot. Mag. 3818.) Orchidaceae. *Gynandria Monandria*. A native of Demerara, first discovered by Mr. Colley, the Collector for James Bateman, Esq., Knypersly Hall, Cheshire, in compliment to whom it is named. Colour of the sepals and petals greenish, tinged with purplish red. Lip whitish, dotted inside with red; column white, freckled with red. The scape produces many flowers, each blossom being from two to three inches across.

15. *BIGNONIA TWEEDIANA*.—Tweedie's Bignonia. (Bot. Reg. 45.) Bignoniaceae. *Didynamia*. *Angiospermia*. This very pretty flowering Bignonia was imported into this country from Buenos Ayres, in 1838, by the Honourable W. F. Strangways. It is a greenhouse plant, growing very freely in loam, peat, and sand. It appears to thrive best when planted out in the border of a conservatory, where it grows rapidly, soon covering a considerable space. Each flower is about three inches long by two across at the mouth, of a golden yellow colour. It is a very desirable plant as a greenhouse or conservatory climber. It is very probable that it would thrive and bloom well if planted against the open wall during summer. It appears by the statements of M. de Candolle, in his "Revue de la famille des Bignoniaceae," that two hundred species are known by him. It is much to be regretted that more of this beautiful genus are not sent to this country, especially as so many Europeans visit the native country.

16. *BRASSAVOLA GLAUCA*.—Glaucous. (Bot. Reg. 44.) Orchidaceae. *Gynandria Monandria*. It has been found growing near Xalapa in Mexico, and

near Vera Cruz, also at Guatemala. Mr. Skinner sent it from the latter place, and calls it a splendid white flower, with a most extraordinary strong aromatic fragrance. Sepals and petals are of a yellowish green; lip white, with the end tinged with yellow. It has not proved to be so fragrant in this country as expected by Mr. Skinner's note of the plant. The plant is found as easy to cultivate as other of the Mexican Orchidaceæ, but has not usually flowered freely; but in the garden of the London Horticultural Society a method has been adopted with it, that induces it to bloom most satisfactorily. Dr. Lindley gives a note relative to it as furnished the learned Doctor by Mr. Fortune, under whose management it appears the Orchidæ are at the Gardens; it is as follows:—"At the base of every leaf there is a bud, and from the leaf itself the flower springs, which, in many instances, proves abortive, apparently owing to the luxuriance of the bud at its base. As a proof of this—after many fruitless attempts to make this plant flower—one of those buds was removed, which allowed the sap intended for the nourishment of that bud to go to the formation of the flower, and the result was the production of a fine one. In the following season the plant was covered with flowers, acting upon the same principle, though not at the expense of its buds. This was done by keeping it dry, and not allowing the buds at the base to grow much until the flower stems were so far advanced as to be out of danger." This mode of treatment, adopted with other shy flowering kinds, would probably be equally successful.

17. *CATLEYA ACLANDIÆ*.—Lady Acland's. (Bot. Reg. 48.) Orchidaceæ. Gynandria Monandria. This beautiful flowering species was received from Brazil in 1839, and under the skilful management of Mr. Craggs, the gardener to Sir Thomas Acland, at Killerton, where the plant had been sent to, it has bloomed. The sepals and petals are of an olive green, spotted and striped with dark reddish-brown. The labellum is of a beautiful violet purple colour, having towards the origin a tinge of white and a small spot of yellow. Each flower is about three inches across.

18. *CEREUS LATIFRONS*.—Broad stemmed. (Bot. Mag. 3813.) From the fine collection of Cactææ, grown in the Nursery of Messrs. Mackie and Co., Norwich. It is a tall growing plant, producing its flowers from the edges of the broad and flat stems. The flower is very large, the tubular part being six or more inches long, green, slightly tinged with purple. The petals are of a pure white, the mouth of the flower being about six inches across. It flowers in August.

19. *GESNERIA MOLLIS*.—Soft-leaved. (Bot. Mag. 3815.) This species has been introduced as long back as 1819, but is not as generally grown as it certainly deserves. The flower-stems rise to about half a yard high, terminating in umbels of flowers from five to ten in each. The flower is of a fine red, having the mouth and limb of a pretty orange colour, spotted with red, each blossom being upwards of an inch long.

20. *LELIA AUTUMNALIS*.—Autumnal. (Bot. Mag. 3817.) Orchidaceæ. Gynandria Monandria. (Synonym *Bletia autumnalis*.) Plants of this beautiful flowery species were sent by Mr. Parkinson to the Woburn Collection in 1838, where it has bloomed under the skilful management of Mr. Forbes. The scape rises to two feet high, terminating with from two to four large fragrant and showy flowers, principally of a fine bright-rose colour. Lip whitish at the sides, tinged too with purple and greenish yellow. Each flower is about four inches across.

21. *MALVA PURPURATA*.—Purple-flowered mallow. (Bot. Mag. 3814.) Malvaceæ. Monadelphia Polyandria. A native of Chili, and a handsome, hardy perennial, blooming in this country from June to August. The flowers are solitary, but form a pretty corymbose head. They are of a pretty purple-lilac colour, lighter at the centre. Each flower is about an inch across. It is a very pretty border plant, well deserving a place in the flower garden.

22. *STYLIDIUM FASCICULATUM*.—Fascicled-leaved. (Bot. Reg. 3816.) Stylidæ. Gynandria Monandria. In the Glasgow Botanic Garden this beautiful

species grows to the height of two feet, and has spikes of flowers six inches long; white, tinged with red. The plant has been considered to be only annual, but its duration in the Glasgow garden is more. It is a very charming plant, well deserving cultivation.

IN NURSERIES, &c.

1. *ARISTOLOCHIA CILIARE*.—This singular flowering species, a native of Brazil, we recently saw in bloom in the hothouse at Messrs. Henderson's, Pine Apple Nursery. It is of a twining habit, flowering freely. The singular formed flower has a greenish tubular pouch, and a dark brown lip chequered with green; each flower is about two inches long and one across. It is very interesting.

2. *MALVA CAMPANULATA*.—Bell-flowered Mallow. In profuse bloom at the Pine Apple Nursery. The flower stems rise to about a foot high, blooming in spikes, of ten or a dozen flowers on each, of a pale lilac-pink colour. It flourishes well in the greenhouse, and will do equally so in the open border during summer.

3. *RHODODENDRON GUTTATUM*.—This beautiful flowering kind has been in profuse bloom in the Conservatory of Messrs. Rollisson's, Tooting Nursery. The flower is large; white, beautifully spotted with dark. The plant is quite hardy, though one is grown in the Conservatory.

4. *DILLWYNIA CLAVATA*.—In profuse bloom at Mr. Knight's Nursery, King's Road, Chelsea. It is one of the valuable introductions from the Swan River Colony, by Mr. Mangles. The flowers are of a deep yellow colour, very showy.

5. *CYCLOGYNE CANESCENS*.—In bloom in the Clapton Nursery. The plant is very like an *astragalus* in form and habit, blooming very profusely. It grows about half a yard high. The flowers are of a violet-purple, with darker purple wings. It is well deserving a place in the green-house. During summer it will flourish if grown in the open border.

6. *BRACHYCOME IBERIDIFOLIA*.—In bloom at the Clapton Nursery. It is from the Swan River Colony. The flowers are produced numerously, on slender stems near a foot high, having an aster-like appearance, and are very showy, of a pinkish lilac colour. It is probably an annual.

7. *EPIPHORA PUBESCENS*. An orchideous plant, lately bloomed with Messrs. Loddiges. Scape rises about six inches high; flowers of a bright yellow streaked with red.

8. *SPREKELIA GLAUCA*. A beautiful new *Jacobæa* Lily from Mexico. The flowers are paler than the old and well-known *Jacobæa* Lily.

9. *PASSIFLORA VERRUCIFERA*.—A green-house species, which has bloomed in the collection of Mr. Harris at Kingsbury. The flowers are pale green, with a bright purple crown.

10. *CIRRHOPE TALUM PICTURATUM*. An Indian plant, the habit of *Bolbophyllum*, having purple flowers stained with dark red. Bloomed at Messrs. Loddiges.

11. *CIRRHOPE TALUM AURATUM*. — From Manilla to Messrs. Loddiges. Flowers much like the last species, but fringed with yellow.

12. *ONCIDIUM PALLIDUM*.—From Brazil. It has bloomed in the collection of Messrs. Lucombe, Price, and Co., Exeter. Flowers very pretty, green and red.

13. *STANOPEA MARTINIA*.—From Mexico. It was bloomed with Mr. Bateman at Knypersly. It is one of the most magnificent of this very splendid flowering genus. Sepals straw colour, slightly dotted; petals white with large spots of crimson; lip pure white, except a slight discolouring at the base. The horns of the lip are peculiarly striking, appearing like elephant tusks.

14. *EUTHALIS MACROPHYLLA*.—From the Swan River. It is a fine herbaceous plant, the stem stout, fleshy, rising three to four feet high; leaves deep green, six inches long; flowers yellow and brown, produced in loose panicles. Flowered in the garden of the Horticultural Society.

15. *DENDROBIUM REVOLUTUM*.—From Singapore, and bloomed with G. Barker, Esq., Birmingham. Flowers straw-coloured; lip marked with brown lines.

16. *DENDROBIUM TERRES*.—From Singapore to Messrs. Loddiges. Flowers whitish, fragrant; lip stained with deep orange.

17. *DENDROCHILUM FILIFORME*.—From Manilla, and has bloomed with Mr. Bateman. It has the habit of a *Bolbophyllum*. Flowers small, greenish brown. The first of the genus which has bloomed in Europe.

18. *ABUTILON VITIFOLIUM*.—A noble evergreen plant, which proves to be hardy in Ireland. It is a native of Chili. In Ireland it forms a small and handsome tree, and has stood in an open south border for three years. The flowers, when fully expanded, are white, but in drying change to an azure blue. Each flower is about three inches in diameter.

19. *SALVIA HIANS*.—A beautiful flowering, hardy perennial, growing to two feet high. The flowers are large, of a deep blue, with a white lip, very handsome. The Directors of the East India Company have introduced it.

20. *TRIFOLIUM INCARNATUM*.—An herbaceous perennial, suited for a rock work. Flowers lemon-coloured.

21. *CLEOME LUTEA*.—A hardy herbaceous biennial plant. Flower stems rise to two feet high, and terminate in clusters of yellow flowers. It has bloomed in the Horticultural Society's garden.

22. *ACONITUM OVATUM*.—A hardy aconite, having purplish green flowers.

PART III.

MISCELLANEOUS INTELLIGENCE.

HORTICULTURAL EXHIBITION.

(Continued from page 180.)

PELARGONIUMS.—*Russell's No. 1*. Lower petals nearly white, upper ones blush, having a large dark spot. Of first-rate form.

Roseum elegans. Lower petals blush, upper ones very bright rose, having a large dark spot. Of very good form.

Glowworm. Upper petals bright scarlet, with a moderate-sized dark spot; the lower petals of a lighter scarlet.

Sylph. Light blush, being gradually whiter to the centre. Upper petals fine dark spot. The petals are of fine form, but the innermost petal of the upper two comes so far across the other as to conceal half, at least, of the dark spot; in all other respects it is a fine flower.

Splendidum. Fine scarlet-red, somewhat lighter towards the centre, the upper petals having a large clouded spot. The flower is of a large size.

Lady Carlisle. Upper petals fine scarlet, having a large dark spot lined at the edges. Lower petals fine blush. The flower is very showy, but rather too loose.

Colossus. Upper petals purple-crimson, having a large spot. Lower petals pink. Good form.

Grand Duke. (Gaines's.) Fine rosy-crimson, upper petals having a large spot. Flower of first-rate form and superior size.

Beauty of Ware. An older sort, but was shown in nearly every lot exhibited, having a most conspicuous appearance. The flower is of a bright rosy-purple, and produced most profusely.

Rosabella. (Gaines's.) Fine bright rosy-red, large flower.

Gauntlet. Light scarlet, delicate petals, and large flower.

Coronation. (Garth's.) Upper petals rosy-scarlet, having a large dark crimson clouded spot lined at the edges. Lower petals a fine rose. Flower of a very good form.

Joan of Arc. We gave a figure of this last year, and at the exhibitions still ranks among the most superb.

Lady Selkirk. White, upper petals having a dark clouded spot; very fine form.

Sultan. Fine rose, upper petals having a large dark spot; fine formed flower.

Matilda. White, tinged slightly with a pretty rose, upper petals having a large spot. A very fine formed flower.

Lady Palmer. Upper petals of a rosy-crimson, having a large dark-clouded spot. Lower petals, of a fine rosy blush. Flower of a first-rate form.

Purpurea grandiflora. Upper petals having a large dark spot. Flower of a very good form.

Mabel. Fine light blush, becoming gradually whiter to the centre. Upper petals having a large velvet spot. Flower of first-rate form.

Hope. Beautiful flesh-coloured, upper petals having a large dark-clouded spot. Flower of a fine form.

Guardman. Upper petals of a fine crimson, having a large dark spot. Lower petals of a pretty pink. Flower of a very fine form.

(Pelargoniums to be continued in our next.)

Thunbergia aurantiaca. A plant eight feet high, trained to a wire frame, very profusely in bloom; and its beautiful orange-coloured flowers gave it a pretty effect. This kind appears to grow much more vigorously than the buff and white. The plant was exhibited by Mr. Green, gardener to Sir E. Antrobus.

Clerodendron. New Species, having bright scarlet flowers. The plant was six feet high. Exhibited by Mr. Bruce, gardener to Boyd Miller, Esq.

Ixora coccinea. A plant five feet high, having twenty fine heads of its beautiful flowers, was exhibited by Mr. Pratt, gardener to W. Harrison, Esq.

Gompholobium polymorphum. A plant trained to a frame three feet high, and near three across, most profusely in bloom; also exhibited by Mr. Pratt. The plant was peculiarly striking; it deserves a place in every greenhouse or conservatory.

Sieludia canescens. A pea-flowered plant, of a pretty lilac colour, having a dark centre.

Ixora crocata. A plant three feet high, having numerous heads (about six inches across) of flowers of an orange-buff colour, producing a very agreeable effect in contrast with the scarlet.

Pelargonium, Joan of Arc. A plant four feet high and six feet across, having more than 300 fine heads of flowers, was exhibited by Mr. Cock, of Chiswick. The plant was clothed with foliage to the edge of the pot, that not any portion of a stem could be seen.

VISITS TO GARDENS AND NURSERIES.

LONDON HORTICULTURAL SOCIETY GARDENS, July.—*Rosa ruga* and *Rose de Lisie* are trained up posts, as what is termed Pillar Roses, they grow very rapidly, and bloom most profusely. The flowers being large too produce a fine effect. Each kind are very hardy and very suitable for the purpose.

Jasminum revolutum. A large plant of it trained against an open wall, finely in bloom, its beautiful yellow and fragrant blossoms being very showy and agreeable.

Yucca gloriosa. A large plant growing in a bed on the lawn was showing finely for bloom, the flower-stem being about seven feet high.

Ligustrum Nepalense. The foliage is very pretty, and the plant being trained against the wall several feet high, shows it to advantage.

Lavatera triloba. This very profuse blooming plant trained against the wall to the extent of ten feet wide, and proportionately high, produced a very showy appearance. It is well worthy such a situation.

Ziziphus vulgaris. The foliage is of a beautiful shining green, and being trained against the wall ten feet by eight, showed it to advantage.

Spirea arifolia. In a bed on the lawn there is a shrub which is about twelve feet high, and equally broad, in most profuse bloom. Its beautiful loose tufty heads of yellowish-white flowers give it a fine and peculiarly interesting appearance. The plant is a rapid grower, may be obtained very cheap, and deserves a place in every shrub border or bed.

Lotus albidus. This plant was growing in the New Conservatory. The flowers are somewhat larger than the well-known *L. jacobæus*; white with rose-coloured streaks, in contrast with the old species gives a pretty effect.

Russelia multiflora. The leaf much resembles that of a *Gardoquia*. The flowers are of a deep-red colour, produced very numerous, in clusters of from eight to eighteen. Each blossom is a little more than half an inch long.

Solanum lancifolium. This is by far the handsomest flowering species we ever saw. Each flower is about two inches and a half across; flat, of a fine blue, and large fine yellow anthers, giving, in contrast, a pretty effect. It deserves a place in every greenhouse or conservatory. It is probable it would bloom freely in the open border during summer.

Silene laciniata. The fine scarlet flowers, two and a half inches across, beautifully fringed at the edges, having a strong resemblance in form to *Lychnis Bungeana*, was finely in bloom in the Conservatory. It well deserves a place in every greenhouse or open border during summer.

AT MR. GROOM'S, WALWORTH.—*Verbena Arraniana grandiflora*. Similar in colour to *V. Arraniana*, but much larger flowers.

Verbena rugosa purpurea. This variety is a great improvement on the old *V. rugosa*, the fine purple heads being very showy.

Agapanthus umbellatus albus. This is a beautiful addition grown in contrast with the old blue-flowered *A. umbellatus*.

Double White Chinese Primrose. This plant is well worth having, though 15s. is asked for a plant.

Agapanthus maximus. The flowers are said to be similar in form, &c., to *A. umbellatus*, but of a pretty purple colour.

Dianthus splendidissima. Growing in the open border, and blooming very freely. The flowers are double, of a splendid crimson colour. It deserves a place in every flower border.

Lilium atrosanguineum, &c. In an open bed in the grounds we saw a great quantity of seedling Lilies in fine bloom. They were from seed saved from impregnation of *atrosanguineum* with *bulbiferum*, and the reverse. The flowers of many of the progeny were much superior to the parent kinds, both as to size and colour, several of them being beautifully freckled. They well deserve a place in every flower-garden.

Auriculas. The stock, in quantity and vigour, exceeds all we ever saw elsewhere.

AT MESSRS. LOW AND CO., CLAPTON NURSERY.—*Commellina*. A new species with blue corolle, and yellow feathery anthers, producing a very pretty effect.

Brachycome iberidifolia. The flowers are of a pretty star-like (aster) form, and are produced in vast profusion. The centre is yellow. The plant blooms nearly the whole of summer. We saw it in the open border, and it merits a place in every flower-garden. It grows about two feet high.

Cineraria Shwiana. The flowers are of good size, deep rose coloured, having a white centre, very pretty.

Chorozema spartioides. The flowers of this new species are of a deep orange, having a dark spot, with a scarlet keel. It deserves a place in every greenhouse.

Brachycome, New Species. Another of the pretty star-formed flowering plants, with white flowers, equally deserving a place in every flower-garden.

Lilium lancifolium roseum, and punctatum. The very splendid specimens in

bloom, growing in the border of Messrs. Loddiges, Camellia House, are well worth going to see. The flower stems are about ten feet high.

HORTICULTURAL SOCIETY.

Tuesday, August 4th.—A great number of very fine specimens of stove and greenhouse plants were exhibited, but the orchidaceous excelled all the rest in beauty and abundance of bloom; the scent from some of these species was so powerful as to be almost overpowering on first entering the room. The greatest novelty shown was a new species of *Cobea*: this genus has been hitherto seen in only one species, the *Cobea scandens*, a well-known and very pretty climber; the species exhibited on the present occasion is a native of Mexico, with flowers of a pale yellow, also a climber, and called *C. stipularis*. A very beautiful specimen of *Miltonia spectabilis*, perhaps one of the very best species of Orchidaceæ, was shown by Mr. W. Dean, gardener to S. Rucker, Esq., F.H.S.

Mrs. Lawrence had a collection, containing a very fine specimen of *Peristeria elata*, which has received the name of the Holy Ghost plant, from the distinct resemblance to a dove presented by the internal part of the flower: the plant shown had several spikes of bloom five to six feet high. *Peristeria maculata* and *Maxillaria Rollissoni*: two plants of a new variety of *Gongora*; two equally fine specimens of *Oncidium lanceatum*, *Acropera Loddigesii*, *Zygopetalum maxillare*, *Bifrenaria atropurpurea*, *Mahernia pinnata*, *Ixora coccinea*, *Clerodendron paniculatum*, and *Melastoma malobathricum*; also single specimens of *Statice foliosa*, and *Silene laciniata*.

Mr. Redding, gardener to Mrs. Marryatt, of Wimbledon, brought a collection of noble specimens of *Russelia juncea*, *Gongora* sp., *Oncidium luridum*, *Epipactis palustris*, *Pelargonium tricolor*, *Crinum spectabile*, and *Tristania nerifolia*.

Mr. Pamplin, nurseryman, Hornsey, a collection of Heaths, consisting of the following varieties, *inflata*, *inflata alba*, *jasminiflora*, *eximia*, *Bandona*, *ampullacea*, *Swainsonia ovata*, *ampullacea*, *vittata*, *Clusiana*, and one or two seedlings, the whole of them well grown and blooming freely.

Mr. Pratt, gardener to W. Harrison, Esq., Cheshunt, exhibited a fine plant of *Erica Kweriana*, about six feet high; also *Pimilea hispida*, *Gesneria splendens*, and *Erica ampullacea*.

Mr. Dean, gardener to J. Bateman, Esq., had blooms of *Stanhopea Wardi*, *Acropera Loddigesii*, and some other orchidæ.

Mr. Young, nurseryman, Epsom, exhibited a new and handsome species of *Gloxinia*, with bright red flowers.

Messrs. Colley and Hill, Hammersmith, two new *Pelargoniums*, called *Cleopatra* and *Ajax*.

From the Society's garden were *Trichopilia tortilis*, *Galeandria Baueri*, *Silene laciniata*, *Gasteria conspurcata*, *Chironia frutescens*, and *Portulacca Thellusonii*.

QUERIES.

ON CUTTING DOWN RHODODENDRONS, AND A LIST OF SOME OF THE BEST PILLAR ROSES.—I should be glad to know the best time of the year for cutting down large Rhododendrons. I have some ten or twelve feet high that are getting to look old and ragged, and should be sorry to spoil them by injudicious treatment. Any information in the next number of the Cabinet will greatly oblige

July 17, 1840.

AZALEA.

P. S. I am wishful to procure eighteen of the best pillar Roses to replace some that I now have in my rosary which are not approved. I should be glad to have the names of those which are considered the best, and description of colours, &c.

[The best time to bend down the Rhododendrons is in the Spring, when they are about to push shoots; the young wood that is produced often being vigorous has then a sufficient season to get well ripened in, but if cut late in summer, the

shoots being tender are often destroyed by the severity of winter, and the old plant in great danger of dying from it. Such instances have come under our notice; but when done as early as advised success will follow. We hope some of our extensive Rose growers will furnish our correspondent with the list requested.—CONDUCTOR.]

ON THE BRICK ARNOTT'S STOVE.—Your correspondent in his article upon the "Brick Arnott's Stove," in the July number of the Floricultural Cabinet, invites inquiries; I will, therefore, with your permission, ask him a question or two, as his description (for which I thank him, as will many of your readers) does not exactly meet my case. The first is, what attendance does the stove in question require; may it be left eight or ten hours without the fire going out, as the common Arnott stove may? Is not the removal of the ashes, the stove being actually among the plants, a great annoyance? But the principal thing I would ask is, does your correspondent think that a stove of this kind may be placed with safety to the plants directly under the stage upon which they stand, in a small house like mine, which is only 14 feet long and 10 feet wide, the shelving running from end to end, and of course no other situation could be found for it. Would a stove of the size described by your correspondent be too large to heat a house of the above dimensions? What are the dimensions of the house in which your correspondent's stove is placed? Would it be necessary that the flue should be carried along upon the back wall, or may it make its exit at once, being conducted from the stove direct through the roof? Of what bore is the earthen pipe used for the chimney?

All Saints, Norwich, July 16th, 1840.

N. S.

ON BLACK SULPHUR.—In the "Floricultural Cabinet" for May, to which I have been a subscriber from the first, at page 111, it is said that lime-water mixed with *black sulphur* will extirpate the white bug in hot-houses. Query, what is black sulphur? we do not know it here. Should it not rather have been *black soap*. As I am troubled with the American white bug, an answer in your next magazine will oblige

W. C.

[The black sulphur is more generally known by the chemists as sulphur vivum, or horse sulphur. It is the impure residuum left in the vessel after preparing sublimed sulphur. It is often used by veterinary surgeons. If our correspondent cannot procure the sort, we will with much pleasure send a portion by post on receiving his address.—CONDUCTOR.]

ON BLOOMING LILIUM SPECIOSISSIMUM AND L. JAPONICUM.—Having a few plants of *Lilium speciosissimum* and *L. Japonicum* these three years, without flowering, I would thank you for directions for their successful management. They are growing rather strong this year; would you recommend, as soon as the leaves die down, to take up the bulbs and re-pot them? I am sure a good many of your readers would be glad to get good practical instructions for the culture of those beautiful plants.

Cork, 15th August, 1840.

W. G. B.

[We have seen very vigorous plants of the Lilies at Mr. Groom's, Florist, Walworth; and he informs us "that as soon as the leaves have died down, water is wholly withheld, so as to allow the roots to rest till October, when they are re-potted in rich loam and peat." By this attention we have seen splendid specimens in flower in his greenhouse. Some additional remarks on these and other fine lilies we will obtain and give in our next October number, so that our correspondent's wishes shall be fully met.—CONDUCTOR.]

ON OBTAINING PERFECT SEEDS OF GERANIUMS AND FUCHSIAS, &c.—Will you, or some of your readers, answer the following queries? I have a small collection of Geraniums, Fuchsias, &c. I wish to know the reason why I can't get the seed from them. I have had Fuchsia seed stop on till about half ripe, and then they drop off. Whether Geraniums would keep in a frame out in the garden all winter, if the pots were plunged above the rims in dry saw-dust, and the frame covered up with mats.

A BEGINNER.

Northampton, July 29th, 1840.

[Geraniums and Fuchsias effect seeds very freely if duly attended to. If

the plants are allowed to flag for want of water,—if they are soddened with an undue quantity of water, or be kept in a very high degree of heat, these circumstances will induce the seeds to drop prematurely.

Geraniums, &c., will keep well through winter in a cool frame. They are preserved in many of the nursery establishments by having the frame sunk a foot or so into the ground, and that part of the frame above to be protected by a lining of turfy loam a foot thick or more. The pots are plunged in coal ashes, which absorbs moisture, and keeps dry better than saw-dust; the latter becoming once wet, rots, and produces a great degree of damp in the frame, causing the foliage to decay, and the frost to operate more readily. Straw should be placed over the lights six inches or more thick, upon which the mats should be laid in severe frost; this being done will succeed.—CONDUCTOR.]

If some of the readers of the Cabinet, who can satisfactorily give answers to the many queries inserted in the May number, would do it as early as possible, it would very greatly oblige an

ENQUIRER.

[We hope some of our numerous readers will favour our correspondent. Such attention will, we are sure, give pleasure to the writers, and be useful to our readers, and we hope satisfactory to an *Enquirer*.—CONDUCTOR.]

REMARKS.

ON THE PRANGOS PABULARIA.—An extract from Mr. Moorcroft's Travels appeared some time since in the Floricultural Cabinet, mentioning it as the food of "all the unstable cattle of Ladak," suggesting the probability of its being valuable, if it could be introduced here; a note (it is believed) was added, stating that a very small quantity of the seed would be sufficient to ascertain the possibility of its introduction. Some years since, Dr. Fisher, Imperial Professor of Botany at St. Petersburg, received some seeds of the *Prangos Pabularia* from Dr. Lindley of the Horticultural Society of London, but they did not germinate, and the same was the case with those sowed by the Society itself in various ways at the same time. It is suggested that, by application to Dr. Lindley, some seeds might be obtained, should another importation have been received. The above particulars were accompanied by some seeds of another *Prangos*, *Prangos feniculea*, (given to the writer of the letter referred to, by Dr. Fisher at St. Petersburg;) but it was stated that they were not fresh, and their germination doubtful. The enclosed have been obtained by the kindness of Lady Mary Cathcart; and it has been suggested that if soaked for a night before sowing, it is very likely to make them grow. Mr. Harrison will perhaps be so good as to report their success in the Floricultural Cabinet; and should any other seeds be procured, they shall also be forwarded to him.

July 9th, 1840.

[We very respectfully thank our correspondent for the favour of the above communication and seeds; we have sown them, and will give the result of success or not, as desired. We shall feel additionally obliged by other seeds at convenience.—CONDUCTOR.]

SMITH'S EMPEROR SCARLET GERANIUM.—At the London Horticultural Meeting, held in the rooms on July 6th, a truss of blooms was exhibited, and which was afterwards given us. We counted the flowers on this single head, and they amounted to 134. Each blossom is about an inch across, of a superb scarlet-colour. The head of flowers resembled a moderate-sized hydrangea. We have never seen anything near equal to it in that class of geraniums. Afterwards we went to the nursery of Mr. Smith at Dalston to see the plants, and we found a quantity of them the most robust in growth we ever saw. The foliage of the deepest green, a very large and thick leaf, and headed by the fine flowers, gave them a truly striking appearance. It merits a place in every green-house, flower-garden, or flower-room, and we especially recommend it to our readers.

ON SEEDLING GERANIUMS.—In my last I gave you a description of Mr. Nairn's first beautiful seedling geranium. Since which I sent you our local paper with the authorised report of our splendid May exhibition, in which you will see the silver medal awarded to Nairn's second seedling, (not the one I wrote to you of,) it having lost its flower the day previous, and not shown; every opinion, *but the judges*, gave the gold one to his in preference to the one which got it. On the other side I will give you a description of No. 2 and No. 3; for myself I can only say I never saw anything equal to them. His great skill in the impregnating of his flowers, together with great good luck, will amply reward him this season. All but two or three that have yet opened are very fine, and daily something appears to astonish; nothing of the kind has ever taken place in this part of the country, and, if I mistake not, he is about to show our Plymouth florists how he can raise seedlings and grow plants; but this exhibition being three times the size of any other, I shall now proceed to describe

No. 2. Name, the *Bride of Devon*.—A very superb white of superior size and shape, the upper petals two-thirds covered with a flamed spot of black, edged with a beautiful purple crimson, obtained the silver medal, and considered to *be the best white yet raised*.

No. 3. Name, the *Gem of the West*, and well deserving the name indeed. It is a brilliant of the first water, its size and shape is faultless, the upper petals covered with black and crimson, edged with bright rose, the under short and broad, of a superb light rose, with lines one half the length of the petals, the other half a pure white, forming a perfect gem in the centre.

There are ninety still to open, so far it bids fair to have a complete house full of seedlings of the first character. E. B.

REMARKS ON DAHLIAS, &c.—I still continue your excellent work, the "Floricultural Cabinet," which (unlike many periodical works) improves in interest instead of falling off; and I wish you had resumed the "Forester's Record," [we intend to do so, Conductor] as much yet remains to be said on the habits, culture, &c., of flowering, ornamental, evergreen, and deciduous shrubs; which are not treated of sufficiently in detail in any horticultural work I have yet met with. Loudon, it is true, in his "Encyclopædia of Gardening," gives you a considerable catalogue of them under their several heads, with their height, time of blooming, colour, &c.; but I have found, by experience, that many of them said to be hardy will not flourish within the influence of the sea air, or in very exposed situations. After dwindling a few years, they die, and the cultivator loses both his time and money, the former of which, to an amateur wishing to improve the scenery immediately contiguous to his house, is probably of most importance. With many the price of such a work as Loudon's is not easily spared, whilst, on the other hand, a sixpenny or a shilling number per month is not felt. I am afraid the immense number of almost worthless dahlias which now come out annually, together with the squabbles of the trade, will sicken amateurs of giving 10s. 6d. for plants which in three years' time are generally estimated at 1s. If 3s. 6d. were the outside prices of all new dahlias, except such as have taken a certain number of single-handed *first prizes* as seedlings at some of the *principal exhibitions*, I should think the trade would find double the number of amateur purchasers for really good flowers, and they might keep up the price of first-rate flowers much longer. I know many amateurs who have given up the fancy in consequence of the difficulty of selecting from such a number of 10s. 6d. plants, and the certain deterioration of their collections in so short a time. Why should a dahlia, which is so easily originated and so easily multiplied, be sold at such a price? There is some excuse for a tulip, which requires many years to come from the seed to perfection, and when once proved to be good, it keeps its price and station in the market and in the bed. In order to have a good collection of dahlias, one-third of them must be renewed annually, and those they have displaced may be thrown to the pigs, which is rather dear feeding at the original cost of 10s. 6d. per root. I grow about 150 varieties, and I find about 20 new kinds annually scarcely sufficient to keep up a competent bed, to exhibit as an amateur on a very moderate scale; and this I do for the sake of encouraging a love of horticulture amongst those who might spend their

time less profitably to themselves or the community at large. Any prize I can possibly get will not cover the expense of two good dahlia roots.

Hastings.

AN OLD SUBSCRIBER.

[We admire the beauties of the tulip, and think that the patience and industry of several years with seedlings, entitle the growers to a just remuneration, and which we hope our correspondent and a floral public will continue to support; but without disparaging either one or the other, we beg to express it as our opinion, that a first-rate seedling dahlia has an equal claim to 10s. 6d. as its price, as a tulip at from 5*l.* to 100*l.* The flower is more striking and ornamental, the period of blooming, not limited to three or four weeks, but extending usually to five months. If easy of propagation and culture, as our correspondent remarks, such circumstances put in the power of the possessor to have so much more of its splendour for his own enjoyment, and afford him the additional pleasure of giving his friend a portion too. It is true the tulip is not cultivated for several years before its merits are proved without trouble and expense, nor is the dahlia. It is generally the case that many thousands of seedlings must be grown to obtain perhaps one (and sometimes not that even) first-rate flower; it must *now* be grown a second or a third year, in order to prove it, so as to send it out with confidence: if it prove good, there has been trouble and attention attending it. When first-rate formed dahlias are only grown, the seedlings may be expected to be good; and if our correspondent, or other amateur growers, pay attention to raising seedlings, it is not only very interesting, but will, when a superior one is obtained, compensate for the outlay of a few pounds required to possess some of the new kinds offered each successive season. There is, too, the additional probability of obtaining something valuable by prizes at exhibitions. To amateurs in general the honour and pleasure is a sufficient remuneration.—CONDUCTOR.]

BLUE-FLOWERED HYDRANGEA.—A plant was exhibited at the Lynn Horticultural Show, by Mr. Freestone, gardener to C. B. Plestowe, Esq., Wallington Hall, which had eighty-six fine heads of flowers. We hope soon to give our readers the mode of treatment pursued with it.

DOUBLE-BLOSSOMED PANSY.—I do not know whether a *double* Pansy has yet been produced, but never having seen anything of the sort, and on the possibility that it may be a novelty, I enclose a specimen of one which appeared in my seed-bed last year, and from which cuttings were struck. These have all resembled the parent plant, but the flowers are few of them as perfect in shape. The upper petals *alone* are double in any of the flowers; but there are *rudiments*, more or less developed, in many instances, of the lower petals also. If you or any of your correspondents can suggest any mode of treatment by which this effort to produce a double flower may be improved, I shall be much obliged by a few hints in a future number of your publication. I hope to save some seed from some of the blossoms, but of course no reliance can be placed on these.

FLORUS.

Some of the blossoms have the rudiments of a 5th and 6th upper petal.

[We never saw before, or heard of, a Pansy of the kind sent us. It is quite a novelty, and well worth retaining. It may have originated by cross impregnation from the double sweet violet. At all events, if the present variety does not come quite double in all its parts, it would be well worth trying the experiment next season, by impregnating its flowers with the farina from the Neapolitan or Russian Violet. We shall be glad to hear it is tried, and to know the result.—CONDUCTOR.]

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.

Dahlias. Where the laterals are very numerous, they should be thinned out so as to have vigorous blooms. Towards the end of month collect seed of the early blown flowers.

Mignonette may now be sown in pots to bloom in winter.

Pelargoniums, cuttings of, may now be put off; plants of which 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 Melindris (*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. When taken into a cool frame or greenhouse for winter protection, much of the success depends on being kept near the glass.

Plants of Chinese *Chrysanthemus* should be re-potted if necessary; for if done later, the blossoms will be small. Use the richest soil. Pinch off the leads to cause the production of laterals, so as to have a head of flowers.

When *Petunias*, *Heliotropium*, *Salvias*, *Pelargoniums* (*Geraniums*.) &c., that 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 in 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 effect of cold air, &c.

Plants of *Pentstemons* should be divided by taking off offsets, or increased by striking slips. They should be struck in heat.

The tops and slips of *Pansies* 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.

REFERENCE TO PLATE.

FUCHSIAS, No. 1.—A Seedling raised in the Downham Nursery, being an hybrid from *F. globosa*, impregnated with *F. fulgens*. It is an abundant bloomer, and possesses a peculiar property of the calyx, reflexing back so much as to show the corolla far more conspicuous than any other we ever saw, rendering it very shy showy. The plant is of a vigorous habit.

No. 2.—A Seedling raised by Mr. Smith, and exhibited at the London Horticultural Society's room in Regent Street, which we noticed in a former number. It is not equalled by any hybrid we have seen. It is of free habit, and blooms freely. That, with a number of others, will be offered for sale ere long, and are well worth possessing. We shall be glad to take orders for them for our friend, who deserves to be amply repaid for the novelties with which a floral public will doubtless be gratified.



1. *Ranunculus acris* 2. *Ranunculus repens* 3. *Ranunculus flammula*

THE
FLORICULTURAL CABINET,

OCTOBER 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ROSES FOR PILLARS.

BY SURREYENSIS.

YOUR correspondent "Azalea" asks for a list of the best pillar roses, and I am glad to assist any one in the cultivation of that queen of plants, now rendered doubly valuable by the length of time they remain in bloom; I have no doubt with care they will soon be obtained eight or ten months in the year, for their cultivation is yet in its infancy. At the head of all I place

THE BOURBONS.

"MADAME DESPRES."—I know not which most to admire, the flower or the foliage; the former is pink, equal in beauty to the Provence rose, turning off to lilac; it blooms in abundance from June to November.

"GLOIRE DE ROSAMERE."—Brilliant crimson, semi-double, cupped petals, with the odour of otto of roses: a most abundant bloomer.

"DUBOURG."—Very double, blush with a darker centre, abundant bloomer, and very beautiful.

"PHENIX."—Brilliant crimson: this is quite new.

"CYTHERÉE."—Pale rose.

"MILLÉSIE."—Light rose, double cupped petals.

"OLD BOURBON."—Bright deep rose.

NOISETTES.

"CERISE."—Rapid growth, bright crimson, very late bloomer, semi-double.

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“NANKIN.”—Nankin changing to pink. Most abundant bloomer in clusters.

“CAROLINE.”—Pink, abundant and late bloomer, delicate foliage.

“ANDRESELLE.”—Lilac, most abundant bloomer.

“JANNE DESPRES.”—Yellow and orange, beautiful, but rather tender.

“LAMARQUE.”—White, with yellow centre, also as tender as a Tea Rose.

“YELLOW BANKSIA.”—Most beautiful, early bloomer, but tender.

“BANKSIA ODORATISSIMA.”—This I have not seen bloom, but I have a magnificent pillar of it.

“CAMELLIA ROUGE.”—Persons are divided as to its class; bright crimson, fine formed flower.

“TRIOMPHE DE BOLWYLLEN.”—This has the appearance of a tea-rose, and I fear its tenderness also. Rivers’s Caliset a sempervirens, white.

BOURSAULTS.

BLUSH.

CRIMSON, or Amadis, deep colour.

GRACILIS, bright, lilac rose.

INERMIS, bright rose.

ELEGANS, crimson purple, striped.

These are all beautiful, both in form and colour. There are besides the Multifloras, but they are so tender I suppose they would not suit “Azalea’s” purpose. If his soil is light, let him plant them in November; if stiff, in open weather, in February, and put in when planted plenty of good rotten leaf mould.

ARTICLE II.

DESCRIPTIONS OF SOME SUPERB KINDS OF PILLAR ROSES.

BY MR. CHARLES WOOD, WOODLANDS NURSERY, NEAR UOKFIELD, SUSSEX.

TRUSTING that the following information will be acceptable to your correspondent Azalea, I have ventured to annex a list of roses, which I can recommend with confidence.

PILLAR ROSES.

- SEMPERVIRENS. ADELAIDE D'ORLEANS, pale rose shaded.
 _____ *FELICITÉ PERPETUELLE, compact cream colour.
 _____ PRINCESSE LOUISE, creamy white and rose.
 _____ *MYRANTHUS RANUNCULACEA, rosy light purple,
 elegant shape.
 _____ *TRIOMPHE DE BOLLWYLER, creamy shaded white.
- AYRSHIRE. *RIVERS'S QUEEN, purplish crimson cupped.
 _____ COUNTESS OF LIEVEN, cupped shaded white.
 _____ QUEEN OF THE BELGIANS, pure white, finely scented.
 _____ RUGA, large pale flesh colour, very fragrant.
 _____ *SPLENDENS, shaded white, globular, large and double.
- BOURSOULT. *CRIMSON OR AMADIS, bright velvety purplish
 crimson, in flower now.
 _____ *NEW HYBRID GRACILIS, rich bright rose.
 _____ INERMIS, vivid deep rose colour.
- MULTIFLORA. ELEGANS, small double white.
 _____ *GREVILLEA RUSSELLIANA, purplish crimson and
 large clusters.
 _____ *LAURE DAVOUST, changing from bright pink to
 pure white.
 _____ SUPERBA, bright rose pencilled.
- MUSK. PRINCESSE DE NASSAU, most beautiful yellowish cream.
- HYBRID CLIMBING. **THE GARLAND, most beautiful, changeable,
 white and pink, &c., &c.
 _____ *WELLS'S WHITE, cupped, pure white, in im-
 mense clusters, a most rapid climber.
- BOURBON. MADAME DESPRÉS, lilac rose colour.
- HYBRID CHINA. *BRENNUS, very large red.
 _____ *BLARII, No. 1., delicate beautiful rose, very
 highly scented.
 _____ DAUBENTON, vivid crimson.
 _____ VICTOR HUGO, large purplish lilac rose.

I have ventured to suggest the names of more than eighteen, as some of the above named varieties may already be in possession of "Azalea." Those marked thus * are varieties I would beg more particularly to recommend. With respect to the beds H, E, and F, that your correspondent is desirous of filling in the autumn,

and as it seems an object not to mix the classes, I would venture to recommend ten kinds of Hybrid perpetuals, for the compartment marked H; ten kinds of Provence roses for E, and ten kinds of Damask roses for F. Some of the varieties of *Rosa alba* are very beautiful; between these and the Damask roses I hardly know which to give the preference to, so I will annex ten names in each of the last mentioned classes, and leave it to your correspondent to choose accordingly.

HYBRID PERPETUAL ROSES.

COQUETTE DE MONTMORENCY, PRINCESSE HELÈNE, LADY FORDWICH, MARSHAL SOULT, CLEMENTINE DUVAL, QUEEN VICTORIA, LOUIS BUONAPARTE, MADAME LAFFAY, COMTE DE PARIS, GLOIRE DE GUERIN; this last variety is a brilliant crimson, the others vary from a pale to a very deep rich rose colour.

PROVENCE ROSES.

ADÈLE DE SENANGE, large rosy blush.
 CURLED, bright rose, globular and double.
 DUCHESNE, very superb deep blush.
 FRINGED, large rose with crested moss buds.
 MONSTROUS OR BULLÉE, very large rose colour, inflated foliage.
 REINE DE PROVENCE, pale blush large.
 SPOTTED, deep rose, spotted, globular, large and double.
 UNIQUE PANACHÉ, delicate white, with rosy stripes.
 WELLINGTON, large deep rose.
 WILBERFORCE, brilliant bright crimson.

DAMASK ROSES.

ADMIRABLE BLANC BORDÉ DE ROUGE, cream colour, margined with crimson.
 ANTIGONE, large compact vivid red.
 BLANCHE DAVILLIERS, fine white.
 CARALLIE, white, with rosy centre.
 LA FIANCÉE, flesh colour shaded with rose.
 LA VILLE DE BRUXELLES, large rose colour.
 LADY FITZGERALD, light crimson, cupped and double.
 MADAME HARDY, pure white.
 PAINTED DAMASK, OF LEDA, creamy white margined with purple.
 MADAME DE MAINTENON, rose edged with white.

ROSA ALBA.

BELLE CLEMENTINE, ELIZA, FEROX, FANNY SOMMERSON, FELICITÉ PARMENTIER, JOSEPHINE BEAUHARNAIS, LA SEDUISANTE, LA REMARQUABLE, SOPHIE DE BAVIÈRE, VICTORIA.

The colours of this last beautiful section vary from white to a deep flesh colour.

I hope the above list will meet the wishes of "Azalea;" should the descriptions of other kinds be required, I shall have pleasure in giving them.

ARTICLE III.

OBSERVATIONS ON STRIKING CUTTINGS OF PLANTS.

(Translated from a Communication by an anonymous Writer in the "Journal des Connoissances Usuelles.")

BY AMICUS.

IN the month of March, 1829, I disbudded several plants of the "Daphne Laureola," and left the buds scattered on the ground beneath. A month or five weeks afterwards I was not a little surprised to find that they had almost all sent out roots. This hint induced me to make experiments upon other plants; and at the end of April I took several slips of the "Lagerstræmia Indica," which had just burst forth, and had advanced to the length of from twelve to twenty lines, taking care to reserve with each a small portion of the parent bark. I then stripped them to the extent of seven or eight lines from the base upwards, and planted them in a pot filled to the depth of two inches with broken potsherds, and above with a compost, two years old, of willow mould, the refuse of the vintage, and pit-sand well washed. They were then well watered, and placed in a hotbed under a bell-glass, and care was taken to shade them and give them air when necessary. The first fortnight several damped off from the glass, not having been properly attended to; but on the twenty-second day after they were planted, I found that the rest had passed from the herbaceous to the half-woody state, and the terminal bud seemed to announce that there would shortly be a rise of the sap. Six days after this I pricked them out into small separate pots, and discovered that each had made a thick tuft

of roots, and twenty-seven out of thirty-eight succeeded completely. I tried the same plan, and with equal success, upon four varieties of the "Metrosideros," upon the "Melaleuca," "Clethra Arborea," and "Magnolia Grandiflora," besides Acacias and Roses. By this means I have obtained a considerable number of plants fit for sale in the course of six or seven months, remarkable for their strength and beauty, and from eighteen to twenty-four inches in height.

This simple method, I think, may be applied to all kinds of plants; and, as I have never seen it alluded to in any horticultural work, I venture to think that, if you consider it worth publication, it may be of some service to practical gardeners.

ARTICLE IV.

AN EASY AND SUCCESSFUL METHOD OF PROPAGATING THE TREE PÆONY, BY MONS. MAUPOIL, OF DOLO, ON THE BRENTA, IN ITALY.

(Translated from the "Journal des Connoissances Usuelles.")

BY AMICUS.

IN the month of April I take off (close to their origin) the young shoots which show for flower, at which time they are about five, six, or eight inches long. After having stripped off most of their leaves, and cut off the flower-bud, I plant them in a northern aspect, and cover them with a frame and a bell-glass. The next day I water them; but as the situation is, of course, moist, the waterings need not be frequently repeated. Great care must be taken to prevent the growth of moss, and, therefore, it is desirable to give them a little air occasionally from sunrise till seven or eight o'clock in the morning. By the following month of October they are well rooted, and they may then be planted out, or left where they are, if they have sufficient ground-room. By this method I do not lose above one cutting out of twelve. Experience has taught me that the young and vigorous shoots which have no flower buds do not strike so well; and the reason seems to be, that the suppression of the bud causes an increased determination of sap to the base of the cutting.

ARTICLE V.

ON THE TREATMENT OF STOVE PLANTS IN WINTER.

(Extracted from a Paper read before the Horticultural Society.)

BY A NORTH BRITON.

ALL plants are naturally subject, in a certain extent, to the vicissitudes of winter, spring, and summer. It follows, therefore, that, in a state of cultivation, something analogous should be followed by the cultivator in imitation of those changes. To keep tropical plants at a high temperature during winter, when there is little sunshine, is to excite their growing principle at a period when they should rather be at rest; and where such a practice is followed, the plants become drawn up, weak and leafless, in consequence of the perpetual, or, we may say, in this instance, unnatural, stimulus to excitement which the application of heat produces. It appears, from practice and observation, that the temperature of the plant stove should be kept as near to from 60 to 65 degrees as possible during the dark days of winter, for all that is then required is to prevent the plants from being checked or chilled by cold during that season; so that, as spring naturally comes on, a further, but gradual, stimulus may be given them by additional heat, and most particularly during the day.

Water must not be entirely withheld, particularly from some species; but a much less quantity of it is necessary than when the plants are in a growing state, and able to decompose a greater portion of that element. Some species require none for several weeks together; and such may be ascertained by their habits of growth, and are of the herbaceous and bulbous sorts. As these naturally ripen their foliage in autumn, (or at whatever other season,) and appear to die down to the ground, they should be observed, and collected as near together as circumstances will admit of, and a suspension of watering should then gradually take place, and be continued in till they begin to show signs of vegetation in spring, when they should be again supplied as usual. Some species, which require very little water during winter, do not lose their leaves, nor die down to the surface of the pots; but it is only observation on the part of the cultivator that can direct him in these instances when to water, and when to withhold it. It is (as we have repeatedly observed) one of

those cases in horticulture for which rules may be laid down, but not wholly without exceptions, and must entirely rest on the judgment of the cultivator. Steaming the stove during winter is a material feature in the best management of such plants, and should be scrupulously attended to, both to soften the atmosphere of the house, as well as to prevent the increase of insects, particularly the red spider, which is sure to make its unwelcome appearance in a high and dry atmosphere. The most eligible time for steaming the house is in the evening, when the flues are hottest, and it is performed by pouring water on them, which generates steam readily. In time of severe frost, this operation may be performed during the day, or dispensed with for a few days altogether. The quantity of water required to produce a sufficiency of steam depends on a variety of local circumstances, such as the size of the house, the way in which the water is put on the flues, &c. ; but it may be safely asserted, that more than is necessary is often used when it is poured on them by random, or done in too hurried a manner. In steaming all sorts of hot-houses, as well as in their whole management, it can only be expected to be well done when the operator feels an interest or pleasure in doing it. A few minutes more spent in applying it regularly and leisurely over the whole surface of the flues will do more good than sluicing a hogshead of water over the house in a careless manner. During the winter months very little ventilation is required in these structures ; for, unless the house be unusually well glazed, and in complete repair, a sufficiency of fresh air will find its way into it between the laps of the glass and other openings ; indeed greater care should be had to the exclusion of cold air during winter than to its admission. The plants are, for the most part, (as observed above,) in an inactive state, and, therefore, not in want of those gases which compose certain parts of atmospherical air, and which are found so necessary for them when in a growing state.

September 15th, 1840.

ARTICLE VI.

ON RAISING THE SOLLYA HETEROPHYLLA FROM SEEDS.

BY REV. W. PROCTOR, ELVINGTON RECTORY, NEAR YORK.

AMONG the queries of one of the recent Numbers of your very useful publication, the "Floricultural Cabinet," I find one requesting information as to the mode of raising the seeds of the *Sollya Heterophylla*. I have a plant, which flowered profusely in a pot in 1838, and produced a great number of seed-pods: these remained on the plant during the winter, kept in a cold frame. They ripened the following summer; and I sowed them about April in the present year in a compost of leaf-mould, peat, and rotten dung. For a long time there appeared no sign of vegetation, though I kept the pot in which the seeds were sown in a cucumber-frame. In the latter end of June I perceived some plants appearing, in form like the seed-leaves of the carrot; but they did not seem to thrive, and several of them died off. I removed the pot into the open air, and in a few days after the plants came up, and grew very vigorously. I transplanted them into small pots, when they had grown about one or two inches high, and they are in a healthy, thriving state. My old plant produced seed-pods again last year, which ripened this spring. I preserve the seed in the pod until I purpose sowing it. The *Clanthus Puniceus* has seeded with me under the same treatment, and the seeds have grown very freely.

ARTICLE VII.

ON PROPAGATING THE TROPÆOLUM TRICOLORUM.

BY A COTTAGER.

SHOULD a few remarks on the propagation of *Tropæolum Tricolorum* from seed be of service to the very numerous readers of the "Floricultural Cabinet," I here send to you; and should you think them worthy of a place in your valuable Cabinet, you are quite at liberty to place them there, having been very successful in raising plants from seeds. The following is the method to be adopted:—

Take the seeds and place them in the pans belonging to the pots commonly used in gardens, filled with water, and let them soak for two or three days, till the shell which surrounds the interior of the seed will come easily off. After removing the shell, which requires to be done with great nicety, or you will injure the principal point of the seed, prepare some pots, filled with some good rich compost, composed as follows: two parts good decayed leaf-mould, one part hazel loam, and the fourth part of equal portions of bog-earth and sand, which mix well together; then fill the pots about three parts full, or rather more, of this mixture; then place the seeds on the top, (not too many, or you will not be able to remove the plant after it has formed a tuber,) and fill the remaining part with fine white sand, giving it a gentle pressing. Then remove the pots to the cool greenhouse, and place them in as shady a place as you possibly can, without anything being kept too close to them. Keep the pots always in a damp state; but mind when you sow the seed to place plenty of drainage at the bottom. As soon as some of the plants appear above the soil about one or two inches, take a small stick, and lift the seed from the soil, moving as little as possible the other soil, or you will injure the remaining seeds. Pot the young plants into the size pots called thumbs, which afterwards treat the same as for old plants in a growing state. The seedlings thus raised will flower the succeeding summer, and the year following make good established plants. Should any further remarks on them be required, I should be very glad to send them.

August 30th, 1840.

ARTICLE VIII.

A DESCRIPTION OF SEEDLING GERANIUMS.

BY J. R.

BLUSHING MAID, Pontey's, a very delicate blush ground, with fine crimson spot, and a bright vermilion flame to the edge of the upper petals; a truly striking first-rate variety, with large showy trusses.

Rival, Pontey's, dark rose ground, large and of fine form, the upper petals covered with a beautiful splash; form and habit first rate.

Beauty of Bath, Salter's. Its nearest ally appears to be the Sylph, but it is said to possess a larger blotch, and being equally free to bloom as the Sylph, will be a more ornamental variety than the present favourite.

Rival King, Salter; form and colour much the same as Gaines's King. Its prolific habit of flowering, and the greater brilliancy of colouring, constitute the chief merit of this variety, and renders it much superior to the King.

Peril of the West, Lyne's; a beautiful blush, having a pretty light centre, and a very dark splash, shaded off with scarlet, and covering nearly the whole of the upper petals; form and habit excellent.

Picta Perfecta, Lyne's. This flower is a deep peach coloured pink; the centre light, with a decided dark spot on the upper petal: the ground colour is remarkably vivid and striking; form and habit very superior.

Queen of England, Lyne's; a very delicate pink flower, with a beautiful pure white centre, reaching half way down the under petal, and breaking suddenly off, so as to be quite distinct from the ground colours; the upper petals are partially covered by a splendid black splash, which shades gracefully off into the ground colour; form and habit very good.

London, September 16th, 1840.

ARTICLE IX.

A LIST OF THE BEST KINDS OF PILLAR ROSES.

BY MR. H. M'MILLAN, WESTERHAM, KENT.

YOUR correspondent "Azalea" wishes for a list of the best Pyramid Roses. He should have said what the soil was, and whether wet or dry; also if the Roses get hurt by spring frost at his situation, as there are many Roses of the Isle de Bourbon and Noisettes that make fine Pyramid Roses, as well as some of the Hybrid China, but which, in some situations, get injured. However, I send a list of very rapid-growing ones, viz.,

1. Ayrshire Queen, shaded crimson.
2. ——— myrrh scented, creamy blush.

3. Ayrshire Ruga, pale flesh coloured.
4. ———— Crimson Ruga.
5. ———— Lovely Rambler, bright pink.
6. ———— Alice Gray, white.
7. Sempervirens, New, cream coloured.
8. ————— Mademoiselle d'Euphrasie, cream, back of the petals pink.
9. ————— Myranthus Ranunculacea, rosy light purple.
10. ————— Adelaide d'Orleans, shaded pale rose.
11. Multiflora Laure Davoust, changeable pink.
12. ———— Superba, pencilled rose.
13. ———— Crimson Grevillii, purplish crimson.
14. Boursault Amadis, or Crimson, bright purplish crimson.
15. ————— Gracilis, bright purplish rose.
16. ————— Elegans, purplish crimson, with white stripes.
17. Hybrid Climbing, Wood's Garland, changeable lilac and blush.
18. ————— Madame d'Arblay, white.

Your correspondent cannot do better than fill the three beds with the best of the following classes: Rosa Alba, Damask, and Provence, or China, in one bed, as they will keep flowering all the autumn. Should your correspondent wish for further information, I will give him all he wishes.

Westerham, September 18th, 1840.

PART II.

LIST OF NEW AND RARE PLANTS.

NOTICED IN BOTANICAL REGISTER.

CATASETUM MONACHANTHUS (roseo-album).—From Para, bloomed in the Glasgow Botanic Garden. Flowers white, with a lip tipped, and banded with red.

CATASETUM MYANTHUS (spinosum).—From Brazil, the flowers like *C. barbatum*, but somewhat larger, and of brighter colours. Bloomed in the Glasgow Bot. Garden.

AQUILEGIA FRAGRANS.—From North India. A hardy perennial. Flowers very fragrant, of a pale straw colour.

AQUILEGIA PUBIFLORA.—From the Himalayan mountains. A hardy perennial. Flowers of a pale purple, scentless.

HARDENBERGIA DIGITATA.—From the Swan River Colony. A greenhouse twiner, with handsome flowers produced in a dense raceme.

ANAGALLIS ALTERNIFOLIA.—From Rio Janeiro. It has bloomed in the fine collection of Sir W. Lemon at Carlew. An herbaceous plant, with trailing shoots. Flowers yellowish, tinged with pink.

STANHOPEA BARKERII.—A variety of *S. Wardii*, very handsome, without the eye-like spots of the latter, and the anterior of the lip of a delicate white. It is very fragrant too.

BRACHYCOME IBERIDIFOLIA.—From the Swan River, raised by Mrs. Wray of Cheltenham. It is a hardy annual, of the natural order Compositæ, with finely cut leaves like the *Nigella*, and flowers of a very deep blue. It grows about a foot high. There is a white variety too not yet introduced.

HIBISÆUS WRAYÆ.—From Swan River, raised too by Mrs. Wray. The plant is a handsome greenhouse shrub. The flower about five inches across, of a pretty lilac colour. This is doubtless a very valuable acquisition.

ANGRÆCUM BILOBUM.—An orchidea from Cape Coast Castle. It has bloomed with Messrs. Loddiges. The flowers are produced in pendent racemes, of a snow white, slightly tipped with pink.

EPIDENDRUM LANCIFOLIUM.—From Mexico. Bloomed with Messrs. Loddiges. Flowers like *E. Cochleatum*, but the lip is a pale yellow striated with deep purple.

DENDROBIUM HERBACEUM.—From the East Indies. Bloomed in the Messrs. Loddiges's. Flowers green.

ONCIDIUM RAMOSUM.—From Brazil. Bloomed with Messrs. Loddiges. A very fine flowering species, of a pale yellow colour.

SCHIZONOTUS TOMENTOSUS. (Synonym. *Spirea Lindleyana*.)—From the Northern provinces of India. A handsome shrub, having the appearance of *Spirea Sorbifolia*. It has not yet bloomed in Hort. Society's Garden, but Dr. Lindley remarks that specimens he has seen are in large panicles.

OPHELIA PURPURESCENS.—From the Northern parts of India. An herbaceous plant, with starchy like pink coloured flowers. It is probably only annual, and likely to be hardy.

SPIREA ROTUNDIFOLIA.—From Cashmere; appears to be hardy, and quite new to this country. It has not yet bloomed in the Hort. Society's Garden.

FROM PERIODICALS.

ALLIUM CERRULEUM.—Blue Leek. (Bot. Reg. 51.) Liliacæ. Hexandria Monogynia. From the salt plains of Asiatic Russia, near the Irtisch river, and found too on the Altai mountains, where it blooms profusely in May and June. It is a bulbous plant, growing about half a yard high, quite hardy. The flowers are produced in a globose umbel of two inches in diameter, each flower being near half an inch across, of a beautiful bright blue. It blooms freely in the beds of the garden of the London Horticultural Society.

APHELANDRA CRISTATA.—Crested. (Pax. Mag. Bot. 173.) Acanthacæ. Didynamia Angiospermia. A hot-house plant of great beauty, when properly grown. We have seen several splendid specimens exhibited at the Horticultural Society's show at the Chiswick Garden during the present year. The plant is of vigorous habit, similar to the old and well known *Justicia coccinea*. The flowers are produced numerously in dense spikes, each blossom being upwards of two inches long, of a rosy-scarlet colour. The plant may be obtained at most nurseries at a very cheap rate, and certainly deserves a place in every plant stove.

AZALEA INDICA, VAR.—Variegata. (Pax. Mag. Bot. 175.) Ericacæ. Pen-

tandria Monogynia. This beautiful variety, it is probable, is an hybrid raised between the common white flowered and one of the pink or red kinds. It is, however, one of the handsomest. The plant is a very free bloomer. The flowers are large, the ground colour of a pretty pale-pink, spotted with a deep red. The edges of the petals are white, forming a margin of about a quarter of an inch. The plant may be had at most of the public nurseries, and certainly deserves a place in every collection of this truly beautiful and profuse flowering tribe.

CATASETUM INTEGERRIMUM.—Entire lipped. (Bot. Mag. 3823.) Orchidacæ. Gynandria Monandria, sent by Mr. Skinner from Guatemala to the noble collection at Woburn. The flowers are produced in a long raceme, they are large, sepals green tinged with purple, labellum green outside tinged with purple, inside yellow blotched with deep purple.

CLEMATIS MONTANA.—Mountain Clematis. (Bot. Reg. 53.) Ranunculacæ. Polyandria Polygynia. From the Himalayan mountains. It is a hardy climber, growing rapidly and blooming most profusely. Certainly few plants are more beautiful than is this in April, May, and June, when its snow-white blossoms, tinged with a delicate pink, are produced in large clusters, and in such plenty as to appear an entire mass. Lady Amherst first brought the plant into this country, and it was then distributed under the name of *Clematis odorata*. It is a most suitable plant for a trellis, arbour, &c., and deserves a place wherever it can be admitted. We have grown it for the last two years, and can recommend it with confidence.

CYNOGLOSSUM LONGIFLORUM.—Long flowered Hound's Tongue. Boraginacæ. Pentandria Monogynia. A hardy perennial plant, growing about half a yard high, and blooms very freely from May to August. The flowers are produced numerously in long erect racemes. Each blossom is about an inch long, and three quarters across the mouth. On the outside of a pretty blue, inside red. The plant deserves a place in every flower garden. It is readily increased by seeds or division of the roots. When raised from seeds the plant does not bloom till the second year. It was introduced into this country by Dr. Royle, from seeds received of the Hon. East India Company, and collected in Cashmere.

DELPHINIUM SINENSE, var. *FLORE-PLENO*.—Double flowered Chinese Larkspur. (Pax. Mag. Bot. 171.) The single flowered was introduced near twenty years back: it is a very beautiful flowering species, growing from six inches to a foot high, blooming most profusely, and its splendid blue flowers produce a fine effect. This kind deserves a place in every flower garden, and as it can be obtained by seeds, and sown as an annual, it well merits attention. The double flowered variety, however, exceeds the former in brilliancy, though it does not bloom quite so profuse. It appears to be a perennial, growing and blooming freely in the open border. In order, however, to succeed well, it requires to be occasionally transplanted to another situation. This is required with some others of the Delphiniums, or they too are very liable to perish. The present plant is readily increased by division early in spring, or by slips taken off when the shoots are three or four inches high, inserting them under a glass.

DENDROBIUM DEVONIUM.—The Duke of Devonshire's Dendrobium. (Pax. Mag. Bot. 168.) Orchidacæ. Gynandria Monandria. Discovered by Mr. Gibson, the Duke of Devonshire's Collector, on the Khooesa hills, hanging from trees in excessively dense woods, at about 4500 feet above the level of the sea. The plant introduced to the noble collection there last April and May. The flower stems are very slender, drooping at the extremities, jointed; nodes rather distant. Flowers most frequently produced in clusters of three, each flower being near three inches across. Sepals of a cream colour, having a considerable dash of pinkish-purple. Petals fringed at the edges, cream-coloured, with less of the pink tinge, but has a stain of a deeper hue at the points. Labellum cream-coloured, beautifully fringed at the edges, having a large orange blotch on either side of the centre. One of the loveliest flowering Orchidæ yet introduced, and we think it is most appropriately associated with the name of the noble and distinguished patron of horticulture, his Grace the Duke of Devonshire. The plant deserves a place in every collection.

FRANCOA RAMONA.—White flowered. (Bot. Mag. 3824.) Francoaceæ. Octandria Monogynia. Discovered at Valparaiso by Mr. Cuming. It is as hardy as the now well-known *F. appendiculata*, adorned with spikes of pretty white flowers.

GALEANDRA BAUERI, Bauer's Casquewort.—(Bot. Reg. 49.) Orchidaceæ. Gynandria Monandria. Originally discovered in French Guiana by Martin, more recently by Mr. Ross, the Collector of George Barker, Esq., at Kisatipa, ten leagues from Melacatapac. The flowers are produced in terminal racemes, each blossom being a little more than two inches across. Sepals and petals of a yellowish-green, slightly tinged with brown. Labellum whitish, tinged with purple outside, yellowish inside with a deep purple lip.

MONOCHANTHUS LONGIVOLIUS.—Long leaved Monk flower. (Bot. Mag. 3819.) Orchidaceæ. Gynandria Monandria. (Synonym *Catasetum longifolium*.) Introduced from Demarara, and bloomed in the collection of T. Brocklehurst, Esq., the Fence, near Macclesfield. The flower scape is pendent, bearing numerous flowers, each flower being near two inches across. Sepals and petals of a rosy purplish-green. Lip of a most beautiful rich orange outside, dappled with orange-red, the edge of the mouth each side having a deep reddish fringe, and at the apex a shorter fringe of a deep blood colour. It is a very interesting and pretty flowering species.

PASSIFLORA VERRUCIFERA.—Warted Passion flower. (Bot. Mag. 52.) Passifloraceæ. Monadelphia Pentandria. A greenhouse climber, very probably a native of Brazil. It is very like *P. edulis* and *P. incarnata*. The flowers are curious and pretty, like all the tribe, but want richness of colour. They are white with a deep purple corona.

RODRIGUEZIA CRISPA.—Crisped sweet-scented. (Bot. Reg. 54.) Orchidaceæ. Gynandria Monandria. From the Organ Mountains of Brazil. It has bloomed in the fine collection of Messrs. Loddiges. The flowers are produced in a dense raceme, each blossom being about an inch across, of a dull sea-green, edged with a yellowish colour, slightly crisped. They are most delightfully fragrant, resembling the perfume of Primroses.

PART III.

MISCELLANEOUS INTELLIGENCE.

LONDON HORTICULTURAL SOCIETY.

EXHIBITED.—A fine specimen of *Russelia juncea* was shown by Mr. Davis, gardener to Sir Simon Clark, Bart., F.H.S., presenting a mass of bloom about three yards round, and four to five feet high. Mr. Davis also sent a large Providence pineapple, weighing 9lb. 10oz., a basket of Muscat of Alexandria grapes, and a dish of peaches in three varieties.

A collection of plants from Mrs. Lawrence contained *Peristeria pendula*, a new species of *Lælia*, *Curcuma Roscoeana*, *Catasetum tridentatum*, a new var. of *Catasetum*, *Oncidium papilio*, *Peristeria cerina*, *Epidendrum ciliare*, *E. floribundum*, *Erica speciosa*, *E. verticillata*, and *E. Aitonia*.

From Mr. James Rigby, of Stanhope Nursery, Old Brompton, a new variety of *Catasetum*, with flowers of a pale green.

From Mr. George Phillips, gardener to the Misses Trevor, of Tingrith, near

Woburn, a collection of blooms from several species of *Zinnias*, *Combretum purpureum*, and *Mandevilla suaveolens*, and some pineapples.

From Mr. Robert Buck, of Blackheath, a new and rather pretty light-coloured *Amaryllis*, from the Cape of Good Hope, and a dish of grapes from the Deccan vines, which, like those shown on a former occasion, though ripe to appearance, were very deficient in flavour.

From Mr. Head, of Worthing Nursery, some seedling cherries, resembling the Morello in size and colour, but very inferior in flavour. They were grown on a wall with a west aspect; 26 of them were found to weigh half a pound.

From Mr. W. Buck, gardener to the Hon. Fulke Greville Howard, F.H.S., grapes of the following kinds:—Tokay, Grange's seedling, and the Finger or Horn grape.

From Mr. Chapman, of Vauxhall, a dish of black Hambro' grapes.

Mr. D. Brewster, gardener to Colonel Lindsey, of Ballacarris, Fifeshire, sent two pots of jelly and jam, made from unripe grapes—both tolerably well-flavoured.

Plants—*Odontoglossum Rossii*, *Phaius albus*, *Catasetum citrinum*, *Zygopetalum maxillare*, a new species of Thrift, called *Armeria fasciculata*, a native of Corsica, nearly hardy, but requiring the protection of a frame in winter.

Cut flowers—*Ceanothus azureus*, ditto *pallidus*, *Physianthus albicans*, *Malva Mauritiana*.

Pears—Franc real d'été, Yutte, Hessel, Chair a'Dame, Ambrette d'été, Summer Bergamot, St. Pierre.

Apples—Gravenstein, Summer Golden Pippin, Leyden Pippin, Mason's White, Manx Codlin.

Plums—Reine Claude Violette, Virgin, Damas blanc, Pond's Seedling, Diaprée rouge, Wine sour.

Nectarines—Violette Hâtive, Elruge.

Peaches—George the Fourth, Bellegarde.

The Knightian medal was awarded to Mr. Davis, for the Providence pine, and Banksian medals to Mr. Buck, for the Deccan grapes, to Mrs. Lawrence for *Curcuma Roscoeana*, and to Mr. Parsons for Ripley Queen pines.

Sept. 15th.—Dr. Henderson, Vice-president, in the chair.

From Mr. Henderson, nurseryman, of Pine Apple-place, Edgeware-road, was a fine specimen of *Æschynanthus grandiflorus*, which had been treated as an orchideous plant, a cutting having been last year struck on a stump of a tree, and suspended in the stove, where it flowered abundantly.

Messrs. Lee and Co., Hammersmith, sent a hybrid *Ipomea*, raised from *Sellowii*, impregnated with *Horsfallii*.

Mr. Christie, of Clapham-road, exhibited a bloom of *Cereus triangularis*, a species nearly related to the night blooming *Cereus*, and which usually blooms and fades between sun-set and sun-rise; the present flower, however, by some accident, remained fit for show during the day.

From Mr. Hugh Low, of Clapton, were some pretty plants from the Swan River, one a new species of *Boronia*, and a *Stylidium saxiflagoides*.

From Mr. Fielder, gardener to William Linwood, Esq., F.H.S., a Moscow Queen Pine, weighing 4 lb. 9 oz.

From Mr. Robert Buck, of Blackheath, two vines in pots, of different varieties of the Deccan grape introduced some years back by Colonel Sykes; and a branch of Coe's Golden Drop Plum.

Some drawings were exhibited by Miss M. Beloe, on rice-paper, a substance which, although so called, is not composed of rice; but of the pith of a species of *Hibiscus*, cut by the Chinese into thin slices and pressed.

From the Society's Garden were exhibited:—

Plants of *Cattleya intermedia*, ditto *Harrisoniana*, *Oncidium Papilio*, *Dendrobium alpestre*, *Zygopetalum intermedium*, *Gardenia Rothmannii*.

Cut flowers.—A collection of Dahlias, ditto of Roses, *Lupinus Hartwegii*, an annual species from Mexico, *Malva Mauritiana*, *Pentstemon gentianoides*,

Statice scoparia, ditto ditto præcox, ditto latifolia lævis, and Helianthus orgyalis.

Pears.—Drapiez d'été, Waterloo, Ambrosia, Washington, Poire Figue, and Dunmore.

Apples.—Wormsley Pippin, Transparent de Christ, Autumn Pearmain, Reinette de Laak, De Lande, Baleborodova, Marmorier Sommer Pepping.

Plums.—Downton Imperatrice, and Quetsche, which becomes when dried the German prune.

Cherry.—Bigarreau tardif de Hildesheim, an abundant bearer, and one of the latest of the hard fleshed kinds.

Knightian medals were awarded to Mr. Henderson, for *Æschynanthus grandiflorus*, and to Mr. Fielder, for the Moscow Queen Pine.

Lord Prudhoe was proposed a member of the Society, and being the son of a peer of the realm, was elected forthwith.

ROYAL SOUTH LONDON FLORICULTURAL SOCIETY.

The Dahlia Show of the above Society took place at the Surrey Zoological Gardens on Tuesday, Sept. 15th. The blooms, both of Dahlias and Heartsease, were better than could have been expected this rather unfavourable season. There were, too, some well-grown plants. The prize of five sovereigns offered by Mr. Widnall, of Granchester, for the bloom of any yellow Dahlia, was awarded to Mr. Dalton, of Tooting, for a bloom of Cox's Defiance. The Heartsease, both stands and seedlings, contained a great many good flowers, and attracted a large portion of the unusually numerous company. Messrs. Paul and Son, of Cheshunt, exhibited a tray of Roses of great beauty and variety for this late period. Mr. Chapman, of Vauxhall, had some exceedingly fine Black Hambro' Grapes. Extra prizes were recommended by the judge for Apples and Pears, to Messrs. Baldwin, John Gaines, Bursil, and Lee. The collection of Vegetables shown by Messrs. Gaines and Martin were larger and better grown than on any previous occasion. We were unable to obtain the names of many productions. The following prizes were awarded:—

AMATEURS.

Dahlias, best 24—1. The gold medal, Mr. Headly, of Stapleford, near Cambridge; 2. Large silver, Mr. Burrup, of Camberwell; 3. Middle silver, Mr. Humber, of Southall; 4. Small silver, Mr. Prockton, of Bermondsey.

Best 12—1. Large silver, Mr. Hale; 2. Ditto, Mr. Cook; 3. Middle silver, Mr. Hunt; 4. Ditto, Mr. Green; 5. Small silver, Mr. Smith; 6. Ditto, Mr. Wildman.

Asters, best 12—Small silver, Mr. Dalton.

Heartsease, in stands of 24 varieties—1. Large silver, Mr. Edmonds; 2. Middle silver, Mr. Walden; 3. Small silver, Mr. Hall.

Best collection of Cut Flowers—1. Middle silver, Mr. Davis; 2. Small silver Mr. Bushell.

GENTLEMEN'S GARDENERS.

Best collection of Miscellaneous Plants, not to exceed 24 pots (Orchideous Plants excluded)—1. The gold medal, Mr. Coutts; 2. Large silver, Mr. Atlee, for *Correa speciosa*, *Siphocampylus bicolor*, *Polygala obcordata*, *Gesneria splendens*, *Crocea saligna*, *Mannettia glabra*, *Erica grandinosa*, *E. Boveana*, *E. Irbyana*, *Witsenia corymbosa*, *Selago Gilesii*, *Thunbergia aurantiaca*, *Statice puberula*, *Polygala grandiflora*, *Elychrysum proliferum*, *Boronia pinnata*, *Fuchsia globosa*, *Gomphocarpus fruticosus*; 3. Middle silver, Mr. Payne; 4. Small silver, Mr. Lane.

Cockscombs, best 12—Middle silver, Mr. Bloxam.

Dahlias, best 24—1. Large silver, Mr. Mountjoy; 2. Ditto, Mr. Syred; 3. Middle silver, Mr. Mortlock; 4. Ditto, Mr. Bourne; 5. Small silver, Mr. Watson; 6. Ditto, Mr. Bennett.

Asters, best 24—Small silver, Mr. Foster.

Heartsease, in stands of 36 varieties—1. Middle silver, Mr. Fisher; 3 Small silver, Mr. Foster.

Best collection of Cut Flowers—1. Large silver, Mr. Inwood; 2. Middle silver, Mr. Coope; 3. Small silver, Mr. Morely.

NURSERYMEN, MARKET-GARDENERS, AND FLORISTS.

Dahlias, best 50—1. The gold medal, Mr. Mountjoy, of Ealing; 2. Large silver, Mr. Willmer, of Sunbury; 3. Ditto, Mr. Catleugh, of Chelsea; 4. Middle silver, Mr. King; 5. Ditto, Mr. Gaines, of Battersea; 6. Small silver, Mr. Girling, of Stowmarket; 7. Ditto, Mr. T. Bock.

Best 24—1. Large silver, Mr. Thompson; 2. Middle silver, Mr. Henbrey, Croydon; 3. Small silver, Mr. Stockwell, Walworth.

Asters, best 36—Small silver, Mr. Paul.

Best collection of Miscellaneous Plants—1. Large silver, Mr. Chandler, of Vauxhall; 2. Middle silver, Mr. Jackson, of Kingston; 3. Small silver, Mr. Fairbairn, of Clapham.

Best collection of Roses in bunches—Middle silver, Mr. Paul.

Heartsease, in stands of 50 varieties—1. Large silver, Mr. Thompson; 2. Middle silver, Mr. J. May, of Edmonton, for the following varieties, Ward's Amulet, ditto Apelles, ditto Anne Maria, ditto Beauty of Enfield, ditto Captain Cook, ditto Charles XII., ditto Conqueror of Europe, Lovegrove's Coronation, Thompson's Coronation, Ward's Crimson Shakespeare, May's Don John, Page's Duke of Wellington, Ealing Hero, Eclipse, Glover's Edwin, May's Egyptian Prince, ditto General Picton, Glory of Enfield, Grace Darling, Grand Monarch, May's Hero, Hon. Mrs. Adams, May's Imogene, Lidgard's Jewels, May's King Leopold, Willmer's Lady Fuller, Burl-y's Lord Nelson, May's Maid of Judah, ditto Mauius, ditto Marc Anthony, ditto Peter Dick, ditto Helen Macgregor, ditto Dandie Dinmont, ditto Melpomene, ditto Mistake, Pond's Napoleon, Walter's Natolia, May's Orpheus, ditto Pallas, ditto Pandora, ditto Plenipo, Harris's Pilot, May's Polyphemus, Mountjoy's Queen Victoria, May's Rival King, ditto Sir John Rae Reid, ditto Sir William Wallace, ditto Vitruvius, ditto Wonder, Yarico.

Best collection of Cut Flowers—1. Middle silver, Mr. Fairbairn; 3. Small silver, Mr. Denyer.

OPEN TO ALL CLASSES.

Best Specimen Plant—1. Large silver, Mr. Cooper; 2. Middle silver, Mr. Jackson; 3. Small silver, Mr. Bonbas; 4. Ditto, Mr. Jackson.

Best collection of Orchideous Plants in Flower—Large silver, Mr. T. Banks.

Best Seedling Dahlia of 1839, not less than 4 blooms—1. Middle silver, Mr. Catleugh, for a scarlet-coloured, called Eclipse; 2. Small silver, Mr. Widnall, Granchester.

Best ditto of 1840, single bloom—1. Middle silver, Mr. Allchin; 2. Small silver, Mr. Widnall.

Best Seedling Heartsease—Mr. J. May, for Peter Dick. Extra prize recommended for Mark Anthony, (May's).

Best four sorts of Fruit (excluding Grapes and Pines)—1. Large silver, Mr. Lane; 2. Middle silver, Mr. Embleton; 3. Small silver, Mr. Lee.

Best basket of Grapes—1. Middle silver, Mr. R. J. Chapman, Vauxhall; 2. Small silver, Mr. Andrew.

Best Pine—Middle silver, Mr. Andrew.

Best collection of Vegetables—1. Large silver, Mr. J. Gaines, Battersea; 2. Middle silver, Mr. Martin, Millbank.

EXTRA PRIZE OF FIVE SOVEREIGNS OFFERED BY MR. WIDNALL.

For the best single bloom of any yellow Dahlia, named, and hitherto sold out—Mr. Dalton, of Tooting, for Cox's Defiance.

CAMBRIDGE HORTICULTURAL FETE.

The show was arranged in the grand avenue of the gardens of St. John's College, and extended the whole length, and, with the magnificent arms of the college at the end, worked in dahlias, had a very beautiful effect. The arms of the college are those of England and France quarterly in a bordure; and though the azure of the latter could not, of course, be accomplished with dahlias, so as to please the herald, yet a very near approximation was made. The badges, too, of the college, at the sides of the arms, merit great commendation. The next best device was a giant butterfly, in dahlias, which really vied in beauty with "the Admiral" species, so great a favourite with the naturalist. On a long board also were the words "May Floriculture meet its due reward," every letter being worked in different coloured dahlias; it was a very pretty object, meeting the eye on entering to the bowling-green. In the middle of the bowling-green, on a massive oak octagonal table, was a splendid crown in dahlias; and we may remark that this is the first attempt we have seen to make a crown of these flowers that has completely succeeded; every part was proportional, and the colours chosen those best adapted. There was also an Indian warrior's cloak, or a lady's mantelet (it might be called either), very curiously worked in laurel leaves, which deserves commendation, at least, for its novelty. A splendid Cornucopia had a very pleasing effect. The band in attendance was very efficient.

The following is a list of the prizes, as read by the Rev. T. Lund, B.D., Fellow of St. John's:—

The Cambridge Cup, 24 dahlias—Messrs. Brown, of Slough, near Windsor.

First Class, 36 dahlias—1, £10. Messrs. Brown, of Slough; 2, £7. Mr. Widnall; 3, £5. Mr. Headland; 4, £3. Mr. Beauford, of Biggleswade; 5, £2. Mr. Mountjoy, of London.

Second Class, 24 dahlias—1, £7. Rev. William Skinner, of Rushden; 2, £5. Mr. Beauford, of Biggleswade; 3, £3. Rev. A. Newby, of Tilbrook, Beds; 4, £2. William Hogg, Esq., of Biggleswade; 5, £1. Mr. Richard Heady.

Third Class, 12 dahlias—1, £4. Mr. Jasper Taylor; 2, £3. Mr. John Sparrow; 3, £2. Mr. J. Newman, of Bourne; 4, £1. Messrs. Hudson.

Fourth Class, 3 dahlias—1, £1. Mr. John Boning; 2, 15s. Mr. Sutton, of Biggleswade; 3, 10s. Mr. Edward Wright, of Grantchester; 4, 5s. Mr. Daniel Moore, of Grantchester.

Fifth Class, the best dahlia—1, £1. Mr. Widnall; 2, 15s. Mr. Brewer; 3, 10s. Mr. John Boning; 4, 5s. Mr. Keynes, of Salisbury.

Sixth Class, 3 seedlings of 1839—1, £1. 10s. Mr. Widnall; 2, £1. 5s. ditto; 3, £1. Mr. Keynes, of Salisbury; 4, 15s. Messrs. Brown, of Slough; 5, 10s. Mr. Girling, of Stowmarket.

Seventh Class, 1 seedling of 1840—1, £1. Messrs. Hudson; 2, 15s. Mr. Furze, of Bedford; 3, 10s. Fred. Hogg, Esq., of Biggleswade; 4, 5s. Mr. Beauford, of Biggleswade.

Device in dahlias or other flowers—1, £1. 10s. Mr. Widnall (St. John's College Arms); 2, £1. Mr. J. Rickard (Emperor of Morocco Butterfly); 3, 10s. Mr. Robert Ellis (a splendid gigantic crown).

Motto in dahlias or other flowers—1, £1. 10s. Mr. Widnall (May Floriculture meet its due reward); 2, £1. Mr. Robert Chandler (Faith, Hope, and Charity, and Cornucopia).

ROYAL CALEDONIAN HORTICULTURAL SOCIETY.

The autumn meeting of this national Scottish society was held on Thursday, the 3rd of September, when a great Dahlia competition took place, and premiums were awarded for the finer fruits of the season. The show, both of flowers and fruits, was extensive and excellent. They were exhibited to the public from two till five o'clock, and filled two marquees or tents on the lawn.

In Dahlias, which formed the grand object of the day, a separate competition of twenty flowers was held between nurserymen among themselves, and between the practical gardeners of private gentlemen among themselves.

The first Nurserymen's prize was awarded to Messrs. Thomas and William

Handasyde, Fisherrow, whose flowers were—Hero of Salisbury, Virgin Queen, Dane Croft Rival, Squib's Amulet, Rival Sussex, Argo, Metella, Rhoda, Grace Darling, Optima, Girling's Evadne, Lady Kinnaird, Model of Perfection, Duchess of Devonshire, Ruby, Emulator, Rienzi, Rosalie, Bree's Rosa, and Marquis of Lothian. Another prize was voted to Messrs. Eagle and Henderson, Edinburgh, who produced Squib's Purple Perfection, Dodd's Mary, Marquis of Lothian, Queen of Sarum, Duchess of Richmond, Francis, Hope, Lady Dunglass, Argo, Springfield Major, Climax, Grace Darling, Rienzi, Banks of the Tyne, Seedling of 1839 (not named), Unique, Beauty of the Plain, Seedling (not named), Wallace, and Beauty of Sevenoaks.

For the Practical Gardeners' prize there were nine competitors, and the committee therefore made four awards. The medal was assigned to Mr. Wm. Thom, gardener to David Anderson, Esq., of St. Germain's, whose kinds were Rival Sussex, Amato, Unique, Hero of Sevenoaks, Virgin Queen, Marquis of Lothian, Suffolk Hero, Royal Standard, Homer, Bree's Rosa, Topaz, Sir Henry Fletcher, Essex Rival, Horwood's Defiance, Egyptian King, Duchess of Devonshire, Model of Perfection, Eva, Lady Powlet, and Springfield Rival. The second prize was voted to Mr. Peter Thomson, gardener to J. J. Hope Vere, Esq., of Craigiehall, for Lady Middleton, Dodd's Mary, Bowlinggreen Rival, Egyptian King, Grace Darling, Conqueror, Hope, Mountjoy's Rosa, Bree's Rosa, Unique, Marquis of Lothian, Lord Howe, Rienzi, Birmingham, Premier, Monarch, Virgin Queen, Beauty of the Plain, Lady Dunglass, Duchess of Devonshire, and Rival Sussex. A third premium was awarded to Mr. George James, gardener to James Balfour, Esq., of Pilrig; and a fourth to Mr. James Lindsay, gardener to Patrick Chalmers, Esq., of Aulbar, Brechin.

The show of Carnations was also very rich. The medal was found due to Mr. John Young, gardener to Sir James Gibson Craig, Bart., of Riccarton, whose flowers were—Fair Helen, Ive's Leopold, Falstaff, Lady of the Lake, William the Fourth, Cannon's Flake, Miss Mitford, Byron, Rob Roy, Countess of Airlie, Ramsay's Favourite, and Wild's Perfection. A second prize was awarded to Mr. John Young, gardener to Thomas Oliver, Esq., Newington Lodge; and a third to Mr. Peter Brown, gardener to John Sanderson, Esq., Dundee; both collections being admirable.

To Messrs. Sang, of the Kirkaldy Nurseries, a premium was voted, for a fine flowering specimen of the curious and rare epiphytal climber, *Æschynanthus grandiflorus*: the first time it has been seen in flower in Scotland.

A collection of Seedling Fuchsias, hybrid between *F. fulgens* and *F. grandiflora*, seed sown only five months ago, was sent by Mr. Thomson, Craigiehall; and another collection, raised in East Princes-street Gardens, was communicated by Mr. Scott, Nurseryman.

A rich collection of Seedling Carnations, raised at South-hill, Burntisland, by Miss Cecilia Wemyss, was much admired; as was also a very fine set of Seedling Picotees, raised in Drylaw garden.

Several promising Seedling Dahlias were exhibited; but no premium had this year been offered for seedlings. One raised by Mr. Alexander Macdougall, gardener, Beechwood, seemed remarkably good.

The thanks of the meeting were voted to William Grierson, Esq., for a donation of tracts on Bee Culture by Cottagers; and to Robert Smith, Esq., for a large living specimen of *Cereus Coulteri*, lately imported. Likewise to Messrs. J. Dickson and Sons for many beautiful plants exhibited, doing great credit to Mr. Kelly, their cultivator; among which two very splendid *Geranium* plants deserve to be particularised, a Foster's Rosa and a *Speculum mundi*, both about eight feet in circumference around the branches, although the plants were not two feet high, and both well clothed with flowers; to Mr. John Henderson, gardener to Sir George Campbell, Edenwood, for elegant Seedlings of *Phlox Drummondii*; to Messrs. Sang, of Kirkaldy, for a splendid collection of Carnations; to Mr. Peter Gammell, Hermitage, for fine China Asters and French and African Marigolds; to Mr. Butters, at Olive Bank, for curiously-striped Dahlia flowers; to Mr. David Foulis, Woodhouselee, for fine Hollyhocks; to Messrs. Handasyde, who gained the first prize for Dahlias, for an additional collection of sixty flowers, and for choice striped French Marigolds and China Asters

Thanks were also voted to Mrs. Brown, Primrose Bank; and to Mr. Lothian, Hope Park, for very large and beautiful specimens of Jargonelles; also to Mr. Low, gardener to Robert Cadell, Esq., Hailes, for a beautiful cluster of the White Muscat Grape, weighing 3lbs.

NORWICH AND NORFOLK HORTICULTURAL SOCIETY.

The prizes were awarded as under:—

The 25 Guinea Silver Cup—Messrs. Brown, of Slough, for Amato, Suffolk Hero, Ne plus Ultra, Robert Burt, Springfield Rival, Metella, Utopia, Nicholas Nickleby, Le Grand Baudine, Windmill-hill Rival, Hope, Maria, Squib's Defiance, Springfield Purple, Unique, Regina, Beauty of the Plain, Rival Sussex, Eva, Maresfield Rival, Duchess of Richmond, Rienzi, Grace Darling, Penelope, Bontishall, Defender, Annot of Lisle, Pickwick, Doctor Syntax, Cox's Defiance.

The second prize in this class, being the entrance money paid—Mr. Church, of Burnham, for Advocate, Dane Croft Rival, Eva, Ianthe, Amato, Glory of Plymouth, Lady Dartmouth, Suffolk Hero, Meteor, Egyptian Prince, Coronat, Lady Wetherel, Lady Middleton, Miss Johnstone, Horwood's Defiance, Cox's Defiance, Pickwick, Beauty of the Plain, Rival President, President of the West, Duchess of Richmond, Nicholas Nickleby, Countess of Pembroke, Grand Turk, Royal Standard, Advancer, Unique, Windmill-hill Rival, Climax.

The 10 Guinea Amateurs' Cup—Robert Copeman, jun., Esq., for Essex Rival, Optime, Conductor, Meteor, Ne plus Ultra, Henrietta, Cupped Crimson, Jones's Francis, Rival Sussex, Cox's Defiance, Rival President, Pamplin's Bloomsbury, Amato, Virgin Queen, Rienzi, Beauty of the Plain, Pickwick, Argo, President of the West, Lady Bathurst.

Second prize, being the amount of entries—R. Overman, Esq., for Metella, Advancer, Unique, Springfield Rival, Miss Johnstone, Hylas, Beauty of the Plain, Rival Sussex, Duchess of Richmond, President of the West, Windmill-hill Rival, Suffolk Hero, Glory of Plymouth, Girling's Contender, Lewisham Rival, Amato, Lady Middleton, Grace Darling, Eva, Optime.

QUERIES.

ON THE TREATMENT OF GERANIUMS, &c.—I am aware that splendid specimens of Geraniums are obtained by the new mode of culture; but is it possible that a plant of "Joan of Arc" could have attained the height of *four* feet, and a diameter of *six*, as stated in the present month's Cabinet? Was not six feet in *circumference* meant? If no mistake has been made; cannot you obtain, for the benefit of your subscribers, an account of Mr. Cock's method of growing the plant, and particularly the time that elapsed between striking the cutting, and exhibiting it? A full description of some of the best hybrid Fuchsias would also be very acceptable, especially those which partake of the glowing tint of fulgens. When will Mr. Smith's seedlings be offered for sale? Was there not a *new species* exhibited in London this spring by Mr. Standish, which obtained a medal, though not in bloom; has it since blossomed, and what are its flowers like? Where can "Bignonia Tweediana," and "Silene laciniata," be purchased? Is the latter plant of a dwarf habit, and easy of cultivation? Will "Ipomea Horsfallia" grow and blossom in a conservatory? An early answer to these questions will much oblige

A DEVONIAN.

[The description we gave of the Geranium was correct. We will apply to Mr. Cock for the particulars of his mode of treatment, and give it in an early Number. We will give particulars of a number of Fuchsias in the November Number. Mr. Smith's will be offered early next spring, we can supply any orders.

We saw at the Horticultural Exhibition in the London Horticultural Society's Garden a plant somewhat resembling the *F. fulgens* in habit, but quite distinct; it was not in bloom, but we did not know it belonged to Mr. Standish; we have sent to Mr. Standish for information as to its blooming, &c. *Silene*

laciniata we can supply, it grows about half a yard high. The Bignonia we will inquire about. The Ipomea will do in a warm conservatory, but blooms later in the summer than in a plant stove; it is, however, far surpassed by the *I. Learii*, a more rapid grower, and a much more profuse bloomer. Both, however, well deserve a place wherever they will flourish.—CONDUCTOR.]

REMARKS.

ON *ABUTILON VITIFOLIUM*, &c.—Having been a subscriber to your "Cabinet" from its first commencement, I think it is but proper to correct any error into which that useful publication may inadvertently fall.

In the notices of new and rare plants appears under the head Nurseries, &c. No. 18, September Number, *Abutilon Vitifolium*. Three plants were raised from seeds five years since by Captain Cottingham, Belfield, near Dublin. It is perfectly hardy, stands in an open exposed situation, *not on a south border*. The foliage is larger than any vine leaf, evergreen, and now upwards of eight feet high, growing rapidly.

It is in truth a noble evergreen, perhaps the greatest ornament to our pleasure grounds yet introduced.

There are also growing in the open air, in the same gentleman's gardens, *Ceanothus Azureus*, covering nearly thirty feet of wall, *Carmichaelis Australis*, *Vestia Lycioides*, *Escalonia Rubra* and *Alba*, *Phylladerphus Gordoniana*, together with many others hitherto supposed to be tender.

Dublin, September 14, 1840.

ON THE *PRANGUS PABULARIA*.—Mr. Vigne (Personal Narrative of a visit to Ghuyris, Kabul, and Afghanistan) says, "I have long supposed the Silphium of Arrian to be the *Prangus* of Mr. Moorcroft. At least, I know of nothing else that is so husbanded as food for cattle, excepting perhaps the willow-leaves in Kashmir. It is in favour of this theory that the *Prangus* was well known to the ancients as a gigantic species of parsley. I have seen it growing at a height of 6000 feet in Kashmir, and in ranges between that and 8000 feet. I find that Dr. Royle is of the same opinion. He informs me that the seed of the *Prangus* (*Prangus pabularia*) is brought down by the northern merchants, and sold in the bazaars of Northern India under the name of "Fiturasalyon," to which name, in Persian works, is attached a translation of the description of the *Petroselinon*, (*πετροσίλιον*, or rock-parsley.—*Diosc. lib. 3. § 77.*) Mr. Masson, I think, told me that he imagined the Silphium to have been the scented worm-wood (*Artemisia*) which is so common throughout the East. I did not find it (the *Prangus*) on the Suliman range, though perhaps it may exist there."—See page 100, 101.

It has been ascertained that the *Prangus Pabularia* has been tried on a large scale and in various ways in England; but no instance of the germination of the seeds has occurred. Probably it has been imperfectly preserved, damaged, or too dry; would it be impossible to procure from some person on the spot a sample *carefully* collected, and preserved, and *judiciously* forwarded? The presence of the Northern Indian army may afford some facilities at present, by means of friends and connexions of scientific individuals on the spot.

TRANSCRIBER'S NOTE.

[We sowed the seeds sent us, but none appear to vegetate yet. By a powerful microscope we found a grub had destroyed the seed we examined.—CONDUCTOR.]

PILLAR ROSES.—Several of our correspondents have obligingly attended to the request of *Azalea* in giving a list of Pillar Roses; to what has thus been given, we extract the following descriptions from Mr. Rivers's excellent publication, "The Rose Fancier's Guide," a new edition of which has recently appeared, and in which are many additions to what was in the first edition. We strongly recommend the work to all rose fanciers.

"THE BOURBON ROSE (*Rosa Bourboniana*).—It is now, perhaps, about twelve

years since a beautiful semi-double rose, with brilliant rose-coloured flowers, prominent buds, and nearly evergreen foliage, made its appearance in this country, under the name of the 'L'île de Bourbon Rose,' said to have been imported from the Mauritius to France, in 1822, by M. Noisette. It attracted attention by its peculiar habit, but more particularly by its abundant autumnal flowering: still such was the lukewarmness of English rose amateurs, that no attempts were made to improve this pretty imperfect rose by raising seedlings from it, though it bore seed in large quantities. This pleasing task has been left to our rose-loving neighbours the French, who have been very industrious, and, as a matter of course, have originated some very beautiful and striking varieties, and also, as usual in such cases, have given us rather too many distinct and fine-sounding names attached to flowers without distinctive characters. In a little time we shall be able to rectify this very common floricultural error. Many fables have been told by the French respecting the origin of this rose. The most generally received version of one of these is, that a French naval officer was requested by the widow of a Monsieur Edouard, residing in the island, to find, on his voyage to India, some rare rose, and that, on his return to L'île de Bourbon, he brought with him this rose, which she planted on her husband's grave: it was then called Rose Edouard, and sent to France as 'Rose de l'île de Bourbon.' This is pretty enough, but entirely devoid of truth. Monsieur Bréon, a French botanist, and now a seedsman in Paris, gives the following account, for the truth of which he vouches:—'At the Isle of Bourbon, the inhabitants generally inclose their land with hedges made of two rows of roses, one row of the Common China Rose, the other of the Red Four Seasons. Monsieur Perichon, a proprietor at Saint Benoist, in the isle, in planting one of these hedges, found amongst his young plants one very different from the others in its shoots and foliage. This induced him to plant it in his garden. It flowered the following year; and, as he anticipated, proved to be of quite a new race, and differing much from the above two roses, which, at the time, were the only sorts known in the island.' Monsieur Bréon arrived at Bourbon in 1817, as botanical traveller for the government of France, and curator of the Botanical and Naturalization Garden there. He propagated this rose very largely; and sent plants and seeds of it, in 1822, to Monsieur Jacques,* gardener at the Château de Neuilly, near Paris, who distributed them among the rose cultivators of France. M. Bréon named it 'Rose de l'île de Bourbon;' and is convinced that it is a hybrid from one of the above roses, and a native of the island. Owing to the original being a hybrid, the roses of this family vary much in their characters: those that retain the leading features I have termed true Bourbons. I shall now notice and describe a few of the most striking and distinct varieties of this very charming group; and begin with Armosa, quite a new variety, very double and perfect in the shape of its flowers, which are of a delicate rose-colour: the plant is of medium growth. Augustine Lelieur is a charming rose, a true Bourbon, so vivid and so beautiful that it cannot be too much recommended; its flowers are very erect and bell-shaped, and as fine in October as in June. Centifolia is a rose equally fine, but quite different in colour, which is delicately pale, something like the old Celestial Rose: its flowers are more double than those of Augustine Lelieur, and quite pendulous from their weight; also a true Bourbon. Diaphane is a small high-coloured rose, almost scarlet. This is not a true Bourbon, but a very pretty rose, of dwarf growth, adapted for the front of a border. Dubourg is also a hybrid Bourbon, of a different character to the last, as it is very robust and makes long shoots, generally terminated by a fine cluster of flowers: in rich soils this will make a fine pillar-rose. Duc de Grammont is also a hybrid Bourbon, very dwarf in its habit, with flowers of fine shape, and very double, inclining to purple. Earl Grey is a genuine Bourbon Rose, of first-rate excellence, with large and double flowers, of a fine rose-colour, and the plant of compact though vigorous growth; its flowers have a fault too common with these roses; they do not open well. Faustine is now an old variety; but a very pretty little rose, very dwarf in its habit, with flowers of that silvery-pale blush, so peculiar to some varieties in this group."

* Whence the name often given to the Common Bourbon Rose of "Bourbon Jacques."

(To be continued.)

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.

REFERENCE TO PLATE.

THE very pretty hybrid Pink was raised by Mr. James Moore, gardener to Miss Garnier's, Wickham, Hants, from seed obtained from *Dianthus superbus*, impregnated with the China pink. The plant is quite hardy, more vigorous than the China pink, and the colouring is much deeper. It has too the delightful fragrance of that species. It merits a place in every flower garden.

POTENTILLA GARNIERIANA.—This is by far the most beautiful of the *Potentillas* we have seen. It was also raised by Mr. Moore, who is entitled to the thanks of a floricultural public for his industry and success in obtaining the plants figured in our present Number. The *Potentilla* is quite hardy, grows vigorously, and is a most profuse bloomer. It certainly deserves to be in every flower garden, where it would be an ornament from May to November.

ANAGALLIS —This very pretty Pimpernel has been raised by Mr. Joseph Plant, Florist, Cheadle, Staffordshire. We are very glad that Mr. Plant's industry in raising beautiful hybrid plants is crowned with such success. His unrivalled shrubby Calceolarias, Gladioluses, Anagallises, &c., have for several years been some of the greatest ornaments to the flower garden, and very justly entitle him to the support of a floricultural public, and which we doubt not he will, as heretofore, continue to receive.

6

OCTOBER

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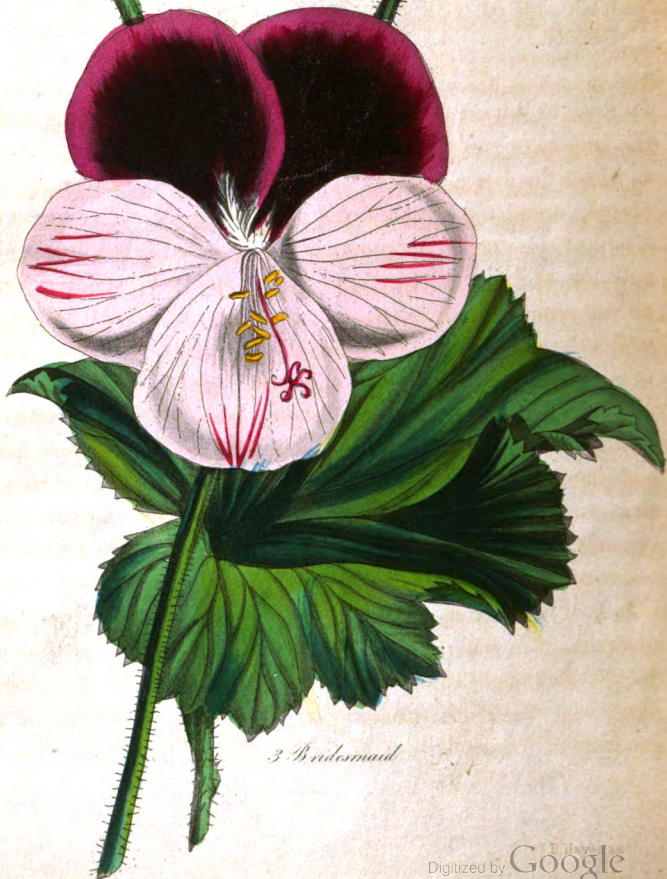
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1 Guardsman

2 Gem of the West



3 Bride's maid

THE
FLORICULTURAL CABINET,

NOVEMBER 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

**REMARKS ON THE NECESSITY AND ADVANTAGES OF THE
LABOURS OF THE LANDSCAPE AND ARCHITECTURAL GAR-
DENER,**

BY MR. J. MAJOR, KNOSTHORPE, NEAR LEEDS.

IN order to prevent the numerous errors which so frequently confront the landscape gardener in his profession, from the improper manner in which the house, stables, offices, and other accompaniments, are placed, allow me, through the medium of the FLORICULTURAL CABINET, to suggest the propriety of his being called in conjointly with the architect to fix these sites, because he ought to be the proper person to judge as to the best views and general scenery over which the house is to preside, and the point for the principal entrance to which he has to direct his approach. Moreover, in fixing these sites, the landscape gardener takes into consideration the quantity of land that would be necessary for pleasure ground, kitchen garden, and planting for shelter; and to have the offices, stables, yards, &c., so arranged as not to interfere with the privacy and interest of these grounds, and also in a manner to admit of disagreeable objects being screened out with planting. To be more explicit, I will take the liberty of mentioning two examples at present under my superintendence. To one of these places I was called in to arrange plans for the formation of the grounds, &c. The site for the house was fixed, and the plans arranged for the buildings, and, to my great annoyance, the back part of the house, stables, yards, &c., were

placed to occupy a great portion of an undulated and very interesting part of the ground, and the only part that was sufficiently retired for the pleasure ground, which left no doubt, had the arranged plan been adopted, the whole place would have been entirely spoiled: the best entrance would have been amongst the back premises, the gates and lodge within twenty yards of the front door, and the kitchen garden in view of the principal living rooms; but however, no operations had yet commenced. I changed the position of the house, and fixed the gates a few hundred yards from it, and formed an interesting drive through the grounds, and placed the kitchen garden out of view from the house, and so as to be approached in connexion with the pleasure ground. With regard to the other place, I have not been so fortunate. Here I found a mansion with three beautiful finished fronts, all void of a carriage entrance: this was placed in the centre of the back part of the house, in right angles with a large wing, forming the kitchen and various offices, within twelve feet of the centre of the portico. To this I had to make my approach; and of all the miserable blunders I have had to encounter, this is the worst. The projecting wing prevents the carriage being drawn nearer to the centre of the portico than from six to eight feet. I might mention numerous defective cases which have come under my notice; but sufficient has been adduced to show that, were the landscape gardener consulted in the first instance, such glaring evils would be prevented; and I may add, much might be saved in both trouble and expense.

J. M. begs to refer to his advertisement in this number, on his method of heating forcing compartments; the formation of ponds, lakes, &c.

ARTICLE II.

ON THE CULTURE OF GREENHOUSE AZALEAS (*AZALEA INDICA*).

BY MR. WILLIAM CHITTY, STAMFORD HILL, NEAR LONDON.

OBSERVING that very little is said respecting the cultivation of Greenhouse Azaleas throughout the pages of your invaluable Magazine, and conceiving there is some little ambiguity in the mode of

treating them as stated by Mr. Menzies at page 8 of the first volume, I have presumed to send you an account of their treatment for insertion (if you deem it worthy) in your truly interesting and very instructive Magazine.

As soon as the plants have done flowering, if shifting is necessary, prepare some compost mould for them in the following proportions: two-thirds bog earth, one-third well decomposed tree-leaf mould, and one-twelfth sharp silver sand: they must not be sifted, but well chopped and broken with the spade; any lumps remaining may be broken with the hand. Having a pot a size larger than the one the plant to be shifted has been growing in, and washed clean inside and out, then proceed to pot the plant, taking care the drainage is well attended to, for upon this depends in a very great measure the success of the plant. In potting, I think it an advantage to place the centre of the ball rather lower than the mould at the outside of the pot, and form as it were a little basin inside, as by this means the whole mass of roots is benefited by the water given from time to time; and if the drainage is effectually performed, the water will pass through as freely and quickly as when the plant is potted high in the pot. The plants being potted, place them in the stove, where attention must be paid to watering when necessary. They will be very much benefited by being syringed all over at least once a day; and in sunny days they will require to be syringed three or four times each day. With this treatment they will grow amazingly, and in the course of six or eight weeks will have made shoots from three to nine inches in length. They must be kept in the stove till the flower-buds for the ensuing year have attained the size of a small pea, which can easily be ascertained by feeling the ends of the shoots; they should then be placed in the greenhouse for ten days or a fortnight to harden, when, if the weather is suitable, they may be placed out of doors in a cool airy situation, till the time for taking in the general stock of greenhouse plants.

Where the plants have bloomed so profusely as almost to exhaust them, tie some moss round the principal stems, and keep it constantly moist; this will cause them to break regularly and grow freely.

Where there is not the convenience of a stove, I would recommend

that the plants be kept in the greenhouse till the buds are well set; and should this happen so late that there are but two or three weeks for them to have the advantage of the open air, still setting them out will be found highly serviceable.

If the foregoing particulars are attended to, the evil spoken of at page 215 of the sixth volume of the *FLORICULTURAL CABINET* will be of very rare occurrence, for the roots are emitted in such abundance as completely to fill the pots; and instead of being liable to perish from over-watering, it will be almost impossible to give them enough, the close mass of thirsty roots absorbing an almost incredible quantity of moisture. Treated as above described, all the species and varieties of this splendid tribe will answer the most sanguine wishes and expectations of the cultivator; and I think it is impossible to bloom some of the sorts properly, as *Phoenicea*, *Smithii*, and others, under any other mode of treatment:—instead of producing here and there a flower, as is commonly the case, the *Phoenicea* will be one entire mass of bloom, expanding its brilliant purple flowers from two and a half to three inches across, and commanding the admiration of all who behold it.

Where it is required, and the stock of plants is sufficient, the blooming season may be protracted from September till June.

I hope the above remarks will be found useful to some of the readers of the *CABINET*.

P.S. Allow me to suggest, that I think it would give an impulse to the cultivation of those splendid and increasingly interesting flowers, the Chinese *Chrysanthemums*, if you would publish a double number, containing six or eight correct engravings of the very best varieties of this admirable flower; also specifying the habit of each, and whether flowering in the early, middle, or late season.

[We will give the matter our attention; and having obtained a new assortment from the continent, which are very highly spoken of, should there be any of superior merit, we will not fail to have correct figures given.—CONDUCTOR.]

ARTICLE III.

ON THE RHODANTHE MANGLESII.

BY A. B.

I **BEG** to call the attention of your readers to an annual which is generally classed among the tender ones, and on that account does not arrive at the perfection it otherwise would. I have at present a plant of that annual "Rhodanthe Manglesii" in bloom, on which there are upwards of sixty blossoms, which in the heat of the day all expand at once, and from its beautiful pink colour is very showy in the front part of the border. In 1839, I raised some plants under glass, and kept them in the same place when in bloom. This year I raised them in the same manner, but turned them out into the open border in May, where I have found them quite as hardy as most other annuals.

[Some time back we grew the Rhodanthe and Leptosiphon densiflorus in pots for spring ornament, which succeeded admirably: we recommend the plan to our readers. The method practised was to sow the seed in autumn, and keep the plants in a dry cool frame or cool greenhouse through winter; and in April, May, June, and July they bloomed profusely in the greenhouse, and were highly ornamental. Since then the plan has been adopted in two of the London nurseries with very great success. We saw numerous pots of plants, near two feet high, quite a mass of bloom. With our correspondent, A. B., we strongly recommend the culture of the Rhodanthe both in pots and open borders, and equally so the Leptosiphon, which, when sown in autumn and bloomed in pots in the greenhouse or conservatory, or a room window, is so superior in the size and beauty of its blossoms to what is usual in the open bed as scarcely to be known to be the same plant.—CONDUCTOR.]

ARTICLE IV.

ON THE CULTURE OF HERBACEOUS CALCEOLARIAS.

BY A KENTISH MAN.

THE autumn season being the best time for increasing the Herbaceous Calceolarias, I send my mode of treatment, which has been

eminently successful, for insertion in an early number of the **FLORICULTURAL CABINET**.

During October and November all those off-shoots that are undermost throw out a quantity of small rootlets; the shoots being taken off, and potted immediately, establish themselves. I pot them separately into small pots, in a light sandy loam and vegetable mould equal parts. Immediately on potting I place them in a close frame for about a month: this closeness very materially contributes to an immediate growth, for, when exposed to a stronger current of air, it has a tendency to dry the foliage and injure the plant. Whilst in the frame I keep the soil moist, but am careful not to wet the foliage, as it would be likely to rot the plants. At the end of November I have the plants placed on a shelf near the glass in a greenhouse, where they remain during the winter. In this situation they grow freely, and if the pot becomes filled with roots I re-pot into a larger; this encourages the plant to grow in size, without which weak blooming shoots would in all probability push, to the injury of its proper blooming the following season.

At the end of March, I re-pot the whole into twenty-four-sized pots, using a sandy loam enriched with well rotted cow-dung: the latter is found very beneficial; being of a cooler nature than horse-dung, it is more suited to the Calceolaria. At the end of April, or first week in May, I re-pot into twelve-sized pots, using the same kind of compost. At each potting a free portion of drainage is given, to admit the water to run off easily: this admits a greater proportion of water being applied, and affords a corresponding quantity of nutriment. I use fresh water and liquid manure regularly from the potting into twenty-fours, using the liquid manure every third watering. The plants are kept in the greenhouse during the time from autumn to the close of their blooming, which is usually the end of July. At that time, the stems being withered, I re-pot those I wish for extra-sized plants the following year, by reducing the balls of earth and potting them into pots about half the size they had been growing in. After potting, they are placed in a cool frame, and shaded from hot sun for a month. I then expose them to the open air, placing them in the shade from mid-day sun, till about the middle of October, when I remove them into the greenhouse as before. In March and

April following they are again re-potted, and treated as above named during the former year. It is my practice to take off a quantity of offsets each autumn, so that I have a stock of large two-year-old plants to bloom every season.

By this mode of treatment I succeed in having plants from two to four feet high, stocked with blooming shoots in every part, so as to form a head of flowers about a yard in diameter.

Having a considerable number of plants, I usually turn out some into the open border, choosing a situation where I can have shade from eleven till four o'clock in the afternoon, the intense heat of mid-day sun being injurious to this tribe of Calceolarias, they requiring more shade and moisture than shrubby kinds do.

Having an opportunity of collecting seed, I raise many seedling plants. As soon as the seed is ripe, which from earliest blooms will be the case by the middle or end of July, I sow it in pots placed in a shady part of a hot-bed frame or forcing house. The plants soon come up. I take care to keep the soil moist but not wet, as the tender roots are soon rotted off. When sufficiently strong to pot off, which they usually are by the middle of September, I pot them into sixty-sized pots, well drained, in a compost of equal parts of well rotted vegetable mould and loam. After potting, they are placed in a cool frame, kept close and shaded from mid-day sun for a week or two, gradually exposing them to the air. When strong enough to bear a removal without injury, I have them taken to the greenhouse and placed in a shady situation. By the end of autumn the plants are quite strong, and will withstand a winter's treatment without injury; and by thus getting them forward, they bloom during the following season. This mode of immediate sowing of the seed after gathering will not do for late collected seed, as very young plants are liable to damp off during winter.

ARTICLE V.

ON THE CULTURE OF PELARGONIUMS.

BY THE FOREMAN OF A LONDON NURSERY.

PELARGONIUMS are usually denominated Geraniums, although they constitute a very different family. The following mode of culture

applies to the shrubby class of Pelargoniums, usually exhibited at the floral meetings for competition.

They always succeed best when grown in a house apart from other plants, and to be placed upon a stage as near to the glass as circumstances will admit: thus placed is a most essential point in their culture. Where a greenhouse is of necessity appropriated to other classes of plants, then it is best to have pit frames to grow the Pelargoniums in till blooming season, and when the flower stems have pushed about half their length, to introduce the plants into the greenhouse for blooming. When they are in the greenhouse, and the petals are bursting the calyx, the temperature must be kept high, and be kept so till blooming is over: if it is desired to have large and bold flowers, this attention is very necessary, and, though at a hot season of the year, the house should be kept closed in a great degree, using a canvass shade when mid-day sun is intense. This mode of treatment with blooming plants is the principal reason of the flowers exhibited by the London growers being generally so superior in size to any I ever saw in the country.

Having thus premised as to situation, &c., I shall commence with observations on culture at the period of propagation.

About the middle of July the cuttings are taken off, and inserted in loam and leaf mould; then placed in a cool frame, plunged to the rim, which is kept pretty close, and shaded from the sun. Sometimes, instead of being inserted in pots, the cuttings are inserted upon the bed; this is especially the case when a considerable quantity is required.

As soon as the cuttings are rooted, they are carefully removed, so as to retain the new roots, and potted separately into what are termed forty-eight-sized pots, in a compost of equal parts of well-enriched loam and sandy peat. After potting, they are placed in a warm situation in the open air, where they can be shaded for a short time, till they can bear the sun, after which they are fully exposed. Where there are frames to place them in, the facility for readily shading is afforded. Some of the extensive growers have boards a foot or so deep placed along the sides at about five feet apart, and have hoops over, so as to throw mats over for shading, protection from excessive wet, or to afford security against a sudden frost in autumn.

About the last week in September, the plants are usually removed into the house or cool frame, where they are placed as near the glass as circumstances admit of. When fire heat is required, its application is only so as to keep the temperature of the house at about forty degrees, and, whenever admissible by day, to give all that can be, so frost is kept out.

In the first week of February the plants are re-potted into twenty-fours, or, if there be any very vigorous, into sixteens: a liberal drainage is given, and a compost is used consisting of one half of well enriched loamy soil; the other, leaf mould and sandy peat. When potting, the heads of the shoots are pinched off to induce the production of lateral ones, and cause the plants to become bushy. After this potting, the temperature of the house is increased for about three weeks, so as to stimulate the roots immediately to push afresh, as well as to obtain an early supply of new shoots.

At the end of March the plants are carefully examined, and very freely thinned of the lateral shoots, and a regular distribution retained. In order to have the plant uniform in growth, a small stick is put to each shoot, to which it is secured, and the arrangement made so as to be uniform. Those plants that have filled the pots with roots require shifting into larger, and they are carefully done, keeping the balls entire, as in the former potting.

About the end of April, or the first week in May, the plants are looked over again, and a considerable thinning of the shoots again takes place, leaving the most vigorous ones for blooming. A careful attention is always given to the watering of the plants, to prevent them flagging. Where there is the opportunity, and superior specimens are desired, liquid manure water is occasionally given; the plants too are frequently syringed over the tops. When the green fly makes its appearance, either the house is smoked or diluted tobacco water is syringed over the plants, which effectually destroys the insect. Plants thus attended to become fine specimens, blooming profusely and vigorously.

When the blooming season is over, the plants are headed down, so as to leave each shoot about three inches long. As soon as they have pushed shoots about two inches long, they are re-potted; the old soil is nearly all shook off the roots; they are shortened too, and

again planted, each in a pot two sizes less than it had been in. Where there are numerous lateral shoots now produced, they are stripped off, so as to leave but a due proportion. These plants are again re-potted in February into twelves, in a compost as before directed; they are afterwards thinned and otherwise treated, as done the previous year. These plants make superior specimens to the first season in size and vigour. When, however, an extraordinary specimen is desired, the plant is not allowed to bloom much the first year, so as to throw all the vigour possible into the wood: it is cut down, as done to the others, to furnish a supply of laterals, and treated in all other respects as above directed.

Those persons who have not seen the superb specimens exhibited by the London growers, can scarcely form an idea of their superiority over what are seen in the country. By the above attention, plants are obtained of the most healthy and vigorous growth, two to four feet high and three to four in diameter, unique in form, and so clothed with fine foliage down to the rim of the pot, that not a stem is seen; and I have counted upwards of a thousand *trusses* of flowers on a plant of Joan of Arc, and a similar profusion on many other kinds.

I admit that a little *regular attention* is required by this mode of treatment; it is, however, but trifling, and the result very far more than compensates for it.

I know of no tribe of plants (the Dahlia excepted) where greater improvement has been effected. It is but little more than twenty years since the first hybrid productions of the late Mr. Davey, of King's Road, Chelsea, were raised, viz., "Prince Regent," "Commander-in-Chief," and then the celebrated "Daveyana;" but what has been effected since then, both in superb striking-coloured flowers, perfection in form, and a mode of culture which it was then scarcely thought to be attainable!

I well recollect visiting, on several occasions, the collection of Mr. Davey, when he was in the zenith of his Geranium culture, and observing with what increased admiration every new and varied production was hailed by him; but had he been living at the present period, what would have been his feelings of delight to have seen the collections of Messrs. Foster, Garth, Gaines, Catleugh, Cock, Hen-

derson, and many others too numerous to detail. The floricultural public are greatly indebted to the four first named gentlemen for their industry and success in raising the very splendid productions they have done.

I have been much pleased with the very just descriptions of the recent new fine kinds, as given in several late numbers of the FLO-RICULTURAL CABINET. Never were so many strikingly fine kinds brought out in one season as have been this year: they are deserving a place in every greenhouse, &c.

ARTICLE VI.

A METHOD OF SHOWING THE EFFECT OF BOX, OR OTHER EDGINGS, IN FLOWER GARDENS.

BY T. W., WALTON NURSERY, LIVERPOOL.

To those who intend laying out plots of ground as flower gardens in the old Dutch or Italian style, with box or other-edgings,—a style of gardening I should be glad to see more prevalent, especially where the limits are confined, from the simple fact that regular forms are always pleasing, and as many beautiful designs for such gardens have appeared in the CABINET from time to time,—perhaps the following method of showing the effect of such a garden may not prove uninteresting.

Having fixed on a design, the ground is dug, made smooth and level; the figures are traced thereon in the usual way with exactness. Instead of pegs, I take a barrowful or two of light-coloured sand, which is strewed on the traced lines about an inch in thickness, in a neat and compact manner: this in a few minutes becomes white and dry. The effect is really very pleasing. You have as it were a garden with edgings of sand, which, contrasted with the dark soil, looks as handsome as box itself. By this method the unsightliness of a multitude of pegs is avoided, which to most minds, especially where the figures are complicated, appears intricate and perplexing, to say nothing of the difference in the labour. The effect of a large garden may be shown in a beautiful manner by the above method in a very short time. Another material advantage is its permanency:

during the absence of the proprietor, or from any other cause, it will remain in the same state for a long time.

I am afraid that some persons may smile at the simplicity of the above remarks; but I am confident that on trial they will be duly appreciated, and as the season for performing such operations has now arrived, I trust they will be the more acceptable.

ARTICLE VII.

ON THE CULTURE OF LATHYRUS GRANDIFLORA.

BY T. W., WALTON NURSEY, LIVERPOOL.

It may appear somewhat strange to write on such a well-known plant as the "Lathyrus grandiflora," which has been banished from most gardens on account of its rambling propensities; but I can assure the readers of the CABINET that, under proper treatment, this common but beautiful flower may be rendered a very interesting object. Having found it utterly impracticable to keep this plant in anything like ordinary bounds, I have adopted the following method:—In any convenient part of the flower garden I sink a strong oak tub, containing about two bushels of good loamy earth, within three inches of the rim; in this I plant from six to eight plants. I then place a cone of wire about six feet high, and as the plants grow they are trained equally over the wire, which, as the season advances, will be literally covered with a profusion of brilliant flowers, rendering it one of the most attractive objects imaginable. The rim of the tub, being three inches above the soil, prevents the plants from running in confusion amongst the other flowers. The rim may be concealed by some low growing plant, such as "Arenaria Balearica."

Plants treated in the above manner appear to the best advantage when standing singly on a lawn. The plants will require taking up and replanting about every three years. A few should be kept in pots to supply any casualty that may happen from frost or otherwise.

BOURBON ROSES.

(Continued from page 231.)

Gloire de Rosomène is a hybrid of most remarkable habits. Its large foliage, luxuriant growth, and beautiful semi-double crimson flowers, make it one of the

most desirable of this division; but not for grouping, as it outgrows all its congeners. As a pillar rose it will form a splendid object; indeed, I cannot imagine anything more imposing in floriculture, than a pillar from twelve to fifteen feet high, covered with the splendid flowers of this rose from June till October: it will also form a fine standard. *Gloire de Guerin*, like the last, departs from the characters of the group; but, like all that I have retained, it has the pleasing feature of autumnal flowering. This is a dwarf rose, adapted for the front of the rose border. *Henri Plantier* is a good variety, with large and double flowers, of nearly a bright carmine: this, like *Augustine Lelieur*, may rank among the finest of the true Bourbon Roses. *Ida* is also a beautiful rose, with much smaller flowers, perhaps of a still deeper carmine. The plant is dwarf, yet possesses all the characters of the true Bourbon Roses in the prominence of its buds, and in its foliage. *La Tendresse* has flowers of a silvery-pale rose-colour, very double and large. Its habit is robust, hardy, and luxuriant, fit for the centre of the rose bed. This is a most distinct and desirable variety. *Latifolia* is a fine bold rose, much like *Augustine Lelieur* in its colour and habit; a good rose, but not required in a collection where that rose is grown. *Madame Desprez*—this fine and robust rose has never yet bloomed so beautifully in this country as during this autumn (1837): its large clusters of very double flowers have indeed been superb. *Monsieur Desprez*, a distinguished French rose amateur, raised it from seed about five years since. It is, most probably, a little hybridised with the *Noisette Rose*, as it blooms in larger clusters than any other Bourbon Rose. *Marshal Villars* approaches to the *China Rose* in habit, which takes from it that compact growth peculiar to most of the true Bourbon Roses; this has flowers of a bright purple tinge, very vivid and double.* *Phillipart*, if not the same as *Augustine Lelieur*, is too much like it to be grown in the same collection. *Psyché* is a very remarkable rose, a hybrid of humble growth, with double pale pink flowers, of the most perfect shape. *Philemon* is a compact and pretty plant, with flowers of a bright purplish rose, erect, and generally so abundant as to cover the whole plant.

Queen of the Bourbons is a new variety, and very beautiful. Its flowers are of a vivid rose-colour, a little tinged with buff, very large and double. *Phœnix* is also quite new, nearly a true Bourbon Rose of a fine rosy red.

Rivers, so named by a French rose cultivator, who raised it from seed, is a pretty delicate rose, a true Bourbon; and called by the originator an "extra fine rose;" it has not yet bloomed here well enough to support that character. *Thimocles* is a large and fine rose, very double, and a genuine Bourbon, of luxuriant growth, and distinct character. *Victoire Argenteé* is one of those beautiful silvery-pale roses, with very double flowers; a true Bourbon, and a fine and distinct variety. The *White Bourbon* was raised from seed by *Monsieur Desprez*, who annually raises immense numbers of Bourbon and other roses from seed, to procure new varieties. This rose is a little hybridised with the *Noisette*, which has given it a clustered character, and, unfortunately, taken from its flowers that bold and peculiar shape, so beautiful in the Bourbon Roses. The French cultivators are at deadly strife respecting this rose; some swearing, by all their saints, that it is a veritable Bourbon, while others as stoutly maintain that it is a *Noisette Rose*. An Englishman, after listening to such warm disputants (Frenchmen generally are), and to so "much ado about nothing," would coolly turn away and smile at such violent altercation, and their making a trifle "light as air" a matter of such grave importance. *Walner* is a true Bourbon Rose, dwarf, bright-coloured, and very distinct and pretty.

A few very remarkable additions have been made to this family since the publication of the first edition of this little work; which, were it not for the endless variations in which we find pleasure, would seem to leave us nothing more to wish for in Bourbon Roses. Dark crimson varieties, with double and finely-shaped flowers, were desiderata, but are so no longer; for in "*Le Grand Capitaine*," perhaps so named in compliment to our "*Great Captain*," we have one of the most brilliant Crimson Scarlet Roses known: this seems a seedling from

* The flowers of this rose seldom open well; a distinguished rose amateur has expressively, but whimsically, named Bourbon roses of this character "hard-heads."

Gloire de Rosomène, as it has the same serrated foliage and habit. *Glory of Algiers* is equally brilliant and beautiful, but seems to possess a remarkable peculiarity: its flowers have never yet opened when produced upon a budded plant; but as a dwarf on its own roots it has bloomed in fine perfection. *Crimson Madame Desprez* and the *Crimson Globe* seem to be all that can be wished for; they are both of the most robust habits; they bloom constantly, and their flowers open freely: these are of a rich purplish crimson; the latter is the deepest in colour. It will probably form a fine pillar rose, and, as a standard, it will equal in luxuriance of growth the most robust of our Bourbon Roses. *Madame Nerard*, as a pale rose-coloured variety, is most perfect in the shape of its flowers; and *Desgaches*, a vivid rose, nearly carmine, is equally beautiful, and quite first rate. *Pucelle Genoise*, also, is a fine large and double rose, apparently a hybrid of the *China Rose*, as its foliage approaches it in resemblance. *Bouquet de Flore*, *Emile Courtier*, and *Duc d'Aumale*, are true Bourbons, and most perfect and beautiful varieties, with large and double flowers of a deep rose colour.

In the preceding notices of sorts, I have purposely mentioned the habits of those that deviate a little from the characters of the generality; in forming a clump, it will, therefore, be seen which to place in the front, and which in the centre. Several varieties in the catalogue, not noticed here, are equal in beauty to those that are; but as their habits have nothing particularly distinctive, I have, to avoid being tedious, not described them.

Bourbon Roses most certainly show themselves to greater advantage on stems from one to three feet in height, than in any other mode of culture; if on their own roots, they are too near the ground, and the autumnal rains spoil their delicate blossoms, by dashing the dirt upon them. They seem to grow well in all soils; but I should recommend, in spite of the above objection, those who have only a dry and poor sandy soil to have plants on their own roots, as the *Dog Rose* will not flourish in such soils, though cultivated roses in soils of the same description will grow most luxuriantly. Nature often seems to delight to puzzle us gardeners with anomalies that cannot be fathomed, clever as we are in our generation.

These roses require but little pruning; towards the end of March or beginning of April their shoots may be thinned, those that are killed by the winter removed, and long shoots shortened to within four or five buds.

I hope in a few years to see Bourbon Roses in every garden, for the "queen of flowers" boasts no members of her court more beautiful; their fragrance, also, is delicious, more particularly in the autumn. They ought to occupy a distinguished place in the autumnal rose-garden, in clumps or beds, as standards and as pillars; in any and in all situations they must and will please. To ensure a very late autumnal bloom, a collection of dwarf standards, *i. e.*, stems one to two feet in height, should be potted in large pots, and, during summer, watered with manured water, and some manure kept on the surface; towards the end of September or the middle of October, if the weather is wet, they may be placed under glass: they will bloom in fine perfection even as late as November. I consider the culture of these roses only in its infancy; we shall ultimately have the richest hues combined with perfection of form, and the complete plenitude of their flowers.

It is difficult to point out roses of this family that bear seed freely, except the *Common Bourbon*; but *Acidalie*, planted against a south wall, would probably give some seed. If any pollen can be found, it might be fertilised with the flowers of *Julie de Loynes*. A pure white and true Bourbon rose ought to be the object; therefore it should not be hybridised with any other species. *Gloire de Rosomène* may be planted against a south wall, with the *Common Bourbon*, with which it should be carefully fertilised. Some interesting varieties may be expected from seed thus produced. *Queen of the Bourbons*, planted with the *Yellow China Rose*, might possibly give some seeds; but those would not produce true Bourbon roses, as the former is a hybrid, partaking of the qualities of the *Tea-scented roses*. *Dubourg*, planted with *La Tendresse*, would give seed from which some very delicate Blush roses might be raised; and *Phoenix*, fertilized with the *Common Bourbon*, would also probably produce seed worth attention.

PART II.

LIST OF NEW AND RARE PLANTS.

FROM PERIODICALS.

BATATAS BÉTACEA.—Beet-rooted Sweet Potato. (Bot. Reg. 56.) Convolvulacæ. Pentandria Monogynia. A native of Demerara, and, according to the statement of Mr. May, of Leeming Lane Nursery, who had it first for sale in this country, it succeeds well when grown in a good greenhouse. The root is large, fleshy, like the Red Beet. The flowers are produced in clusters, in the way of *Ipomea cœrulea*, whitish, with a rosy pink hue, and a dark inside, giving it a very pretty appearance: Each blossom is about two inches long, and an inch and a half across the mouth. We have found it grow well in a small plant stove, and bloom freely. It well merits a place in every warm greenhouse, conservatory, or plant stove.

CALANTHE DISCOLOR.—Discoloured Fairbloom. (Bot. Reg. 55.) Orchidacæ. Gynandria Monandria. Probably a native of either Japan or Java, but very probably the former. The flowers are produced on a loosish raceme; sepals and petals of a wine-red colour; lip of a rosy white. It requires to be grown in the stove, and, like all the other *Calanthes*, to be grown in a pot, in a good brown-coloured peat soil, and the pot to be well drained.

CYSTANTHE SPRENGELIOIDES.—Sprengelia like. (Bot. Mag. 3826.) Epacridæ. Pentandria Monogynia. A native of Van Diemen's Land, and has bloomed in the Edinburgh Botanic Garden, seeds of it having been sent there by N. B. Ward, Esq., London. The plant is shrubby, the branches growing erect. The flowers are produced singly up the stem, so as to form spikes, and crowded at the extremity to a head: they are of a greenish yellow, small.

ECHEVERIA SECUNDA.—One-sided. (Bot. Reg. 57.) Crassulacæ. Decandria Pentagynia. A greenhouse plant of very easy management, which blooms for many months during summer. Its appearance is somewhat like the common House-leek. The flowers are produced on a recurving raceme, red outside and yellow within, in the form of *Erica ventricosa*, a little more bulging, but shorter.

HARDENBERGIA DIGITATA.—Finger-leaved. (Bot. Reg. 60.) Leguminosæ. Diadelphia Decandria (Synonym *Kennedyia macrophylla*). A native of the Swan River colony. It was raised from seed by a Mr. Toward, gardener to H.R.H. the Duchess of Gloucester, at Bagshot. The plant is a climber, and flourishes in a greenhouse or conservatory, grown in equal parts of loam and sandy peat. The flowers are produced in racemes, each of which are many-flowered, of a pretty violet colour. The plant when trained to a wire frame would be a very interesting object, and well deserving a place in every greenhouse, &c.

HYMENOXYIS CALIFORNICA.—Californian. (Bot. Mag. 3823.) Compositæ, Senecionideæ. Syngenesia Superflua. A native of California, raised in the Glasnevin Botanic Garden, by Mr. Moore. It is a hardy annual, growing a foot high, foliage smooth, very pinnate. The flowers are yellow, each being about an inch across.

LEMONIA SPECTABILIS.—Beautiful. (Bot. Reg. 59.) Rutacæ. Pentandria Monogynia. A native of Cuba, and imported from thence by Messrs. Loddiges, with whom it has bloomed in the stove. The foliage is somewhat like that of a *Psoralea* or *Laburnum*, only being trifoliate. The flowers are of a rosy crimson colour, each being about an inch across. This pretty genus is named in compliment to a most distinguished patron and promoter of botany, and in fact every other useful science,—Sir Charles Lemon, Bart., M.P., whose garden at Carclew, in Cornwall, under the skilful management of Mr. Booth, ranks

amongst the first in the country for new and interesting plants, as well as for well cultivated ones.

LIATRIS PROPINQUA.—Sharp-scale spiked. (Bot. Mag. 3829.) Compositæ. Syngenesia Æqualis. A hardy herbaceous plant, blooming freely during the end of summer and autumn. The flowers are numerous, produced on a spike which rises about half a yard high: they are of a rosy pink colour.

RHODODENDRON ARBORUM.—Cinnamomeum, floribus roseis. Tree Rhododendron; cinnamon leaved variety, with rose-coloured flowers. (Bot. Mag. 3825.) Ericææ. Decandria Monogynia. This very splendid flowering Rhododendron bloomed during the last season in the Manchester Botanic Garden. The curator, Mr. Campbell, remarks:—"We have flowering bunches on it upwards of double the size of that herewith sent." The one sent was about eight inches in diameter, and each blossom about three inches long and two and a half in diameter at the mouth; of a beautiful rosy white, tinged with yellow inside, and beautifully spotted with deep blood red. It is by far the handsomest flowering kind we have seen.

SENECIO HERITIERI, var. Cyanophthalmus.—Heritier's Groundsel, blue-eyed var. (Bot. Mag. 3827.) Compositæ. Syngenesia superflua (Synonym Cineraria Capitula). This is a very beautiful flowering greenhouse plant, and has bloomed in the garden of — Clelland, Esq., Rosemount, near Belfast, Ireland. It very much resembles the old and well-known Cineraria lanata, but the flowers are very different in structure and colour. The petals of the ray are of a pure white, and the centre of a bright blue, with purple black anthers.

TAGETES CORYMBOSA.—Corymb-flowered Marigold. (Bot. Mag. 3830.) Compositæ. Syngenesia superflua. Seeds of this plant had been received of Mr. Leeds, of Manchester, from Mexico, and has bloomed in the open border. It is an annual, flowering numerously. The flowers are of a pretty yellow, stained with a blood-coloured orange. It is a very neat and pretty addition to our annual border flowers.

NOTICED IN BOTANICAL REGISTER, NOT FIGURED.

BETULA.—This birch, the finest of the Himalayan species, has at length been introduced by the East India Company, who presented its seeds to the Horticultural Society. It will doubtless be perfectly hardy, as, according to Dr. Royle, it, and the other species of that country, occupy the loftiest situations in the mountains. Dr. Wallich has given the following account of the species in the *Plantæ Asiaticæ variores*, vol. ii. p. 7:—

"The epidermis of this species of birch is used by the mountaineers instead of paper for writing upon. It is of a very delicate texture, and peels off in large masses, of which great quantities are brought down into the plains of Hindustan, where it is employed for covering the inside of the long flexible tubes of the apparatus used for smoking tobacco, commonly called Hooks. The Sanscrita name of the substance is Bhoorja; in the Bengali language, Bhoorjapattra; and in the Hindustani, Bhojpattra. My worthy friend, Mr. Graves Houghton, Oriental Examiner to the Honourable East India Company, to whom I am indebted for the above synonyms, is of opinion that the word Bhoorja is the etymon of birch, and that it is one of the many proofs of the descent of the Saxon part of the English language from the Sanscrita."

SPIRÆA VISSA.—A name given to a species of Spiræa from Mexico, received by the Horticultural Society from Mr. Hartweg, who transmitted no specimens, but who calls it "a very fine shrub, near *S. arisifolia*." It is a handsome looking plant: it is quite distinct from any previously discovered.

BALBOPHYLLUM LIMBATUM.—This orchidea Messrs. Loddiges received from Singapore. The flowers are of a deep dull purple; the sepals and petals are both fringed with whitish hairs.

DENDROBIUM LANGIOLLE.—A singular kind, belonging to the same section as

D. amplum, which is remarkable for combining the habit of *Bolbophyllum* with the entire structure of *Dendrobium*. The flower is of a pale straw colour. Mr. Cuming sent it to Messrs. Loddiges from Singapore.

CIRRHOPETALUM VAGINATUM.—The flowers of this orchidea are of a pale straw colour. Mr. Cuming sent it from Singapore to Messrs. Loddiges.

ONCIDIUM INCURVUM.—A pretty species, producing numerous flowers on a paniced raceme, of a pretty pink, spotted with white. It has bloomed with Mr. Barker.

PLEUROTHALLIS SERIATA.—The flowers are very small, of a pale yellowish green, marked with rows of purple dots. It was sent from Rio Janeiro to the London Horticultural Society.

CATASETUM TRULLA.—The flowers are green, with a brown stain upon the lip : about thirty flowers are produced on each spike.

CYMBIDIUM PUBESCENS.—Messrs. Loddiges received this beautiful flowering species from Singapore. It has a short raceme of rich purple flowers, spotted with a brilliant yellow. It will soon be figured in the work.

CZEOGYNE CUMINGII.—This orchidea was brought to this country by Mr. Cuming. The flowers are white, with a lip that has a yellow middle.

CATASETUM SACCATUM.—A most extraordinary, strange species. The flowers are large, with rich purple spotted sepals and petals, and a bright yellow lip, covered closely with crimson dots. It has bloomed with Messrs. Loddiges, who obtained it from Guayana.

VALERIANA NAPUS.—Sent by Mr. Hartweg from Mexico to the London Horticultural Society, to be used medicinally in this country. It is a perennial, herbaceous half-hardy plant. The flowers are white.

SOLANUM MACRANTHERUM.—A half-hardy herbaceous plant, having large clusters of beautiful deep purple flowers. It was raised by Mr. Page, nurseryman, Southampton, with whom it has bloomed.

CATASETUM CORNUTUM.—From Demerara. The flowers are produced on racemes, having about sixteen on each, of a dull green, richly spotted with deep blackish purple; lip of a light green, spotted with dark. Bloomed with Messrs. Loddiges.

CATASETUM CALLOSUM.—The flowers are, sepals and petals of a dullish red brown, without spots; lip green, with a yellow tubercle. Bloomed at Messrs. Loddiges.

MYCARANTHUS OBLIQUA.—Another orchidea from Singapore to Messrs. Loddiges. The flowers are small, white.

SARCANTHUS PALLIDUS.—Flowers of a greenish white, with a faint streak of purple through the middle of the sepal, and the intermediate lobe of the lip of a dull yellow. In the Chatsworth collection.

COMPARETTIA ROSEA.—At Messrs. Loddiges. It is a very delicate little plant, having a drooping stem, bearing four or five flowers that are of a rich rose colour. It was sent from the Spanish Main.

NOTICED IN NURSERIES.

At Mr. Lowe's, Clapton Nursery.

TRYALIS BRACHY CERAS.—The plant has not yet bloomed, but has the pretty appearance in habit and foliage of a Jasmine.

GESNERIA MOLLE.—The plant is of a dwarf habit. The flower is scarlet, having the end of the corolla very like *Tropæolum tricolorum* in form.

HIBISCUS CAMERONI.—The flower is large, yellow, with a dark centre; the outer edges of the petals are nearly white.

LECHENAULTIA (nova spec.)—It is said that this new and beautiful species is named *L. Drummondii*, but of that we are not positive. The plant has the habit of *L. formosa*, equally hardy, thriving well in the greenhouse; the flowers are blue.

At Messrs. Loddiges, Hackney.

BORONIA LEDIFOLIA.—The foliage is very pretty, and, with the comely habit of the plant, highly recommends it to notice.

HIBBERTIA CUNNINGHAMIA.—The leaf is of the willow form, having yellow flowers.

PROSTRANTHERA ROTUNDIFOLIA.—The plant is of pretty growth, but we could not learn that it had bloomed.

THOMASIA (nova species).—The leaf is very like that of *Ceanothus azureus*. It is grown in the greenhouse, and makes a pretty plant: not yet bloomed, we believe, in this country.

THUJA FILIPOLIA.—The leaves are very small, produced on very long drooping twigs, having the appearance of *Russelia juncea*. This new species of *Arbor Vitæ* is grown at present in the greenhouse; it is a native of New Zealand.

PHYLLIOCLADES TRICHOMANOIDES.—A shrubby plant, with a pretty foliage. It is grown in the greenhouse.

LAURUS TAWA.—From New Zealand. The foliage is a pretty lively green, of a peach-leaf form; grown in the greenhouse.

DODORA SPATULATA.—From New Zealand, having a willow-leaved foliage; grown in the greenhouse.

LEIOSPERMUM RACEMOSUM.—From New Zealand. The leaf is beautifully serrated and pinnate, giving it the appearance of a handsome kind of *Bignonia*; grown in the greenhouse.

DACRYDIUM TAXIFOLIUM.—From New Zealand. It has the beautiful foliage of the yew tree; grown in the greenhouse.

DACRYDIUM CUPRESSUM.—From New Zealand. The foliage is of a dark green, but beautifully fine, like a fine small-leaved *Pinus*.

VITIA LITTORALIS.—From New Zealand. It has a beautiful pinnate leaf, divided into five; grown in the greenhouse.

ARALIA CRASSIFOLIA.—From New Zealand. The leaf is sword-shaped, with distant serratures; it has a singular but pretty appearance; grown in the greenhouse.

ALSEUOSMIA (nova spec.)—From New Zealand. The foliage and growth is very like a *Correa*, but the plant is quite smooth.

At Messrs. Rollisson's.

PASSIFLORA NEILLII.—The flower is white, with a blue filamentous ray; very pretty and interesting.

AMARYLLIS SWEETII.—The flowers are very large, of a bright crimson. A plant of it was splendidly in bloom in the plant-stove. It deserves a place in every collection of this tribe of plants.

CHOROZEMA LONGIFOLIA.—The leaves are long; and though we did not see it in bloom, we understand it flowers in clusters of twenty in each. The present price is five guineas.

QUERCUS GLABER.—This is the finest leaved oak we ever saw, being about a foot long, and proportionately broad. It has much the appearance of a fine *Magnolia*. We don't know from whence it has been obtained; but whether it will require to be grown under glass or in the open air, it merits a place in either situation. It is a noble looking plant.

JASMINUM SYRINGAFOLIUM.—We did not see it bloom; but the information received with it was that it was a most profuse bloomer, and delightfully fragrant: it is a greenhouse species.

PART III.

MISCELLANEOUS INTELLIGENCE.

LONDON HORTICULTURAL SOCIETY.

Tuesday, Oct. 20.—Dr. Henderson, V.P., in the chair.

A communication was read to the meeting from Mr. Scott, gardener to Sir George Staunton: it appears Mr. Scott was lately successful in blooming the *Nelumbium speciosum*, and the Society requested from him a statement of his treatment, of which he gives the following particulars, viz.:—The plants were kept dry in the winter till the month of February, in a house at the temperature of 50. They were then divided and removed to a stove kept at 80, with a bottom heat supplied to the soil by water at 90. In May they were placed in a box of loamy soil, covered with water at 80, and the temperature of the house ranging from 65 to 95, where they threw up flowers in the month of August, measuring about 10½ inches in diameter, of a bright red colour, and much handsomer than *N. luteum*.

The only plants shown were a collection of Heaths from Mr. Jackson, of Kingston, containing *E. acuminata longiflora*, *Caffra*, *Ventricosa superba*, *Colorans*, *Elata*, *Declinata*, *Concinna*, *Hyemalis*, *Vernix nova*, *Insurgens*, and *Pyramidalis*, all good specimens; and from the Society's garden two varieties of *Catasetum laminatum*, *Zygopetalum crinitum*, *Calanthe densiflora*, and *Bifrenaria aurantiaca*.

Messrs. Lane and Son, of Berkhamstead, sent several boxes of Roses, which were stated to have bloomed in the open ground, exposed to the frosts which cut down the whole of the Dahlias.

Messrs. Wood and Son, of Maresfield, exhibited a box of beautiful Roses grown under the same condition with those of Messrs. Lane.

From S. W. Silver, Esq., F.H.S., were blooms of *Calyonictum speciosum*, raised from seeds imported from Ceylon. This is the *Ipomea bona nox*, or moon-plant of Ceylon, so called from opening its flowers at six o'clock in the evening and closing the following morning; also *Hibiscus caunabiensis*, and new species of *Physalis* and *Clytoria*.

Mr. Lee, nurseryman, Hammersmith, sent a Cactus turbiniformis, and two others.

A basket of *Camellia* blooms were shown by J. Allnut, Esq., F.H.S., and from the Society's garden, flowers of *Hibiscus Wrayæ*, one of the most beautiful of the introductions from the west side of New Holland; the plant from which they were taken is still flowering, and from the appearance of fresh buds promises to continue in bloom during the winter.

A box of seedling Heartsease from Messrs. Lane contained several good varieties, some of them larger than any that we have seen through the season.

The Banksian medal was awarded to Mr. Jackson for Heaths, and Messrs. Wood for Roses.

QUERIES.

ON THUNBERGIA ALATA.—You would confer a great favour if you could inform me, through the medium of your valuable CABINET, the most successful mode of cultivating the *Thunbergia alata*, as mine does not grow so luxuriously as I should wish it to do, the foliage dropping off. An early answer will oblige
Roehampton, Sept. 21, 1840.

A SECOND GARDENER.

[We refer our correspondent to articles on the subject which are given in former numbers of the CABINET. It is very easy of culture: give it a rich soil; and being very liable to be affected by the red spider, the plant should frequently be syringed underside the leaves,—if occasionally with soap suds, or tobacco water, or immersed overhead in the liquid, if the plant be small, the insects will certainly be destroyed, and by such attention may be kept vigorous.—CONDUCTOR.]

ON CULTURE OF GERANIUMS.—Having read in your number of the FLORICULTURAL CABINET for August that you had in preparation an article for the next month on the management and culture of the Geranium, I looked with anxiety for the September publication, and was much disappointed at not seeing the promised information: this I write, hoping that you will not omit giving us some treatise on the cultivation of a plant on which at this side of the water we lay the greatest value.

Roscrea, Sept. 16th.

A CONSTANT READER.

[We hope the article in the present number will be found useful to our correspondent.—CONDUCTOR.]

ON SELF AURICULAS, &c.—Will you have the goodness to inform me if the enclosed flower of a Geranium is Mr. Foster's Sylph; also to give Mr. William Woodmansey a hint to answer my question about Self Auriculas (see January Number, 1839). If it is not convenient at present, he may think of it after next season.

ANDATE.

[The Geranium is Fosterii Rosea. From the past kindness of Mr. Woodmansey we feel assured that the matter will have his attention.—CONDUCTOR.]

ON CANVAS.—Will you have the goodness to inform me in the next month's CABINET whether the canvas recommended by S. A. H. in the September number, page 191, is the kind used by ladies for worsted work, or whether it is a strong kind of muslin he means, and at what price it can be purchased.

P. A. R. T.

[We shall feel obliged if our correspondent S. A. H. will supply the information as early as possible, and on its receipt we will address a letter to be had at the post-office where the above communication was posted.—CONDUCTOR.]

ON CACTI.—I should be glad if some one would give their successful treatment of Cacti. My plan has been nearly to starve them during winter, give them very small pots, and let them grow naturally. My success has been VERY, VERY PARTIAL, having obtained no flowers but on the Speciosa. I have followed this plan from seeing it stated particularly that they should not be watered. A nurseryman now tells me that that plan is quite fallacious. On the contrary they should be watered like other plants, good pot room, well drained, and in the autumn should have their heads lopped off. I have given sand and peat soil; he adds loam and dung. Now, before changing soil, pots, &c., I should like very much either to have a confirmation of this plan, or a recommendation of any other known to succeed. If I mistake not, Cacti grow abundantly on the borders of the Nile; if so, the overflowings of that river must be a proof of their requiring much water.

J. G.

I wish particularly to know soon from some correspondent, whether in budding Camellias it is better to let the end of the scion remain in water or no; and whether either plan will succeed with greenhouse temperature; also whether the single red cuttings will strike in a greenhouse?

J. G.

ON RAISING TULIPS.—Will you, or some of your readers, be kind enough to give a few remarks on raising Seedling Tulips, and how long they are before they flower from seed? An early answer will oblige

Northampton, Sept. 21, 1840.

G. P.

[On receiving the above communication we were in company with Mr. Groom, of Walworth, who has raised numerous valuable seedlings: that gentleman most obligingly gave us his mode of raising seedlings.—Mr. Groom observed, that if the seed be sown early in autumn, the foliage becomes so far advanced before winter as generally to damp off; he therefore does not sow before the end of November, and he finds that the foliage then pushing forth continues to grow without any check till summer, and thus the bulbs attain a good size the first season. The seed is sown in a pot of rich sandy loam and peat, and is placed in a cool frame, taking care to keep the soil just moist. When the plants have completed their growth, he transplants them very carefully at a suitable distance apart. At the second time of planting out they are planted in the open bed, as done to established kinds. The period before blooming depends usually upon the treatment given; sometimes they bloom the fourth year, and break at the sixth or seventh.—We refer our correspondent to excellent articles on the Tulip in several numbers of the CABINET during the present year, viz., March, July, &c.—CONDUCTOR.]

ON A DEFECTIVE DAHLIA BLOOM.—In Dahlia shows, whether preference is given to a flower that is beginning to decay at the back, though good in every other respect, or one that is fresh, but has what is termed a hard eye. There seems to be some dispute down in the North relative to it: sometimes the parties judging decide one way, and sometimes the other.

Keswick.

A NORTH COUNTRYMAN.

[Certainly the preference should be given to the first-mentioned flower: it appears to have possessed every desirable property, only past its meridian; whilst the latter had a very glaring defect.—We have drawn up in part some regulations for Dahlia judging, which we shall finish soon, and give in an early number. The mode of procedure, we are persuaded, will, wherever attended to, lead to a proper decision as to the best flower, or stand of flowers; and thus, we trust, prevent disputings.—CONDUCTOR.]

ON ENGLISH IRISES.—I see a fine collection of English Irises, colours given, &c., are advertised in the October CABINET by Messrs. Lockhart, of Cheapside, London. I have never seen any of the kinds, and should be glad if the Conductor of the CABINET would give me his opinion of them, as to their merits.

Whitehaven, October 15, 1840.

G. B. WATSON.

[We have seen the collection grown in an open bed, and they were highly beautiful. We can strongly recommend them to our correspondent, as well deserving a place in every flower garden, their variety and beauty being very attractive. They grow about two feet high.—CONDUCTOR.]

ON HYACINTHS, &c.—In the last month's CABINET I observe the excellent catalogue of bulbs offered by Messrs. Lockhart. I am desirous of having a quantity to grow in the open bed, as well as two dozen for glasses. There are so many beautiful sorts described that I scarcely know which to select. So I may have real good double flowers in each class of colour. I am informed that Messrs. Lockhart grow them by acres near London, and far superior to any other collection in England: they have an opportunity of making a better selection in proportion. I should be much obliged if they would give me the names of twenty-four best for glasses, and fifty of the best for open bed culture. If not too much trouble to them, I should be glad if the list extended to one hundred kinds. I don't care about *newest sorts*, if not of superior quality. I wish to have the best propertied flowers. I will thank them to give it me for the next month's FLORICULTURAL CABINET, to afford me the opportunity of planting, &c. early in November.

Near Lincoln, Oct. 20th, 1840.

CLERICUS.

We have great pleasure in replying to the query of "Clericus," and at the

DOUBLE WHITE—*continued.*

La tour d'Auvergne
Madame de St. Simon
Miss Kitty
Ne plus ultra
Og Roi de Basan
Pyrene
Sceptre d'or
Sphera secundi
Sultan Achmet

We much regret that "Clericus" does not ask for a list of the best single Hyacinths. We, however, take the liberty to add the following, which we know are unrivalled, either for pots or glasses:—

SINGLE RED AND ROSE :

Charlotte Marianne
Drebits
Felicitas
La Dame du Lac
L'Ami du Cœur
Le franc de Berkley
Mars
Monsieur de Faesch
Princess Elizabeth
Queen Victoria
Temple of Apollo
Trinandra

SINGLE BLUE AND BLACK :

Appius
Baton Noir
Buonaparte
Grand Mogul
La grande Vedette
L'Ami du Cœur
Nimrod

DOUBLE WHITE—*continued.*

Violet superb

DOUBLE YELLOW :

Bouquet d'orange
Duc de Berri d'or
Heroine
Louis d'or
Pure d'or
Van Speyk.

SINGLE BLUE AND BLACK—*continued.*

Orondates
Pronkjuweel
Roi des Bleues
Tubalcaiu
Vulcan

SINGLE WHITE :

Belle Esdre
Duchess of Kent
Hercules
La Candeur
Madame de Talleyrand
Monarque du monde
Premier noble
Prince de Galitzin
Vainqueur
Voltaire

SINGLE YELLOW :

Lord Brougham
Prince d'Orange.

We have grown and forced the whole of the above, and have found them to be invariably of the best varieties.

156, Cheapside, 23d October, 1840.

THOS. CH. LOCKHART.

REMARK.

FUCHSIA CORYMBIFLORA.—This splendid plant is a native of Peru; was imported by John Standish, nurseryman, Bagshot, and has now flowered with him. This plant is the most noble of its tribe, both in beauty of foliage and magnificence of flower, that has yet been introduced into this country. It is much more hardy than fulgens, starting early to growth in the spring, without any excitement, growing well, turned out in the summer months, in the most exposed situation, and is now thriving with the greatest luxuriance in a cold frame. The foliage is about the size of fulgens, only thicker and of a very green colour. It throws out an immense raceme of flowers on a flower stalk quite out beyond the foliage, which, like fulgens, lengthens as it flowers, only being many more in number, it is longer than fulgens, and having several branching racemes on the same flower stalk, which hang down and cover the naked part where the first flowers drop. The main raceme and the branching racemes are produced so as to form a handsome corymbose head, and the whole when in full flower is two feet long. Each flower is rather longer than fulgens, the calyx of a deep red colour, and quite reflexed; the corolla is nearly one inch long, of a crimson scarlet, and expanding like the calyx of a common Fuschia, which makes it very conspicuous.

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.

Plants of the Calceolaria that have 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. Offsets will be found rooted, take them off and pot them.

Chinese Primroses that have been grown in the open borders will require to be taken up.

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 Dahlia seed, where 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. See articles on culture as to potting, burying under ground, &c.

Fuchsias and greenhouse plants intended to be inured to the open air will require to have protection at the roots, &c.

Tubers of Commelinas, 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.

 REFERENCE TO PLATE.

In recent numbers of the Cabinet we have remarked upon the Pelargoniums; we give figures of them in the plate of our present number. They are amongst the very best, and deserve to be in every collection.

Guardsmen we saw in fine bloom at Mr. Gaines's.

Bridesmaid equally so at Mr. Catleugh's.

Gem of the West we had sent from Mr. Nairn, Stoke, near Devonport.



1. *D. Cook's Pink*



2. *Miss Moleworth*

3. *Black Knight Heart*

THE
FLORICULTURAL CABINET,

DECEMBER 1st, 1840.

PART I.

ORIGINAL COMMUNICATIONS.

ARTICLE I.

ON PROPAGATING THE TREE PÆONY.

BY L.

IN the last number of your useful Cabinet, I observe an article on an easy and successful method of propagating the Tree Pæony, by a gentleman of Italy.

As I have been very successful in raising it from cuttings, in a somewhat different manner from the Italian gentleman, I take the liberty of sending you my mode of practice.

Having two very large plants in pots, that have been forced the last five years, and were become inconveniently tall, I, therefore, in February last, cut down and placed them in a forcing house. They soon sent out a great many shoots, but without blossom-buds. Having selected a few of the strongest to remain on the plants, I cut off all the others, when about two or three inches long, with a very small portion of the old bark to each; and, having some pots filled with a rich light soil, I inserted the cuttings without taking a leaf from them. After sprinkling them with water, I covered them with bell-glasses, and placed them in a shady part of the house. They were occasionally sprinkled over head afterwards, but water was more frequently poured on the glasses, which, running down the sides, moistened the soil without wetting the leaves.

I potted them off in July, and had the satisfaction to find that not a single cutting had failed. The pots were so filled with roots, that

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I had some difficulty in parting them. About the beginning of May they were turned out of doors, but the glasses kept over them.

In the same number of the Cabinet, I see a mode of propagating plants from single buds. I have reason to know that the last experiment of the late lamented T. A. Knight, Esq., was to ascertain if plants could be propagated from a single bud and leaf. His death unfortunately took place before the experiment was fully proved; but it has since been ascertained that they may be so raised, and even some kinds that do not easily strike in the usual way. If you think the process will be acceptable to your readers, I may make it the subject of another communication.

Ludlow, 27th Oct., 1840.

[We shall feel highly obliged by the favour of the article our correspondent refers to, at an early opportunity.—CONDUCTOR.]

ARTICLE II.

REMARKS ON NAMING NEWLY-DISCOVERED PLANTS, ETC.

BY B. S., NEWCASTLE, BALLYMAHON, IRELAND.

As the study of botany is so rapidly on the increase in Great Britain and Ireland, I am induced to call the attention of the numerous readers of the **FLORICULTURAL CABINET**, and especially those of them who are successful in introducing new kinds of plants, either by importation from other countries, or by hybridization in these, to the generally prevalent practice of naming new plants after individual persons or places. I consider the method of application usually adopted highly prejudicial to botanical arrangement; but still, I am not for doing away altogether with the name of a person or place affixed to a plant, as I think that object may be attained with, at the same time, a due attention to a systematic botanical nomenclature. Where and how I would admit it I shall now describe.

When a new genus is discovered, then it may be named consistently, either by a reference to its nature, habit, or in compliment to or commemoration of the person by whom discovered or introduced; but when a new species, then for it to have applied a

systematic botanical name, and not the name of a person or place, which can convey no idea of what the plant is: as, for example,—

The *Spirea rotundifolia* noticed in the FLORICULTURAL CABINET for October, a species which I never saw, yet, being well acquainted with the rest of the genus, I can form an idea of the plant; and if a person, through being wrong informed, should show me a plant of *Spirea lanceolata*, and say this is the *S. rotundifolia*, I would tell him at once that it was not, though I had never seen either. I would then show him that *rotundifolia* signified round-leaved, and that this was oblong, narrow, and tapering towards each end, and that the leaf was lanceolate, and not round; and that if this species was named after the leaf, it was *Spirea lanceolata*, and not *S. rotundifolia*.

I might show a thousand such instances; but to the point in hand. Suppose that *Spirea rotundifolia* had been named after the place from whence it was introduced into this country, viz. Cashmere, and called *Spirea Cashmerea*, and the *S. lanceolata* to be named *Spirea Hendersoni*, it would then have been impossible for me to distinguish one kind from the other by botanical knowledge; and then if, in purchasing my plants, they were wrong named, or by casualty the labels be lost, I should not know the true kinds. I have known many instances of this sort of confusion, one name being substituted for the other.

Some readers of the above remarks may conclude that I object entirely to any individual naming a plant after a person, except he introduced a new genus; and that to every variety of a species he might be successful in raising he must give a systematic name. I mean no such thing; I want to show the absurdity of naming species after *persons* or *places*. I would rather recommend the gardener that raised a variety to name it after his master or mistress, as a mark of respect, or after some distinguished botanist, promoter of the science of gardening, practical gardener, or even after himself.

It is probable that some persons, on reading the above, may object to my remarks, and say that a person may never be successful in introducing a new genus, or raising a variety worthy a name, but still might be fortunaté enough to introduce a new species; and, to pursue the method I have above recommended, he would be prevented from naming it after either person or place he might desire to

do. To such persons I would say, first name it after something remarkable in the plant, as in the radix, caudex, caulis, folium, corolla, or parts in the fructification, &c. This may be easily and significantly done, as there must, in every plant being a separate species, be some natural distinction from the others. In such a case, I think then, as an appendage, name it in honour of or compliment to the person or place desired; as, for instance,—*Ipomæa Horsfalliæ* might properly be denominated *Ipomæa speciosa Horsfalliæ*, which would immediately distinguish it from *Speciosissimus*, if there was one of that name.

Having used the terms genus, species, and varieties, it is possible that, in the very extensive circulation of the FLORICULTURAL CABINET, they may come under the notice of some persons unacquainted with their proper application; for the information of such, I would observe that, by a genus, is meant *the family*; by species, the members of that family; and by varieties, the kinds which are produced from the seed of species, and which are in some respects different by having sported into various stripes, &c., in either flower, leaves, &c., &c.

I shall refer to the subject again in another communication.

[We shall be glad of any further observations from our correspondent. We think there is a good deal of propriety in the views taken of the method regretted and objected to, and that generally it might be obviated; whilst at the same time, any desired commemoration of person or place might be attached to a systematic, distinctive, specific name. We do not approve of the application of the term which our correspondent has selected in order to illustrate his views, as the term *speciosa*, signifying showy, will apply to many of the genus *Ipomæa*; and unless it did exceed in that particular all others, with the exception of an *I. speciosior*, or an *I. speciosissimus*, it would not be properly applied; and a person not knowing it, receiving a plant, unless he well knew all the species in the genus, would be nearly as puzzled as if the name of a person or place had been given to it. Some systematic distinctive difference in the plant should be the distinguishing characteristic to name after.—CONDUCTOR.]

ARTICLE III.

ON THE CULTURE OF THE HEARTSEASE.

BY A VOTARY OF FLORA.

On the Preparation of the Soil for planting, &c.—In the properties of the heartsease a most extraordinary improvement has been effected during the last few years, and is still proceeding with such rapidity that vast numbers are annually discarded, and their places supplied with new and improved varieties; indeed, there is scarcely a show-flower now cultivated in first-rate collections which has not been produced from seed during the last three years. In connexion, however, with these facts, is another, with which every cultivator of the heartsease should be acquainted; viz., that in proportion to the rapidity with which the improvement has been effected, is the tendency to degenerate. This fact has so frequently presented itself to my observation, that I cannot doubt its correctness; and, for the purpose of rendering it evident to all concerned in the matter, I shall say a very few words on what are termed “florists’ flowers” in general, dividing them into two classes; placing in the first class those flowers which have been brought to their present state of perfection rapidly; and in the second class, those which have been improved slowly, and by almost imperceptible degrees. In the first class, then, we shall find the dahlia and the heartsease, both of which, it is well known, exhibit considerable tendency to degenerate. In the second class we find the pink, carnation, tulip, rose, &c., which show no such tendency, or, if at all, in a very trifling degree. Without, therefore, extending these observations further, we may fairly consider the above fact as established. But it may be asked, what has this to do with the subject of this article, viz., “the preparation of the soil for planting?” It has much to do with it; for it must be observed that, of all the above-named flowers, the heartsease, which has been improved the most rapidly, flourishes the least, or shows the greatest tendency to degenerate when planted in the common unprepared soil of the general flower-border. It is therefore evident that, as a stimulating system of cultivation has produced the present splendid varieties of the heartsease, and as, without that stimulation, they evince a considerable disposition to go back, the

natural inference is, that it is only by continually enriching the soil that they can be produced in the desired state of perfection. This is indeed the "secret," and in this consists the "art and mystery" of pansy culture. Having therefore considered these points, we shall be enabled to judge, "with understanding," on the immediate subject of this paper, and on which the following remarks, founded on experience, are offered:—

Having fixed upon a suitable situation (which, if possible, should be open to the sun until the middle of the day only), mark out a bed three or four feet wide, allowing one foot to each row of plants. Throw out the soil to the depth of eight inches; and, after having well loosened the bottom, put in a layer, at least two inches thick, of fresh,* strong, stable manure, as free from straw as possible; and, before replacing the soil taken out, mix with it a portion of horn-dust and shavings (one-half of each), in the proportion of at least a quarter of a peck to every moderate-sized barrowful of mould, which, if very adhesive, should be lightened by the addition of a little white river or sharp pit sand,—red sand generally contains oxide of iron, which is injurious to vegetation. Having well pulverised the soil thus prepared, fill up the bed to the height of six inches above the manure, slightly covering the whole with fine rich mould, taking care that the bed so filled up shall be at least three inches above the paths. Rake the surface smooth and even, and prepare for planting. Where a choice of plants can be had, preference should be given to well-rooted cuttings, choosing those with thin, smooth, solid, green or light-coloured stems, as those with thick, yellow, ribbed stems are much less likely to endure through the winter, or to grow freely in the spring. If the bed is three feet wide, plant one row down the centre, ten inches apart, and another row on each side, six inches from the edge. The roots should not be more than three inches

* By *fresh* manure is meant such as has not lain sufficiently long together to have undergone fermentation, by which process a considerable quantity of carbonic acid gas (which enters largely into the composition of plants) is disengaged and driven off, and the quality of the manure thereby deteriorated. The application of horn-dust to the soil is beneficial, not only on account of its strong stimulating qualities, but also from its particles undergoing considerable expansion during decomposition, by which the soil is kept light and airy, forming a kind of drainage during the wet season, and facilitating the extension of the young roots.

deep in the ground: if the plants are too long to admit of this, place them aslant, so that the roots may be at the required depth.

If the bed be much exposed to the north or north-east, I would advise that a moderate-sized garden-pot be turned over each plant during severe weather, frequently uncovering them during the day. I have found this plan of essential service, especially when the cold easterly winds prevail in the early part of the spring, or during the heavy rains which frequently fall towards the end of February. The pots should never be removed, after a frosty night, while the sun shines. Many thousands of valuable heartsease, which stood uninjured through the winter, were lost in March last, in consequence of the frosty nights being succeeded by hot sunny days. If the plants had been shaded from the sun, they would have been saved.

Cuttings of choice kinds may yet be taken, and planted an inch and a half apart, in pots or boxes filled with equal parts of light garden mould and sharp sand, and placed in a cold frame; the plants will be ready for succession-beds in the spring.

The following list contains fifty of the best varieties in cultivation:—

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|-----------------------------|--------------------------------------|
| 1. Amadis. | 26. Jewess (Lidguard). |
| 2. Bathonia. | 27. Jehu (Thompson). |
| 3. Britannia (Thompson). | 28. Joan of Arc (Cook). |
| 4. Blandina (ditto). | 29. Lady Fuller. |
| 5. Beauty (Brown). | 30. Lictor. |
| 6. Beauty of Hitchin. | 31. Launcelot (Stubbs). |
| 7. Curion. | 32. Lady Sarah Ingestre (ditto). |
| 8. Coronation (Lovegrove). | 33. Lutea Sulphurea (ditto). |
| 9. Coronation (Thompson). | 34. Lalla Rookh (Earl). |
| 10. Conqueror (ditto). | 35. Medora (ditto). |
| 11. Conductor (ditto). | 36. Model of Perfection. |
| 12. Cream (ditto). | 37. Miss Gray (Cook). |
| 13. Captain Cook. | 38. Miss Stainforth. |
| 14. Camella. | 39. Marchioness of Lothian (Stubbs). |
| 15. Diadem (Thompson). | 40. Olympia. |
| 16. Doctor Johnson. | 41. Perfection (Bennett). |
| 17. Diogenes. | 42. Robin Adair. |
| 18. Dowager Queen (Holmes). | 43. Reliance Superb. |
| 19. Eclipse (Thompson). | 44. Rival Duke (Lake). |
| 20. Earl of Clarendon. | 45. Rosa (Cook). |
| 21. Elvira. | 46. Rival Yellow (Stubbs). |
| 22. Giant's Bride (Mellon). | 47. St. Paul's (Cook). |
| 23. Grand Duke (Thompson). | 48. Triumph (ditto). |
| 24. Hampden (Cook). | 49. Vivid (Thompson). |
| 25. Julius (Brown). | 50. Yellow Defiance (Sharp). |

ARTICLE IV.

ON AN EASY MODE OF FUMIGATING A GREENHOUSE, PIT, ETC.

BY A CONSTANT READER AND SUBSCRIBER.

IF you think the following worth inserting in the *CABINET*, you are at liberty to do so.

Not having a house, I am obliged to winter my plants in a cold pit, which I have found a difficulty in fumigating until I thought of the following plan:—Take a piece of touchpaper, and lay on it a thin layer of tobacco; then roll it up, and tie loosely. Light one end, and place it in a flower-pan in the house or pit. I think half an ounce, used in this way, is equal to an ounce with the bellows; and it is not a tithe the trouble, as it does not require any attention after lighted.

Winchester, 2nd Nov., 1840.

ARTICLE V.

ON THE CULTURE AND MANAGEMENT OF THE CAMELLIA.

BY A NORTH BRITON.

THIS very popular family has always the best effect when cultivated in a house by themselves; and as there are certain seasons in which this genus requires a treatment almost peculiar to itself, their separate culture is therefore the more necessary. The most successful and generally-adopted method of propagating this family is by inarching or grafting. By either of these means each variety is perpetuated; but new varieties are only to be obtained from seeds, and as these seldom ripen, at least in any quantity, in this country, and few are imported in a fit state to vegetate, the propagation of new varieties is consequently a matter of some importance; as in most other cases it is from single flowering plants that seeds are to be expected, although sometimes the semi-double flowers also produce them, and of these the common single red is the most prolific in affording seed. Sometimes seedlings so obtained are used only for stocks, whereon to work other rather kinds, although sometimes they are kept till they attain a flowering state to ascertain their relative

merits. Stocks, however, are, for the most part, obtained by nurserymen from layers of the common single red, which they have often planted out in pits for this purpose, or from plants originated from cuttings of the same or equally common sorts. Camellias are sometimes budded, but for the most part are either grafted or inarched, and in either case the process of tonguing is dispensed with as weakening the stock; and that mode of grafting termed side-grafting is preferred. It may be observed, that of all the stocks, for this or any other purpose, those obtained from seeds are the best.

As to the proper season for grafting or inarching camellias, the spring is the best, and just at that time when the plants have done flowering and are beginning to grow. This state of vegetation does not always take place at precisely the same time, as some cultivators force their camellias into bloom very early; such, therefore, should be operated upon not by the exact period of the year, but by the state of the plants. Some will be fit for this process in January, February, March, and April: those, however, which are operated on in March and April will have the better chance to succeed, although those which are operated on in February answer pretty well.

GRAFTING.—Side-grafting (as before mentioned) resembles whip or tongue-grafting, but differs in being performed on the side of the stock without being headed down. Having fixed on those branches where shoots are wanted to furnish the head or any part of the plant, then slope off the bark and a little of the wood, and cut the lower ends of the scions to fit the part as near as possible; then pin them to the branch, and secure them with bass, and clay them over as any other sort of grafting.

INARCHING, OR GRAFTING BY APPROACH.—Perform this any time from the beginning of February to the end of March; fix the pot containing the stock securely, then cut with a sharp knife a thin piece from the side, about two inches long; make a small notch downwards, at the top of this, then prepare the branch to be inarched after the same manner, but make the slit upwards. Fit the tongue of this branch into the notch of the stock, join the rind of one to that of the other, tie them well together with matting, rub on a little clay to keep out the air, and they will be united in a month or six weeks; when joined, loosen the bandages, but do not remove them until some time after the scions are separated from the parent plant.

By LAYERS.—A branch of one-year old wood may be laid in a pot, or otherwise, as most convenient, any time from the middle of August until the beginning of March. With a sharp knife make an incision half way through the wood, and half an inch long on the under side of the branch, just below a good bud; slightly twist the branch so as to lodge the tongue or cut-part on the soil, peg it down, and cover it with mould.

By CUTTINGS.—Double varieties strike by cuttings equally as well as single ones, but several of the choice kinds do not make such fine shoots as the single ones. In August cut off the young ripe wood four joints long, just below a bud; take off the lower leaves from each cutting, and insert the cuttings in a pot of finely-sifted leaf mould and heath mould well mixed (this is preferable to sand), fit a glass over them, and plunge them immediately in a tan bed; if this is not convenient, place them for a month in a shady part of the greenhouse, and afterward plunge them in a hotbed of dung, and in a month or six weeks they will have struck root.

By SEEDS.—Seeds should be sown as soon as ripe. Plunge the pot in heat, and the seeds will vegetate in a month or two; but if the seeds are kept long, they seldom vegetate in less than a year.

SOIL.—The best soil for camellias is one part heath mould, one part well-sifted leaf mould, and two parts brown loam from a pasture; if leaf mould cannot be had, use very rotten dung, and mix a small portion; break the loam and heath mould fine in preference to sifting it.

POTTING.—Always make it a rule to pot each plant immediately after it has done flowering, and before it begins to grow. If the roots are not matted, merely turn out the plants and replace them in larger pots; but if matted, break the mass of roots carefully with the hand, and never follow the destructive practice of paring with a knife; lay plenty of potsherd at the bottom of the pots, and with a flat stick work the soil round the sides of the ball.

HEAT.—Place the plants, when potted, in a heat not exceeding 75 degrees by day and 60 by night, until they have formed their young shoots; then immediately increase the temperature 10 degrees, to assist in perfecting their flower buds, which will occupy about a month; afterwards expose them gradually to the air, and lower the temperature, to prepare them for their summer treatment: *i. e.*, any

time from the beginning to the end of June, place the plants out of doors, either under a north wall, or other shelter, where they will get no sun except in the morning and evening, and where they are well sheltered from the wind; the increase of heat mentioned above to be given whilst the shoots are young and tender ensures abundance of blossom buds.

WATERING.—When the plants are potted, and during the whole time they are subjected to a high temperature, syringe or sprinkle, with a rose watering pot, over the leaves every morning or evening in fine weather, and give a plentiful supply of water at the roots.

SHADING.—From the middle of March to the end of September camellias are unable to endure a full exposure to the mid-day rays of the sun, which invariably cause the leaves to blotch and become yellow; always, therefore, throw a net or other slight shade over the glass in sunny weather, from 10 till 3 or 4 o'clock.

WORMS.—Whilst the plants are out of doors, worms will occasionally effect an entrance into the pots, unless the pots are placed on a prepared floor, or piece of slate be put under each; to effectually prevent damage, water with clear lime water at the roots.

HOUSING.—In the first week in October take the plants into the greenhouse, or other cool place. As you wish them to come into flower, remove successively into temperature of 60 or 65 degrees. When the buds are near expanding, keep the heat regular, or the buds will fall without opening; when expanded, remove to any light, cool place, and the flowers will continue a long time.

INSECTS.—The only insects infesting the camellia are the thrips (*Thrips physapus*), the chermes (*Psylla cratægi*), the brown scale (*Coccus Hesperidum*), and the aphid (*Aphis vitis*); also, if the plants are kept in a hot and humid atmosphere during their season of torpidity they are liable to the mildew. The thrips and chermes disfigure the plants by destroying the cuticle of the leaves, causing a spotting not unlike that produced by the red spider (*Acarus telarius*); and the coccus and aphid check the growth by pumping up the juices, and thus cause the extremities of the shoots to become stunted and diseased; and the mildew, by spreading over the leaves, stops up the pores and prevents a free circulation of the juices.

THE FOLLOWING SELECTION INCLUDES MOST OF THE FINEST IN
CULTIVATION.

1. DOUBLE WHITE (*C. Jap. alba plena.*)—A. well-known and lovely variety, growing to the height of 12 or 14 feet, very hardy, and a remarkably free flowerer.

2. DR. SIEBOLD'S WHITE (*C. Sieboldi.*) Syn. *candidissima.*—Flowers with a tinge of yellow when first opening, but afterwards becoming pure white; liable to fall before having fully expanded if placed in too strong a temperature; flowers measuring nearly four inches when fully expanded.

3. MR. WADIE'S WHITE (*C. Wadieana.*)—Bluish paper white, petals irregular, measuring, when expanded, three and a half inches.

4. FRINGED PETALLED WHITE (*C. fimbriata.*)—Delicate white, more irregular in the disposition of its petals than the old double white, and the petals notched or fringed on the upper edge.

5. WELLBANK'S WHITE (*C. Welbankii.*) Syn. *flavescens.*—The flowers of this variety have a yellow tinge, are remarkably handsome, measuring from three to four inches diameter when expanded; the plant is a free grower and flowers abundantly.

6. WHITE ANEMONE FLOWERED (*C. anemone flora alba.*)—This is a lovely variety, sometimes becoming spotted or striped, but generally retaining its character as a white camellia.

7. SEMI-DOUBLE WHITE (*C. semi-duplex alba.*)—This, although not perfectly double, is scarcely surpassed by any of those before it; the flower is large, usually expanding upwards of four inches, of a remarkably pure white, and almost semi-transparent.

8. DONKLAER'S STRIPED (*C. Donklaerii.*)—The flowers of this variety expand about three inches, are very double, of a delicate white, beautifully marked with zigzag crimson lines, occasionally deeply blotched with the same colour; the petals are irregular.

9. VARIEGATED FLOWERED (*C. variegata.*)—This is a very common variety, but is, notwithstanding, deservedly popular; the flowers are large red, blotched with white, and very conspicuous.

10. CHANDLER'S STRIPED WARRATAH (*C. Chandlerii.*) Syn. *versicolor.*—The flowers of this are red, striped and blotched with white.

11. POMPONE (*C. Pomponia.*) Syn. *Kew blush.*—Flowers white,

tinged with blush at the base, and red stripe up the centre of each petal; the flowers, when expanded, measure from three and a half to four inches across.

12. PRESSES ECLIPSE (*C. Eclipsis*).—Flowers white, beautifully striped and feathered with pale crimson; petals remarkably regular and very delicate.

13. THE SHOWY (*C. speciosa*.) Syn. Rawèsiana.—Flowers deep red, striped with white; when expanded measures nearly four inches.

14. THE GERMAN ROSE (*C. Francfurtensis*).—This is a new variety; the flowers are large, sometimes nearly six inches in diameter; the petals are light rose, striped and blotched with dark crimson.

15. PARKS'S STRIPED ROSE (*C. Parksii*).—The ground-colour of the flowers is a delicate rose, with here and there blotches and stripes of white.

16. GRAY'S INVINCIBLE (*C. punctata*.) Syn. dotted white.—Flowers very pale red, nearly white, striped with deep red, like a carnation.

17. LADY WILTON'S (*C. Wiltoni*).—Flowers blush, striped and dotted with a darker colour.

18. THE ROSE OF THE WORLD (*C. rosa mundi*).—The flowers of this have a white ground, spotted and striped with crimson.

19. SWEET'S PAINTED LADY (*C. Sweetiana*).—This, with the exception of the Donklaeri, is perhaps the finest variegated variety we have in our collections; the flowers are large, very double, and the white, dark red, and light red, are so beautifully mixed, as to give the plant, when in flower, a very lively and elegant appearance.

20. MISS THOMPSON'S (*C. Susanna*).—This is something like the painted lady, but rather inferior to it; the stripes are faint, and the contrast, on the white ground, is not so conspicuous.

21. COLVILL'S (*C. Colvillii*).—This is another bearing a great resemblance to the painted lady; the petals are beautifully striped with red, almost like a carnation.

22. MARTHA (*C. Martha*).—The colour of this flower is pale blush, striped with darker colour.

23. FLESH COLOURED (*C. incarnata*.) Syn. Lady Hume's blush.—The petals of this variety are a rich and delicate rose colour.

24. CHINESE ROSE (*C. rosa Sinensis*).—Flowers nearly four

inches in diameter; pale red, with dark purplish veins; a very free flowerer, and well deserving cultivation.

25. CHANDLER'S ELEGANT (*C. elegans*).—Flowers much like the last in colour, but scarcely so large; form of the flowers like the anemone flora.

26. MIDDLEMIST'S ROSE (*C. carnea*.) Syn. flesh-coloured, rose-coloured.—This is not very double, but a beautiful kind; the veins on the petals purple.

27. KENT'S THICK NERVED (*C. crassinervis*.) Syn. hexangularis.—Flowers the same shape as anemone flora, but the colour paler, and in other respects very distinct.

28. CORAL FLOWERED (*C. corallina*.)—This is another anemone flowered, with petals semi-transparent and very beautiful.

29. WOOD'S (*C. Woodsii*.)—Flowers large, nearly four inches broad, but not very double.

30. ROSY (*C. rosea*.)—Flowers measuring upwards of three inches broad, very handsome.

31. DARK RED (*C. atrorubens*.) Syn. Loddiges' red.—A beautiful variety, flowers deep scarlet.

32. OLD DOUBLE RED (*C. rubro-plena*.) Syn. Greville's red.—Flowers crimson; this is a well-known variety, but has of late become somewhat scarce in collections, probably from its not flowering so freely as some of the other kinds. To make it produce flowers, cripple it at the roots with a small pot, give it plenty of heat at the season of forming buds, and as soon as these are fully formed, place it entire in rather a larger pot, and in general it will flower freely.

33. CRIMSON SHELL (*C. imbricata*.)—This has been reputed as the finest variety in cultivation, although we can scarcely assent to this, yet it is without doubt a lovely kind; the colour is a rich carmine, very conspicuous amongst the green leaves.

34. HOLLYHOCK FLOWERED (*C. althea flora*.)—Flowers not so deep coloured as the three preceding, but is a good variety.

35. ANEMONE FLOWERED (*C. anemone flora*.) Syn. warratah.—This is a well-known old, but very excellent variety; it is a very free flowerer, of a deep crimson red, and remarkably showy.

36. THE CHOICE (*C. eximia*.)—Flowers are large, but paler coloured than the anemone flowered.

37. CLUSTER FLOWERED (*C. florida*.)—Flowers upwards of three inches across, fine dark rose-coloured, resembling the warratah.

38. ALLNUT'S SPLENDID (*C. splendens*.) Syn. *coccinea*.—Flowers remarkably profuse, brilliant scarlet, very showy, one of the very best kinds.

39. CARNATION WARRATAH (*C. insignis*.) Syn. the remarkable, Chandler's splendid.—Flowers large and conspicuous, of a fine deep rosy red.

40. KNIGHT'S (*C. Knightii*.)—A very fine kind, but the flowers not so large as some of the forementioned.

41. ROSS'S (*C. Rossi*.) Syn. *gloriosa*.—Flowers dark red, measuring nearly four inches broad; a fine variety.

42. EXPANDED FLOWERED (*C. expansa*.)—Flowers dark red, very showy, and produced in abundance.

43. AUCUBA LEAVED (*C. aucubæ folia*.)—Flowers much like the last, but the appearance of the plant is very different.

44. THE NEAT (*C. concinna*.)—Flower deep rose colour; not so showy as some of the others, but a kind well deserving extensive cultivation.

45. RED PEONY FLOWERED (*C. Pœonia flora*.)—Is a free flowering variety common in most collections.

ARTICLE VI.

ON THE CULTIVATION OF THE HYACINTH.

BY AN EXTENSIVE GROWER IN PARIS.

THE double-flowered hyacinth has generally had the preference of single kinds by the florist growers; but, though such is the case, there are some of the latter which are in very high repute in this country.

I grow upwards of one hundred kinds of the single flowering, which are truly beautiful; the colours are uniform, deep, and rich; and the kinds selected are of vigorous growth, most of them having spikes of bloom a foot long. The most beautiful of the collection is the imperial purple; it was raised at Haarlem. All the single ones I have flower equally well, whether grown in the open bed, in pots, or bloomed in glasses.

I was glad to observe, in the November CABINET, that Messrs. Lockharts recommend the growing of single-flowering kinds; they most assuredly merit every attention.

In the open-bed culture, the following is the mode of treatment I pursue with both single and double kinds, and which succeed to admiration:—

The bed is prepared as for the tulip. The surface is raised near a foot above the level of the surrounding ground, and an edging of green turf supports the sides.

The compost is composed of one-third of fine river sand, one-third of virgin earth, and one-third of manure or leaf soil (well decomposed), all well mixed together.

In the bed the bulbs are planted in fives, arranged like the spots of a playing card. These, too, are placed in regular lines: due attention, too, is paid to an arrangement in contrasting and harmonising the colours.

The period at which I plant is the first fortnight of October, as weather permits. The bulbs are placed six inches deep, after being covered over by the compost. I lay over the bed two inches deep of well-rotted manure. As soon as frost sets in, the bed is covered four inches deep with leaves or dry litter, and a slight sprinkling of earth is spread over it to prevent its being blown away. At the return of spring the entire covering is removed, and the spaces between the plants are carefully lightened up, and about two inches deep of fresh mould is spread over the whole.

Early in April the plants bloom; and, in order to prolong the period of beauty, canvass coverings are used to prevent injury from the sun or rain; but which, being fixed on rollers, are easily removed at pleasure; so that all the air, when not sun or rain, can be admitted.

When the bloom is over, all the flower-stems are cut off except those that are desired to retain for seed. The time of gathering the seed is when it is black and ready to escape the ovaries.

When the leaves are dry and yellow, the bulbs are taken up and placed carefully by, and covered with a layer of dry sand, about two inches deep. In this position they are allowed to dry for about three weeks; this prevents them shrivelling up. They are then placed on shelves, in some dry and airy place. When quite dry,

they are cleaned, the suckers taken off, and they are stowed in the drawers prepared for their reception in the seed-room.

The suckers are stowed, planted, and treated in every other respect as the parent bulbs. They do not usually bear flowers till the fourth year.

When the suckers are too much confined in the scales of the parent bulb, they often fail, and cause the decay of the entire bulb. To prevent this, an incision is made around it, just deep enough to prevent injury to the centre, but as far as to cut through the coat inclosing the bulb. This facilitates the formation of the suckers, and increases the size. Seed is sown in September, under a glass frame, and is covered with fine soil, two inches deep. In spring the glass is taken off, guarding only against a return of sudden frost. Seed sown in pots, and placed for winter protection, is equally successful, only they require transplanting; but those sown on a bed in a glass frame do not require it the first season, and the bulbs become finer than if checked by transplanting. The bulbs are each following year allowed more space in the bed. Sometimes at the fourth year a few will bloom, but at the fifth the bulb is in full blooming vigour, if treated properly before. It is at this age the Dutch send out their bulbs. Previously to being named, they give them the appellation of "Conquests."

When cultivated in pots, they are planted at the same time, and in the same kind of compost. After planting, they are plunged up to the rim in a south-aspected border. As winter approaches they are covered half a yard deep with rotten leaves. This not only protects, but causes the bulb to push forth early, and is a most essential attention to success. As desired, a few at a time are taken in to force, placed in frames or other similar convenience. When the shoots have pushed up into the leaf, covering about three inches, one foot deep of it is taken off. This prevents them pushing up too weakly or unseemly long; but enough is left to protect from injury by any frost. When the pots are placed in a room, they are put as near the light as possible.

When grown in glasses, a small portion of salt or saltpetre is put into the water. They are kept in the dark till they have pushed about three inches, when they are removed to a light situation, in or near a window.

Paris, 7th Nov., 1840.

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ARTICLE VII.

HINTS ON THE CULTURE OF THE CALLA ÆTHIOPICA.

BY T. W., WALTON NURSERY, LIVERPOOL.

PERHAPS the following hints on the culture of the *Calla Æthiopica* may be interesting to the admirers of that interesting and, I am sorry to say, too much neglected flower.

It is generally known that the *Calla (Richardi) Æthiopica* thrives best when treated as an aquatic; and that, when planted on the margins of ponds or other ornamental pieces of water, it is hardy enough to endure the severity of our winters. Though it will not bloom so finely, or flourish with the luxuriance, when treated in this manner, as with the ordinary culture, however, the noble appearance of the plant, mingled with the *Nymphæa*, *Nuphar*, &c., is peculiarly striking and beautiful.

But, as every flower-garden has not the appendage of a piece of water, persons are induced to cultivate this beautiful flower in pans, troughs, &c., with the plants growing in pots plunged or placed in water. This mode of treatment shows too much art, and often has a very slovenly appearance. To obviate this, I adopt the following plan:—Having a large stock of fine plants, I removed the earth from a large oval-formed clump, to the depth of eighteen inches below the surface. I then had a water-tight vessel made of the same size and depth of the bed. I gave this vessel a good coat of pitch, to prevent its rotting. In the bottom of it I placed about six or eight inches of fine gravel: this is placed principally in the middle, and brought down to nothing at the sides. Its object is to raise the plants high in the centre, should they chance to be of the same height. Having placed the pots (which should be of one size) in a regular manner, the tallest of course in the centre, I fill the vessel with water. Around the edge of the vessel I drive round-headed nails, about three or four inches asunder. From these nails I then stretch some fine pliable wire, lengthways; other pieces are stretched crossways; so that the whole resembles a net. With the plants growing through the meshes, on this wire I place a quantity of clean fresh moss, working it tight into the meshes of the wire, and close to the stems of the plants, keeping it pretty high in the centre to preserve the convexity

of the bed. By this treatment all clumsiness is avoided, and the vessel, water, and pots are totally concealed. The moss, lying so near the water, is, with an occasional sprinkling on the surface, kept always fresh and green; whilst its porosity admitting air and heat, the temperature of the water is considerably heightened. Nothing more noble than a mass of plants thus treated can be well imagined; the vivid green of the broad, ample, leathery-looking leaves, contrasted with the large, showy, white flowers, forms at once an object both beautiful, imposing, and magnificent.

To prevent the unseemly appearance of the pit, after the plants are taken to their winter quarters, I place a quantity of evergreen flowering shrubs, in tubs or large pots, in their place for the winter, filling the interstices with moss, in a neat manner.

I have several other articles in hand, which I had intended sending with this; but having, through my desire to be as explicit as possible, made this article more lengthy than I at first intended, I have reserved them for some future opportunity.

[We thank our respected correspondent for his many very useful and interesting communications sent us already, and shall feel highly obliged by the other promised favours.—CONDUCTOR.]

ARTICLE VIII.

REMARKS ON THE CARNATION POPPY.

BY MARIA.

BEING in the neighbourhood of Boston, in Lincolnshire, during the past summer, I was much pleased with a bed of beautiful carnation poppies. The bed was on a lawn, round, and about twelve feet across. It was raised to the centre; and the culture of the plants was so managed, that near the side they were in profuse bloom, and only about half a yard high. On inquiry, I found it was effected by the following treatment:—The bed was enriched with vegetable mould at the centre, and gradually allowed to be less enriched to the side, a foot of which at that place was a very poor gravelly soil. The bed being a foot lower at the side than the grass, the flowers were about six inches above; and the growth being regulated as above

described, the flowers formed a cone of most striking beauty. The admirable silky delicacy of the petals, their beautiful and varied colours, of scarlet, rose, pink, white, lilac, purple, striped, mulberry, black, &c., gave it a most enchanting effect. So highly did the object gratify me, that I presumed to apply for a portion of the seed, though an entire stranger at the place; a promise of which I had given me, and which now has been realised. When I have had an opportunity of growing them, I shall be glad to send a quantity (as they produce seed in such quantities) to the Conductor of the CABINET, for those readers of the work who may desire to have a portion. The same kind of poppy can be had of the florist seedsman, at Messrs. Lockharts, of London, and others, but not perhaps in such a beautiful variety. Those I saw blooming had been raised from selections made during several years: they certainly exceeded all I ever saw before. It is certainly worth while to procure some of the seeds, being so very cheap, and adopting the plan I saw, and strongly recommend to the readers of the CABINET. :

Chelmsford, 9th Nov., 1840.

The situation selected was a sheltered one from mid-day sun and west winds, which afforded a protection to the delicate petals, which are liable to injury by their strong operations upon them.

ARTICLE IX.

ON THE CULTURE OF PELARGONIUMS.

BY MR. COCK, OF CHISWICK.

NOTICING several queries and remarks in the FLORICULTURAL CABINET, on my plants exhibited at the exhibitions in the gardens of the London Horticultural Society, of the mode of treatment pursued in the culture of this most deservedly admired flower, I most cheerfully forward for insertion the following detail of practice, which it will be observed is the same in principle as is given in the November number by a "Foreman of a London Nursery."

In the FLORICULTURAL CABINET for September, page 201, I observe that a mistake has been made relative to the plant referred to, and which was exhibited by me at the London Horticultural Society's

Show, on June 13th. The kind, it is stated, was "Joan of Arc;" it was not, but "Florence." At the time it was exhibited it was twenty months old. It was cut down the latter end of August, 1839, being then in a forty-eight sized pot, potted at the middle of September, and re-potted in November. The other kinds I exhibited [all of them of magnificent growth, CONDUCTOR] varied in age, being from one to two years.

My usual mode of culture is to put off the cuttings in June, and as soon as they have struck root to pot them singly, each into a sixty sized pot. Having done this, I have them put in a shady situation, where they remain for three weeks, at which time I stop them and have them removed to a warmer and full exposed situation, as by that time they will bear it without injury, and it conduces to a better and quicker reestablishment.

In September I re-pot them into forty-eight sized pots, and in March into twenty-fours or sixteens, according to the size of the plants.

In these pots I let them remain for blooming. The plants have usually done blooming by August; I then cut them down, and re-pot as described in the previous routine of treatment.

Where a superabundance of lateral shoots are produced, they are thinned, so as to leave only a requisite proportion.

PART II.

LIST OF NEW AND RARE PLANTS.

IN PERIODICALS.

BARRINGTONIA RACEMOSA.—Raceme flowered. (Bot. Mag. 3831.) *Barringtonia*. Icosandria Monogynia. (Syn. *Eugenia racemosa*.) A native of the East Indies. A plant has bloomed in the stove in the collection of C. Horsfall, Esq., Liverpool. The plant was one foot high when received by Mr. Horsfall, three years back, but is now eight. It grows erect, simple, and at the extremity threw out a flowering raceme near two feet and a half long. The petals are yellowish, but the filaments, being red and long, are showy. The leaves have a very noble appearance, being about fifteen inches long and five broad. The plant, since producing a flowering raceme, has pushed lateral branches; and should it have a similar raceme at the extremity of each, it will make a very splendid appearance. *Barringtonia*, in compliment to Hon. Danes Barrington.

CALECTASIA CYANEA.—Bright Blue-flowered. (Bot. Mag. 3834.) *Juncææ*. Hexandria Monogynia. A native of Australia, and a most beautiful flowering plant, well deserving a place in every greenhouse. It is somewhat of a shrubby character, growing about a foot high. The flowers are produced at the ends of

the branches, of a bright violet-blue, with striking orange-coloured antlers. Each flower is rather more than an inch across. The plant is literally covered with a profusion of its lovely blossoms. The flowers, when dried, is of that character usually termed *everlasting*. In its native country it grows in sandy soil among shrubs.

CATASETUM MACULATUM.—Spotted Feelerbloom. (Bot. Reg. 62.) Orchidaceæ. Gynandria Monandria. Very like the *C. tridentatum*, differing in the helmet-shaped lip, having its lower edges brought together so as to press the column, which, in the last-named species, is wide apart. We further noticed the present species in the October Cabinet, referring to the figure given by Dr. Hooker, in Bot. Mag. for September.

CYRTOCHILUM MACULATUM, var. Ecornutum.—Spotted, hornless, var. (Bot. Mag. 3836.) Orchidaceæ. Gynandria Monandria. A native of Mexico, from whence it was sent by John Parkinson, Esq. It has bloomed in the collection at Woburn. The scape rises about a foot high, and bears a raceme of from six to nine flowers. Petals and sepals of a yellowish green, marked with deep purple blotches. Lip of a sulphur-yellow, having a red margin at each side of the base. The disk at the base bearing four plates edged with brown.

DELPHINIUM DECORUM.—Pretty Larkspur. (Bot. Reg. 64.) Ranunculaceæ. Polyandria Tri. Pentagynia. A native of New California, which had been raised by Mr. Cameron, in the Birmingham Botanic Garden, where it bloomed the last summer. It is a hardy perennial. The flowers, when first expanding, are of a bluish-violet colour, but afterwards change to rosy violet-purple.

ELÆODENDRON CAPENSE.—The Cape. (Bot. Mag. 3835.) Celastrinæ. Tetrandria Monogynia. Seeds of it were sent from the Cape of Good Hope to the Edinburgh Botanic Garden. It is a tree growing six yards high. The leaves are about two inches and a half long and one and a quarter broad, serrated, of a dark green above and paler beneath. It is a handsome *evergreen*, well worthy a place in the shrubbery. The flowers are green, not quite a quarter of an inch across, produced in corymbs from the axils of the leaves, three flowers on each branch of the corymb. Dr. Hooker remarks that the plant generally grown by the name *Elæodendron capense* is only a narrow-leaved variety of the common bay.

MONACANTHUS BUSHNANI.—Mr. Bushnan's Monk Flower. (Bot. Mag. 3832.) Orchidææ. Gynandria Monandria. (Syn. *M. discolor*.) It has bloomed in the collection in the Glasgow Botanic Garden. The flowers are of a deep yellowish green, with the inside and apex of the lip of deep golden-brown colours. *Monacanthus*, from *Monachos*, a monk, and *Anthos*, a flower. Alluding to the labellum in some being like a monk's cowl.

ODONTOGLOSSUM BICTONIENSE.—The Bicton Tooth-tongue. (Bot. Reg. 66.) Orchidææ. Gynandria Monandria. (Syn. *Zygopetalum Africanum*.) Mr. Skinner sent it to Mr. Bateman from Guatemala. It was sent too, at the same time, to Sir Charles Lemon, and to Lord Rolle, at Bicton, where it bloomed the first. The flowers are produced on a simple raceme, having about ten on each. Petals and sepals of a greenish-yellow, blotched with brown. Labellum, claw yellow, with the large heart-shaped lip of a pretty rosy lilac. Each flower is upwards of an inch and a half across. The same kind of treatment to this plant is required as is requisite to the thin-leaved *Oncidiums*. It will grow well in a pot placed with its roots just on the top of the soil, but is best when hung up. In either way it requires a great deal of moisture from syringing, &c., in the growing season.

PERNETTYA ANGUSTIFOLIA.—Narrow-leaved. (Bot. Reg. 63.) Ericaceæ. Arbuteæ. Decandria Monogynia. A stiff, erect-growing, evergreen shrub, quite hardy, said to be a native of Valdivia. It is of a dwarfish habit, very branching, having a small foliage, each leaf being about three quarters of an inch long, rather narrow in proportion, notched. The flowers are white, small, in form like the white variety of *Menziezia*, or Irish heath. The flowers are produced axillary, and so numerous along the branches, as to have nearly one from the

axil of every leaf. It is a very interesting and pretty plant, requiring care to keep it during the heat of summer, particularly if it be grown where the mid-day rays of the sun fall upon it. It requires to be grown in a peat border, partially shaded, and the surface of the bed to be covered with moss during summer, which must be removed in autumn. If the plants be watered in dry weather, Dr. Lindley states it is almost certain to kill them.

PIMELEA NANA.—Dwarf. (Bot. Mag. 3833.) Thymeleæ. Diandria Monogynia. A native of the Swan River colony, which was sent from Mr. Low, of the Clapton Nursery, to the Edinburgh Botanic Garden, where it bloomed abundantly in the greenhouse, from April to June. The plant grows about nine inches high, erect. Leaves glaucous, hairy. The flowers are produced in terminal heads. The perianth is white, tube green. It is a very pretty little plant. *Pimelea* from pinele, fat.

ROSCOEA PURPUREA.—Purple-flowered. (Bot. Reg. 61.) Zingiberacæ. Monandria Monogynia. A native of the northern provinces of India. The entire genus is peculiar to the Himalayan Mountains. The present species has bloomed in the garden of the London Horticultural Society. The tubular part of the flower is whitish, tinged with purple. The large-lip portion of it of a fine violet purple. *Roscoea*, in compliment to William Roscoe, Esq.

STATICE PECTINATA.—Comb-flowered. (Bot. Reg. 65.) Plumbaginacæ. Pentandria Monogynia. A native of the Canaries, and is a pretty half-hardy or greenhouse perennial plant. Like several others, it flowers so freely that the plant becomes so exhausted as only to be of two or three years duration, so that fresh plants should be annually raised. It grows from two to three feet high, and blooms nearly all the summer, if planted out in the open border. It is readily produced from seed, and is the best way to obtain strong healthy plants.

GLADIOLUS INSIGNIS.—Remarkable Corn Flag. (Pax. Mag. Bot. 223.) Iridacæ. Triandria Monogynia. This very splendid flowering plant was purchased at the sale of the late Mr. Colville's plants, Chelsea. It has bloomed in the collection of Messrs. Lucombe, Pince, and Co., of Exeter, and is most strikingly beautiful. The flowers are large, and of a splendid crimson red colour, the three lower petals having a purplish streak down the centre of each. It deserves a place wherever it can be grown, being one of the gayest ornaments in the flower garden. It flowers profusely, when grown in a bed of two-thirds sandy peat and the rest rich loam, with the above gentlemen. It blooms from the end of May to September.

PELARGONIUMS. (Continued from page 201.)

BEATRICE.—Pretty blush, having a large spot on each of the upper petals, something in the way of Joan of Arc.

BEAUTY (Foster's).—Of a beautiful rosy flesh colour, upper petals with a large dark spot. The flower is large, and of fine form.

ISEDORUM.—Fine scarlet-red, having but a small spot on each upper petal. The flower is large, and produces a very glaring show.

RIENZII.—Pretty rosy-pink, the upper petals having each a large dark spot. Good form.

ALEXANDRINA.—Very pure white, the upper petals having a large dark purple-crimson spot. Good form.

ANNETTE.—White, with a slight tinge of blush, upper petals having a large dark spot, slightly lined to the outer edges. Good form.

ELIZA SUPERBUM.—White, with slight tinge of blush, upper petals having a large dark spot, much lined to the edges.

BRIDEGROOM.—Lower petals of a fine pale rose, upper having a large dark clouded spot, shading off at the edge to a rosy-crimson. The centre of the flower is much lighter, giving it a pretty contrast. Of fine form.

FLORENCE.—Rosy-pink, with a lighter centre, upper petals having a dark crimson spot. Good form.

CERITO.—Light blush lower petals, upper of a fine rosy blush, having a very dark spot. Of fine form.

CYNTHIA.—Very pure white, upper petals having a large clouded purple-crimson spot. Good form.

RAFFELLE.—Pretty light blush, gradually becoming lighter to the centre, upper petals having a large clouded spot. Of very fine form.

ZENOBIA (Pince's).—Fine crimson, light centre, upper petals having a large and very dark spot. Of first-rate form.

MASTERPIECE.—Fine rose, upper petals a deeper rose, having a bold dark spot. Of fine form.

WARRIOR.—Fine scarlet-crimson, having a lighter centre. The lower petals are lighter coloured than the upper. The latter have a large dark spot on each. Of fine form.

MACHANTHA.—White, with a lilac tinge, having a large clouded spot. Good form.

JUBA.—Pretty purple, having a large dark spot. Of good form.

KATE NICKLEBY.—Lower petals pink, upper ones fine rose, having a large dark spot. Fine form.

CRESSIDA.—Purplish-pink, upper petals having a large dark clouded spot. Fine form.

ENCHANTRESS.—White, having a very large dark clouded spot. Flower of large size and first-rate form.

[All the sorts enumerated in our numbers for August, September, and what are here described, are first-rate in their classes, fit for showing, &c.—CONDUCTOR.]

(To be continued.)

IN BOTANICAL REGISTER, NOT FIGURED.

PERISTYLUS GOODYEROIDES.—From the north of India. It is an herbaceous species of Orchidææ, producing its pure white flowers in long spikes; they are about the size of the lily of the valley, and are equally fragrant.

DENDROBIUM (Onychium) ACICULARE.—Mr. Cuming sent this curious little species from Singapore to Messrs. Loddiges. The base of the stems is angular and conical; the upper part tapers and is very slender. At the end of the short peduncle a solitary flower is produced. It is yellowish, tinged with pink.

LIPARIS SPATHULATA.—An orchidæa. A native of India, imported by Messrs. Loddiges. The flowers are produced on a long raceme; they are very small, green, and uninteresting.

EPIDENDRUM (Aulizeum) VISCIDUM.—Imported from Mexico by Messrs. Loddiges. It is much like *E. ciliare*; but the flowers are smaller, and have a weak smell, like cucumbers.

MAXILLARIA MACROPHYLLA.—A new variety of it has bloomed with Messrs. Loddiges, having the inside of the sepals and tips of petals stained with a fine purple.

DENDROBIUM GEMELLUM.—Messrs. Loddiges have obtained this from Singapore. The flowers are of a pale yellowish-green, and the plant is of a long grassy-leaved form.

ONCIDIUM MICROCHILUM.—Sent from Guatemala by Mr. Skinner. It has bloomed, we believe, with Mr. Bateman. The flowers are the colour of *O. crispum*.

ONCIDIUM WENTWORTHIANUM.—Sent by Mr. Skinner to Mr. Bateman, with whom it has flowered. It is a very distinct and highly-beautiful species, approaching *O. baneri* and *O. altissimum* in appearance, and though not so robust, yet rivals them in length of stems; it is much used in adorning altars in its native country. The flowers are yellow, richly stained with crimson. It does not afford compound lateral branches from the spike.

BALBOPHYLLUM FLAVIDUM.—From Sierra Leone. It has bloomed with Messrs. Loddiges. The flowers are of a pale yellow, arranged in a loose spike.

ERIA NUTANS.—An Orchideous epiphyte, having a large nodding terminal white flower. The tips of the labellum and petals is yellow. From Singapore, and bloomed with Messrs. Loddiges.

GROBYA GALEATA.—From Brazil. It has bloomed with Messrs. Lucombe, Pince, and Co., and with G. Barker, Esq. It has the habit of *G. Amherstiae*. The flowers are of a dull green, stained with purple.

PHOLIDOTA CONCHOIDEA.—Mr. Cuming sent this to Mr. Bateman from Manilla. It has been six months in forming its flower spike; it has, however, bloomed, and the flowers are about twice the size of *P. imbricata*.

CONVOLVULUS FLORIDUS.—A shrubby greenhouse plant. A native of Teneriffe; having long, grey, willow-like leaves, and terminal panicles of smallish cream-coloured flowers. It flowers very abundantly, and is a pretty greenhouse plant.

PRONAYA ELEGANS.—From the Swan River. It is a pretty twining evergreen shrub, having the habit of a *Sollya*, and terminal clusters of pale lilac flowers. It is a greenhouse plant, which will flourish in the open border in summer, or perhaps endure a mild winter.

IPOMEA PENDULA.—From Norfolk Island, and has been raised from seed by Mr. Robert Arnott, Cambrian Nursery, Charlton Kings, near Cheltenham, with whom it has flowered, during the past summer, in a pot out of doors. The flowers are about two inches long; purple. It is a woody plant, with many prickles on the stem. It will flourish freely in the greenhouse.

THOMASIA CANESCENS.—A dwarf-growing shrub from the Swan River, which has bloomed in the collection of Robert Mangles, Esq. The flowers are of a bright purple, and the plant is a pretty addition to the greenhouse.

IMPATIENS CANDIDA.—A tender annual from India. It grows two yards high; the flowers are of a pure white, spotted with crimson, and are produced in terminal clusters. It is in the collection of the London Horticultural Society.

SALVIA REGIA.—A half-hardy herbaceous plant, introduced by the London Horticultural Society. It has a shrubby stem, light green leaves, and long bright scarlet flowers.

MARTYNIA FRAGRANS.—A native of Mexico, and half-hardy annual. The flowers are large, purple, with a bright yellow streak along the middle of the lower lip.

SALVIA PRUNELLOIDES.—Sent from Mexico to the Durdham Down Nursery. It had been found growing on rocks upon the sides of the volcanic mountain Jorulla. The roots are tuberous, about the size of a walnut. The plant grows about eight inches high, and the flowers are blue.

POLYSTACHYA CEREAE.—Messrs. Loddiges received it from Oaxaca. The full-blown flowers have the colour and texture of old wax. They are produced on a dense raceme, about one inch long.

ERIA VELUTINA.—Messrs. Loddiges received it from Singapore. It has dirty-yellow flowers.

PUYA ALTENSTEINII.—From Columbia. It has the habit of *Tillandsia*, producing oval heads of rich scarlet bracts, and long snowy white flowers. It is a splendid ornamental stove plant.

LOBELIA DISCOLOR.—An herbaceous greenhouse spreading plant, producing

erect panicles of small blue flowers. A native of Mexico. Syn. *lobelia subnuda* of Mr. Bentham.

OLINIA CAPENSIS.—A myrtaceous shrub from the Cape, bearing close terminal clusters of greenish flowers, succeeded with bright reddish berries. It is a greenhouse plant, blooming from April to the end of June. The fruit ripens the second year, so that the plant has at the same time flowers, green fruit, and ripe red fruit.

OXALIS OTTONIS.—A native of Chili, having bright yellow flowers. It is in the collection at the Birmingham Botanic Garden.

MICROSTYLUS HISTIONANTHA.—From La Guayra. The flowers are produced at the end of a long scape; they are small, green.

NOTICED IN NURSERIES.

At Mr. Knight's, King's Road.

TROPÆOLUM.—A new species, with flowers of a bright yellow. In colour and form, too, like *T. Canariense*, but at least three times larger. It is a very pretty and showy plant.

At Mr. Henderson's, Pine-Apple Nursery, Edgeware Road.

SILENE.—A new species, blooming profusely in the greenhouse. The flowers are about an inch across, whitish at the centre, rose coloured at the extremities. The plant grows about half a yard high.

COMPARETTIA *ROSEA*.—This lovely flowering Orchidea has bloomed in the collection of Messrs. Loddiges, and though but a small plant, the racemæ of its lovely flowers had a beautiful appearance. When in a vigorous state, it will no doubt be truly handsome.

At Messrs. Rollisons', Tooting.

CURCUMA ROSCOEANA.—A fine specimen has been in bloom for more than two months. The spikes are about nine inches long. The flowers are bright yellow, having fine scarlet envelopes. The plant grows about a foot high.

SALVIA PATENS GRANDIFLORA.—This is equal, if not superior, in colour, to the original species, but has a larger flower. The lower part of the lip, the claw as it is termed, folds up nearly round in the patens, but in the present kind it is quite flat and broad, rendering it much more showy.

SOLANUM JASMINIFOLIA.—A new species, not yet bloomed with Messrs Rollisons.

ASCLEPIAS ROSEUS.—A greenhouse species, with rose coloured flowers, but not yet bloomed.

THUNBERGIA HAWTAYNEANA *VAR. ALBA*.—A white flowered variety, not yet bloomed. This, no doubt, will be a very interesting and valuable addition. The fine deep blue, grown in contrast with the white, would produce a most striking appearance, and ought to be grown in every collection.

MANETTIA SPLENDENS.—The plant has not bloomed, but it appears much more robust than any other species we have seen. If the flowers be as fine in colours as the others, and proportionately larger in its blossoms, it will be a very valuable acquisition.

DILLWYNIA GRANDIS.—The flowers are large, when contrasted with any others we know. Of a beautiful yellow, with a scarlet keel. It deserves to be in every greenhouse. Its numerous showy flowers, pretty habit of plant, and long period of blooming, alike recommend it.

HOYA PENDULA.—Imported from the East Indies. Not yet bloomed, but if as handsome as the well-known *H. carnosa*, it deserves admittance wherever it can be cultivated.

MANETTIA.—A new species, introduced from Mexico. The flowers are said to be blue, but has not yet bloomed in this country.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON BLOOMING THE SCARLET GERANIUM, &c.—Will any of your subscribers favour me with the best method of blowing the fine Scarlet Geraniums? Every means hitherto used have failed to produce *abundant* bloom. In "Smith's New Scarlet," for instance, I have seen it growing most luxuriantly against the wall in the open ground, and likewise in pots in the conservatory, but producing only *one* large truss. I have likewise seen it growing in a *small* pot, inserted in a large one, with no better success. It may be, that from the immense size of the truss, and the time it consequently takes to form and perfect the flower, Nature is stinted in her operations.

One more question I am desirous of asking. How do the metropolitan cultivators produce such fine and fragrant pots of Mignonette? Are there *two* sorts, or does it depend alone on the manner of growing it? [On the latter.—CONDUCTOR.] No private gardeners can show such Mignonetté as adorns the London houses in the spring, and certainly it is nowhere so powerfully fragrant, or so healthy in appearance.

Vicarage, near Arundel.

AN OLD SUBSCRIBER.

A subscriber will be much obliged by the following being inserted in the FLORICULTURAL CABINET for November:—

ON A LIST OF MICHAELMAS DAISIES.—As the much-admired autumnal flower, the Michaelmas Daisy, is now in blossom, and having only a few of the more common varieties, and wishing to increase my selection, perhaps you will oblige me by stating where an assortment of the new varieties may be obtained. Any party having such for sale might, in a penny letter, send labelled blossoms in a lozenge, or other light box, addressed C. M., 4, Butter Market, Reading, which will greatly oblige a subscriber to your valued CABINET.

ON A LIST OF CINERARIAS, &c.—I should feel particularly obliged if you, or some one of your numerous subscribers, would furnish me, in your next CABINET, with a select list of the best Cinerarias; the height they grow under good treatment; and where I can procure them; with the price.

Also the best way to treat Seedling Geraniums to make them flower: will they flower the first year? A compliance with this request will oblige

Bexley, Kent, Nov. 9, 1840.

A SUBSCRIBER.

[A list will be given in our next number.—CONDUCTOR.]

ON DESTROYING AN INSECT, &c.—During the whole of last summer I was troubled with a small insect, very much resembling the Cochineal, in my hot-beds, which, not content with eating the bloom of the cucumbers, melons, &c., they actually devoured the fruit. I have tried fumigating with tobacco, lime, soot, sulphur, a strong lees with soft soap, and everything I could possibly think of, but without effect; they generally secreted themselves in the mould of the bed, or crevices of the brick-work, when not committing their devastations. I have again commenced forcing, and have cucumbers just setting their fruit, but am sorry to say they have again made their appearance, with the like results. If you, or any of your numerous readers, will inform me, through your CABINET, how they are to be exterminated, you will confer an obligation on

14th Nov., 1840.

A CONSTANT SUBSCRIBER, NEAR CHARD.

A LIST OF STOVE PLANTS.—You would much oblige a subscriber to your valuable CABINET by giving a list of about twenty or thirty of the best stove plants, such as you can recommend as a choice collection for a small stove. If it is not too much trespassing on your time, I shall esteem it as a great favour.

Knightsbridge, Nov. 12, 1840.

A SUBSCRIBER.

[A list will be given in the January number.—CONDUCTOR.]

ON PILLAR ROSES, FRAME FOR, &c.—Will you, or some correspondent, be so obliging in the next number of your very useful CABINET as to give some directions for arranging a pillar of Roses; viz., what kind of frame it should be, and the names of ten or a dozen Roses suited for that purpose, to be grown in a cold soil and low situation. How many roses to be attached to each pillar, and a sketch of the kind of frame.

November 9th.

A HAMPSHIRE GARDENER.

[The soil being a cold one, as it is usually termed, and situation low, it is better not to plant before the end of February. We therefore insert the query, so that among our numerous readers, we hope some will be able to give the information desired from practical results. We will however, if not done by others, reply to it in the January number.—CONDUCTOR.]

ON DESTROYING WORMS INFESTING A GRASSPLOT.—Having recently formed a grassplot from a piece of ground which had been for some time previously uncultivated, I am greatly annoyed to find the whole of the turf laid down perforated all over by the worms, which, as you well know, leave a deposit of mud, which completely disfigures the grass. Now, as I am a tyro in these matters, be pleased to point out (in your next number of the FLORICULTURAL CABINET) a remedy for this increasing evil. I can destroy the worm in various ways, but I am fearful of destroying the grass at the same time. If you can assist me in this matter, you will greatly oblige yours very obediently,

Park Road, Stockwell.

J. FARTHING.

[Take several unslaked lime stones; put them into a tub of water; when dissolved, stir them up, so as to diffuse the lime entirely in the water. After the same is settled and quite clear, pour it over the grassplot, so as to sink as deep as the worms retire, and it will destroy them. We have found it quite effectual in applications of it in Yorkshire. It is very useful, too, to sprinkle lime dust over the grassplot. It destroys moss, worms at the surface, and improves the green of the grass.—CONDUCTOR.]

ON A LIST OF GERANIUMS FOR SHOWING AT EXHIBITIONS.—Having of late seen much said in your FLORICULTURAL CABINET on that beautiful tribe of plants, the Geraniums, I am induced to ask you to give a descriptive list in one of your early numbers of a few of the best show-flowers, believing it will be useful to some of our numerous young florists and amateur geranium growers.

W. LYNN.

[In our numbers for August, September, and December, we have given descriptions of some of the best we saw in the exhibitions and collections around London, and shall insert more in our next. As colours and descriptions, &c., are given, from them a selection, to be varied, can best be made.—CONDUCTOR.]

ON CALCEOLARIAS, &c.—Judging from the plates of seedlings in your Magazine, and from accounts given me by a friend who visited the exhibition this summer at Chiswick, I am led to conclude that we know but little of the Calceolaria in its full perfection at this side the Channel. If not interfering with your arrangements, a plate containing blossoms of a dozen or so of the best *named* varieties, distinguishing shrubby from herbaceous, would be very instrumental in bringing these truly beautiful flowers into more general cultivation here, and would be very gratifying to many of your Irish readers.

Have the Seedling Fuchsias, figured in No. 91, been yet named, or sent out ?

Can you inform me where bulbs of *Calochortus venustus* can be obtained, and the price? An early answer to this in the pages of the *CABINET* will oblige,
Clonmel, Nov. 19, 1840. AN ORIGINAL IRISH SUBSCRIBER. 7]

[We have taken drawings of several of the best we saw in the Chiswick Exhibitions, and in the first-rate collections, and they will soon be given. The Fuchsias, along with ten others, will be sent out in the spring; we take orders for them. We can supply the *Calochortus*, as can other nurserymen, at 5s. each.—CONDUCTOR.]

REMARKS.

ON THE HYACINTH.—Being now so generally cultivated, not only by nurserymen, but by ladies themselves, I think I cannot be too particular in giving a full account of their treatment both in water and in all the other modes of culture. I shall therefore commence with that which is most generally adopted in town, which is, growing Hyacinths in glasses of water. To ensure fine heads of bloom, very great care should be taken in the selection of the bulbs. It is almost indispensable that they should be round, not only on account of the glasses being so, but when they are in flower; if the bulbs are not round, they are very liable to fall over: and should there be any side shoots attached to them, they ought to be carefully taken off before being placed in the glass, as they only tend to weaken the flower, and do not add to its beauty: it is also best to select those bulbs which appear to have but one shoot in the centre, for when there are two or three, they weaken each other, and spoil the beauty of the flower, by causing it to be small and diminutive. Before I proceed with its culture, I think it will not be inappropriate to mention the names and colours of a few of those which succeed best when grown in glasses, as there are a great many very beautiful varieties which grow very late, and are consequently quite unfit for this purpose. I have, therefore, made a selection of a few which flower very early, others which succeed them, and lastly, those which are decidedly late.

Early.

Waterloo, semi-double, dark red.
L'Ami du Cœur, single, bright red.
Herstelde Breede, single, bright red.
Prince Talleyrand, single, clear white.
Emicus, single, blue.
A-la-mode Epuisé, double, white.

Successions.

Grootvorst, double, bluish.
Prince of Waterloo, double, clear white.
Diebistch Sabalskansky, single, dark red.
Kroon Van Indie, double, dark blue.
Parmenio, double, light blue.
Duchesse de Parma, very double, rosy red.

Late.

Lord Castlereagh, double, large, white.
Van Speyk, single, red.
Talma, single, flesh colour.
Comte de St. Priest, double, light blue.
Bonaparte, single, purple.
Envoyée, double, sky blue, with dark centre.

Besides these there are many others; but, for a moderate collection, those mentioned will be found a most excellent assortment, both as to colour and variety. After having procured the bulbs, which may be had at all respectable nurseries and seed shops about London, they should be placed into glasses, and the water poured in so as to touch slightly the bottom of the bulb; they should

then be put into a cupboard, or any dark place, for about three weeks, by which time they will have made fine long roots: the water should then be changed, and the bottom of the bulb carefully cleaned, and all mouldiness washed off. When they are again placed in the glasses, the water should rise to about half an inch above the lowest part of the bulb: they may then be placed either at the window or in any other part of the room that is convenient, where they will require water once a fortnight until they commence blooming, when they will require it almost every other day, as at that period they grow much faster and absorb more water than at any other. After they have bloomed, the bulbs should be taken out of the glasses, and if there is a garden attached to the house, they may be planted in any part that is out of the way, where they may remain until the middle of August, when they should be taken up and dried: they will then be fit either for planting in pots or in the garden; the latter would do best, as they never succeed well in glasses a second year.

When cultivated in pots, they should be planted about the beginning of November, in a mixture of mould, which may be procured at any gardener's, and placed in the garden or on a ledge, whichever is most convenient: a cellar would answer the purpose very well, where there is no garden. They should then be well watered once or twice, and covered over with ashes or mould to the depth of about one foot, until the middle of December, when, after being cleaned, they may be brought into the room, where they should be watered once a day until they begin to grow very strong, when they may stand in water, with a saucer placed under the pot. After they have done flowering, they may either remain in pots or be planted in the garden, and treated in the manner before described.

There is also another very pretty and convenient mode of cultivating them, which is in moss without any mould. This is very convenient for large vases, moss being so much lighter than mould, and therefore more easily moved from one place to another. When grown in this manner, the pot or vase should be filled with moss, and the bulbs pressed firmly into it; after which a small piece of wire or string should be placed across the top of the vase to prevent the moss from falling out. When the bulbs begin to grow, care should be taken that the moss is always kept wet, which is easily done by sprinkling a little water over it every day, in the same manner as ordinary plants. This is the only attention they require, and they will flower equally well as those that are grown in pots.

THE CROCUS requires much the same treatment as the Hyacinth; but, from the smallness of its growth, it may be cultivated in a great variety of ways. Crocuses will flower very well if placed in a common saucer filled with sand, and placed upon the table or mantle-piece: they are also quite hardy, and may be grown in pots and boxes outside the window, where, from the gay colour of their flowers, they form a very pleasing contrast to the dulness of everything around them. When placed outside the window, they will scarcely ever require water, except the weather should happen to be very mild, which it is not likely to be at this season of the year.

NARCISSUS.—The following are the best varieties of this sweet-scented flower, which thrive well in glasses.

- Double Roman, white, interspersed with yellow.
- Soleil d'Or, single, yellow, with orange cup.
- Grand Monarque, single, white, with yellow cup.

These varieties should be treated much in the same manner as Hyacinths, and after they have done flowering should be planted in the garden, where they may remain during the winter, so as to flower early in the spring; or may be taken up in the autumn, and treated as described for the Hyacinths.

TULIPS may be flowered very early, according to the time they are planted. They may be seen in flower in December, and again in April. They do not flower well in glasses, as the bulbs are too small. They may be grown either in mould or moss, and require a good supply of water. The after part of their treatment is the same as that described for Narcissus and Hyacinths.

Extract from Bouquet, or Lady's Flower Garden.

As a subscriber to your FLORICULTURAL CABINET, I beg to suggest what I think would be an improvement in your future indices to that work, and that is to place the plate and the description opposite each other. As they stand at present, the plate is at the beginning of the month and the description at the end, which, when bound up, makes the reference inconvenient. I discovered this in the first volume, and on giving it out to bind I ordered the plates to be put at the end of each month, opposite the description, and I altered the numbers of the plates in the index with the pen. This plan I have adopted in binding all the subsequent numbers. By the method I have suggested there would be no plate at the beginning of the volume, which I think there ought to be. I should propose therefore that at the end of the year you should give an extra plate of some good flower, and extra pains taken in the engraving, to make the volume open well; and charge it as a double number. Your well-wisher,

Manchester, October 28, 1840.

E. B.

[We thank our correspondent for the suggestion. We shall however, in future, place the plate as usual, and the first original article in each number to contain the treatment, &c., of the plants figured. We hope this will meet the wishes of our correspondent.—CONDUCTOR.]

ON PREPARED CANVASS.—I think that the best answer which I can give to the inquiry of P. A. R. T. will be to forward to him the accompanying specimens of prepared canvass. I do not conceive that the quality of the canvass is of much consequence; but it may be as well to observe, that the fabric must be fully saturated with the resin and lard, and that the iron used for the purpose must be sufficiently heated. And, moreover, that the proportion of lard must be as small as possible, that is, only sufficient to overcome the brittleness of the resin, which latter is the substance that imparts semi-transparency to the canvass.

In a recent experiment which I have made, I find that *linseed oil* is better than lard for our purpose; but I must again repeat, that as the object of lard or oil is merely to give the requisite degree of flexibility to the resin, it is best to use of either of the former substances only so much as will ensure this condition, as a large quantity would impair the transparency of the prepared canvass.

S. A. H.

[The specimens sent to us appear admirably adapted for the purpose, and if our correspondent, P. A. R. T., will write us where to send them to, we will do so on receipt of the instruction.—CONDUCTOR.]

TAYLOR'S PINK AND PURPLE BAZAAR CARNATION.—This valuable Seedling Carnation has been purchased of Mr. Taylor, by Mr. John Sealy, of Mugland House, St. George's, near Bristol.—CONDUCTOR.

FLORICULTURAL CALENDAR FOR DECEMBER.

PLANT STOVE.—Roses, Honeysuckles, Jasmynes, Persian Lilacs, Azaleas, Rhododendrons, Carnations, Pinks, Primroses, Mignonette, Stocks, Aconites, &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 top, 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, which gives a succession. If any of the forced plants be attacked with the green fly, a syringe with diluted tobacco-water will destroy them. If the leaves appear bit, and turn brown (the effect of damage by red spider), a syringe of soap-suds at the under side of the leaves is effectual to destroy them.

The glutinous substance remaining not only kills those it is applied to, but prevents others returning there.

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. Whilst in a cool and moist atmosphere, the shoots will often push at the underside numerous rootlets. Where such are produced, the shoots should be taken off and potted; they make fine plants for next season, and are easier propagated now than at any other season.

Auriculas and Polyanthuses 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 a free air, and be raised above the ground. If they are under a glass case, it will be much better than when 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 undistributed, reduce them to a suitable size by cutting them round with a sharp spade. When it is wished 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 over watered, 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 benefited by a little mulch of any kind being laid over the 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 PLATE.

SMITH'S DR. COKE PINK.—This very superb *Rose-petalled Pink* was raised by Mr. John Smith, Faversham, Kent; and is considered to be equal, if not superior, to any other of its class. We recommend it to the notice of every admirer of this esteemed flower. The specimens sent us were most distinct in colour, pure white and a dark regular lacing, and of a desirable size.

BASSETT'S MISS MOLESWORTH PANSY.—Was raised by Mr. Thomas Bassett, the Priory, Bodmin, Cornwall. It is very singular in the contrast and regularity of its colours, of fine form, and ranks among the best we have seen, deserving a place in every collection. Mr. Bassett has the kind to dispose of at a very reasonable price.

SILVERLOCK'S BLACK KNIGHT PANSY.—This is the best intense dark Pansy we have seen, having every desirable property, and deserves to be in every collection. It was raised by Mr. H. Silverlock, Nurseryman, Chichester, Sussex, who has plants to dispose of at a very reasonable price.

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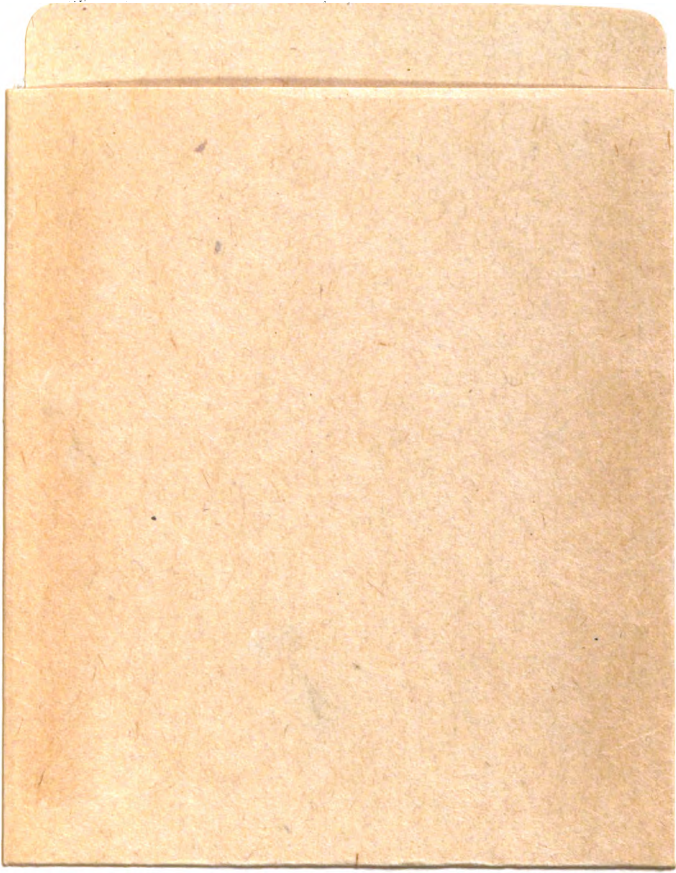
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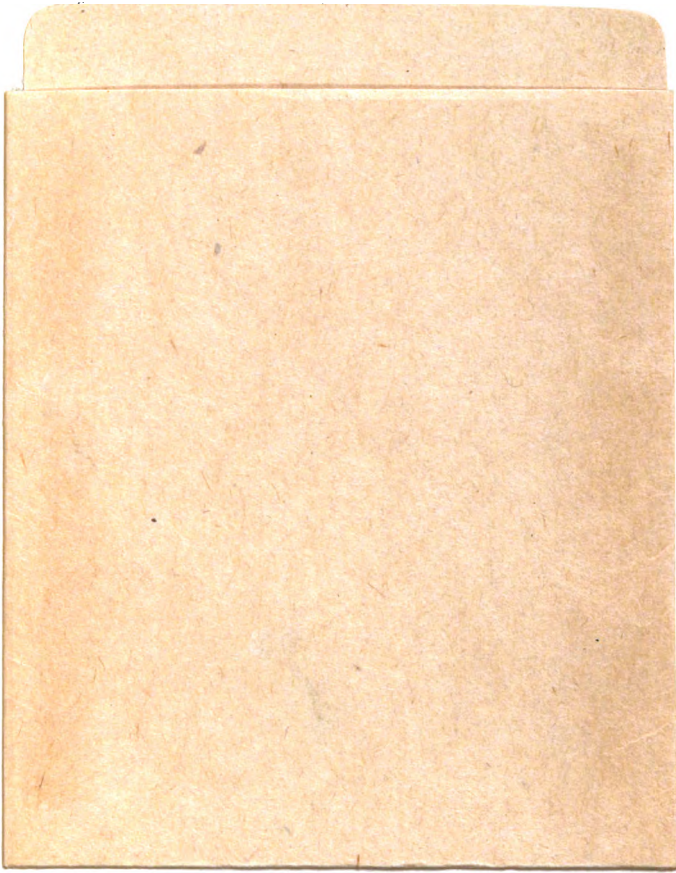
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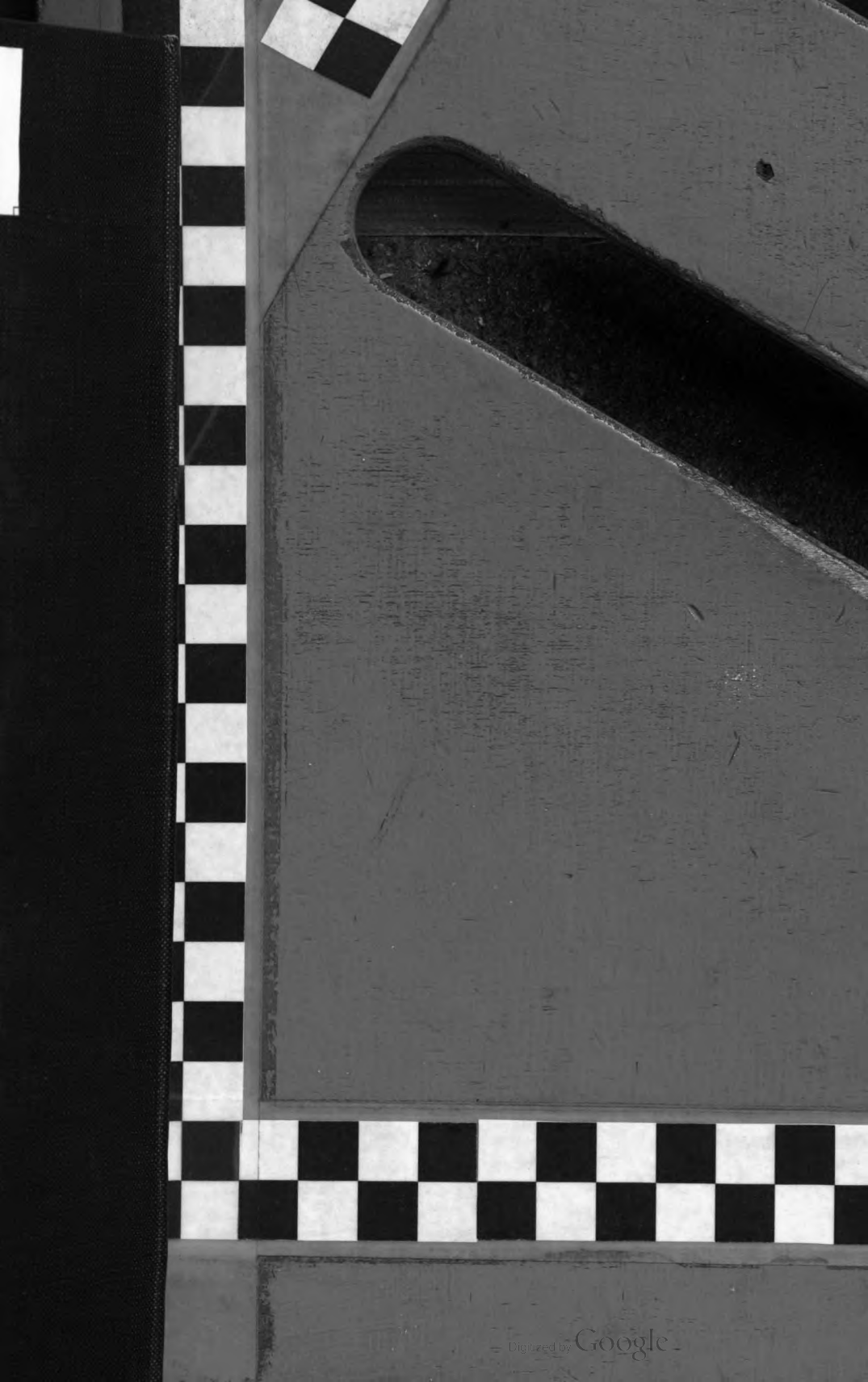


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