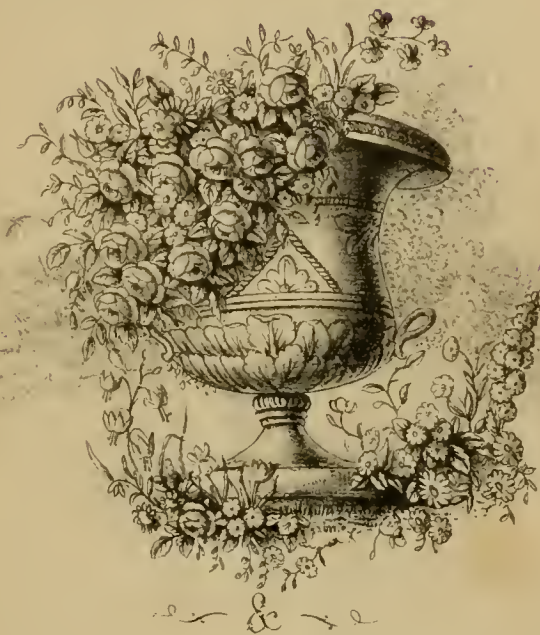


T H E

FLORICULTURAL CABINET



FLORIST'S MAGAZINE



C. Grafton, Zimo.



THE

FLORICULTURAL CABINET,



FLORISTS' MAGAZINE.

JANUARY TO DECEMBER, 1851.

CONDUCTED BY
JOSEPH HARRISON.

LONDON :
WHITTAKER AND CO., AVE MARIA LANE.

1851.

Wm. Clowes & Sons

WILLIAM CLOWES & SONS



PRINTED BY

LONDON :
Printed by WILLIAM CLOWES and Sons,
Stamford Street.

PREFACE.

WE have again arrived at the close of another year's volume of the *FLORICULTURAL CABINET*, and the agreeable duty now devolves upon us of recording the usual annual address to our correspondents and readers.

It has been with feelings of the most flattering description that we have presented the previous eighteen volumes. The continually increasing support we have received during the present year, and by which we have been enabled to complete the nineteenth volume, we are free to acknowledge a proportionate increase in the debt of gratitude is due from us to our contributors and readers. To them we most respectfully tender our thanks for the encouragement which has so liberally been afforded us, and in the succeeding volume our utmost exertions shall be directed to render it increasingly interesting and useful, so that it may be worthy of their continued confidence and support.

Aware that many of our readers have not the opportunity of frequently visiting large collections of plants, nor have the means of ascertaining the continued introduction of new plants, we have therefore paid considerable attention to obtain particulars of all such as are received from time to time in the large establishments of our own country, as well as those on the Continent, from whence such new plants can now be so easily procured. We also feel assured that many

of the most showy-flowering plants of prior introduction are unknown to numbers of our readers, and we have, in consequence, given particular descriptions each month of such plants as we consider merit a place in even any select collection. No other periodical contains anything near such a number of described new or valuable plants. Conscious of its usefulness, we shall pursue the same course successively.

We shall be glad at all times to receive suggestions on any subjects calculated to improve our future volumes; and the repeated kindness of our contributors and readers, we think, justifies our expectations as to their future assistance. By the aid of a generous FLORAL PUBLIC we have been enabled to attain the elevated position we occupy, and our utmost energies shall on all occasions be employed to retain it.

The recommendation by our friends of the FLORICULTURAL CABINET to others will prove an increasing stimulus to our exertions.

Richmond, 26th November 1851.



New varieties of Daisies.



FLORICULTURAL CABINET

JANUARY, 1851.

ILLUSTRATIONS.

NEW VARIETIES OF DAISIES (BELLIS PERENNIS).

THE generic name *Bellis* is stated in fabulous history to be derived from the circumstance of *Belides*, a grand-daughter to Danaus, and one of the nymphs called Dryads, that presided over the meadows and pastures in ancient times. *Belides* is said to have encouraged the suit of *Ephigeus*; but, whilst dancing on the grass with this rural deity, she attracted the admiration of *Vertumnus*, who, just as he was about to seize her in his embrace, saw her transformed into the humble plant that now bears her name.

An old astrological writer informs us that this plant is under the sign Cancer, and under the dominion of Venus, and therefore good to cure all the pains caused by the fair goddess, particularly those of the breast: hence it becomes all the *lack-a-daisy* swains to give thanks that this plant is so bountifully provided as a remedy.

The name *Bellis* is now deduced from the Latin *bellus*, handsome, or pretty. Others are of opinion that it was called *Bellis a bello*, from its being found useful in the field of battle to heal the wounds of soldiers, and on which account it has also been called *Consolida*. The name *Daisy* is derived from a Saxon word: it means Day's-eye, in allusion to the flower expanding when the sun rises upon it and closes at sunset.

In France the flowers are called *Paquerettes*, because the blossoms appear most abundant at the approach of *Paques* (Easter). The plant, too, is named *Marguerite* (Pearl), and by some Pearl of the Day. It is stated, St. Louis took for a device on his ring a Daisy and a Lily, in allusion to the name of the queen his wife, and to the arms of France, to which he added a sapphire, on which a crucifix was engraved; the motto, "That it held all he counted most dear," viz., "Religion, France, and his spouse."

We do not recollect any flower that we could introduce as our first

ornament for the New Year that would be so *universally admired* as the one we have selected. For who can see the flower, or a coloured figure of the Daisy, without a thousand delightful associations of infancy. To those who have passed their early days amongst Daisy-spangled meadows, the very *name* will seem to renovate the imagination and carry them back to their earliest pleasures. This pretty flower is the favourite of all: it may be styled, "The Robin of Flowers." Turn the blossom all ways, and on every fresh view new beauty appears.

No other flower has been so frequently celebrated by our best poets: Milton says—

“ By dimpled brook and fountain brim,
The wood nymphs deck'd with Daisies trim,
Their merry wakes and pastimes keep.”

The Daisy has been made the emblem of innocence, because it contributes more than any other flower to infantile amusement and the joys of childhood. Cowper says—

“ ——— in the spring and playtime of the year,
That calls the unwonted villager abroad
With all her little ones, a spontaneous train,
To gather kingcups in the yellow mead,
And prink their hair with Daisies.”

Shakespeare celebrates this flower in his favourite song to spring—

“ When Daisies pied, and violets blue,
And lady flowers all silver-white,
And cuckoo buds of yellow hue,
Do paint the meadows with delight.”

Montgomery says—

“ There is a flower, a little flower,
With silver crest and golden eye,
That welcomes every changing hour,
And weathers every sky.

And this small flower, to nature dear,
While moon and stars their courses run,
Wreaths the whole circle of the year,
Companion of the sun.

* * * *

’Tis Flora’s page, in every place,
In every season, fresh and fair,
It opens with perennial grace,
And blossoms everywhere.

On waste and woodland, rock and plain,
Its humble buds unheeded rise.
The Rose has but a summer reign,
The Daisy never dies.”

Wordsworth says, on viewing the Daisy—

“ If stately passions in me burn
 And one chance look to thee should turn,
 I drink out of an humbler urn.
 A lowlier pleasure ;
 The homely sympathy that heeds
 The common life our nature breeds,
 A wisdom fitted to the needs
 Of hearts at home.

When smitten by the morning ray,
 I see thee rise alert and gay ;
 Then, cheerful flower ! my spirits play
 With kindred gladness.
 And when at dusk, by dews opprest,
 Thou sinkst, the image of thy rest
 Hath often eased my pensive breast
 Of careful sadness.”

The above lines of the poets named are but small specimens of what they, and many others, have wrote about this pretty flower in its native state so universally found. We have now, however, to notice the Daisy producing double flowers ; and in that state is one of the prettiest, lowly ornaments of the flower-garden, or (in suitable places) the pleasure-ground.

The Daisy is what Botanists term, a compound flower, consisting of a number of small yellow florets placed upon one common receptacle (like a number of cups upon a stand) ; each flower contains about 150 of these florets. The centre ones are tube-shaped, and those at the margin of a flat form. It is stated that the first double-flowered Daisy originated by Vertumnus selecting a very beautiful one in a meadow, which he removed to his garden, and particular attention was paid to promote its growth. The effect of growing it in a richer soil was, the yellow florets were transformed into petals, and thus became completely what is termed a double flower.

Whilst some have only flat-shaped petals, others are formed of little pipes, or quills, and are termed Double-quilled Daisies. The most curious variety is the Proliferous Daisy, commonly called the Hen and Chicken Daisy, because the flower is surrounded by a number of smaller flowers, which are produced from the sides of the principal flower, but out of one and the same calyx.

Our respected correspondent Mr. P. Mackenzie, of West Plean in Scotland, favoured us with some remarks on the double-flowered Daisies, which are inserted in vol. ix., p. 270, and he observes that it was the common opinion that there were only five or six varieties ; but at a recent meeting of the West Plean Horticultural Society there were twenty varieties exhibited, prizes having been offered for the best collection. On the Continent very considerable attention has been paid to obtain improved varieties, and there now are upwards of 105 distinct kinds. M. Louis Van Houtte, nurseryman, of Ghent, possesses a most

extensive collection, which includes all the best varieties. Those we now figure are some which he has selected and figured in his "Flora of the Gardens of Europe." We need not say they are beautiful, and deserving a place in every garden; many of them are like miniature Dahlia flowers, or Ranunculus blooms. They are easily cultivated, flourishing in a good loamy soil, and readily increased by division. They succeed well in pots; and, by keeping a stock potted off at various periods of the year, a succession of bloom may be had all the year round, and patches may be plunged in the flower-beds or borders, or otherwise placed as lovely ornaments. We hail with pleasure the appearance of these new varieties, and suggest to our readers in this country that attempts to raise improved kinds will afford them delight, and the results will amply repay for their care. We anticipate the appearance of still greater beauties, and that this pretty flower will take its position at our floral exhibitions. Wordsworth, the late Poet Laureate, writing upon it, prophetic says—

" Child of the year ! that round dost run
Thy course, bold lover of the sun,
And cheerful when the day's begun
As morning leveret :
Thy long-lost praise *thou shalt regain*,
Dear shalt thou be to future men
As in old time ;—thou, not in vain,
Art Nature's favourite."

(We always feel gratified in attempts to encourage our young friends in the cultivation of flowers, and have therefore extended our remarks on this infantile pet flower.)

NOTES ON NEW OR RARE PLANTS.

ACHIMENES BODNERI.—A continental variety; dwarf, and blooms freely. Each blossom is about an inch across, of a lilac-purple, with a small yellow eye. Pretty.

ACHIMENES BAUMANNI.—Another continental variety; dwarf, free bloomer. Each flower an inch across, of a bright rosy-purple colour, and a small yellow eye.

BARBACENIA ROGIERII.—A plant of the Day Lily order, which has recently been obtained from Mr. Van Houtte by some of the nurserymen in England. It requires to be cultivated in the stove. The flower-stems rise a foot high, each having but one blossom. The tube-formed portion is an inch long, the lower half greenish-yellow, and the other pale-purple; but the five large-lobed end divisions, properly called the segments of the limb, are of a rich velvet-like purple. Each flower is three inches across. It is a beautiful flowering plant. (Figured in *Mag. of Botany*.)

BERTOLINIA MACULATA. SPOTTED-LEAVED (Syn., *Eriocnema aeneum*).—A native of Brazil, which has bloomed in the stove at the

Royal Gardens of Kew. It belongs to the Melastoma order of plants. The plant is a creeper, rooting at the joints. The flower-stem rises two or three inches high, terminating in a one-sided raceme of flowers. The leaves are large, and the upper side is of a rich glossy green, shading to a coppery or velvet hue, which with its many distinct veins produce a pretty effect. The under side is of a bright rosy-pink, and contrasts well with the upper. Each blossom is about an inch across, rose-coloured. A very interesting plant. (Figured in the *Bot. Mag.*, 4551.)

BURLINGTONIA PUBESCENS.—A charming stove orchideous Epiphyte from Pernambuco, obtained by John Knowles, Esq., of Manchester. The flowers are produced in what is called a many-flowered panicle. They are of a snow-white, with the lips having three yellow ridges. A very desirable species.

CENTROSOLENIA GLABRA.—A stove Gesneriaceous robust plant. The flowers are of a very broad tube-shaped form, an inch and a half long, the limb (mouth) being an inch across. White with a sulphur-coloured tube. It blooms during autumn and winter in the Royal Gardens of Kew. (Figured in the *Bot. Mag.*, 4552.)

CESTRUM CALYGINUM.—A native of Buenos Ayres. It is a greenhouse shrub, somewhat like a dwarf Olive-plant. The flowers are produced along the ends of the shoots, tube-shaped, an inch long, green, and deliciously fragrant. It blooms freely, and, being an autumn and winter flowering plant, renders it additionally valuable. Many of our readers will know the *C. aurantiacum*, with its charming orange-coloured flowers, blooming also at the same season: both species ought to be in every greenhouse. They grow freely, and are easy of cultivation.

CYCLAMEN MACROPUS. LARGE-ROOTED.—It is a greenhouse species, grown in the Belgium collections. It is a perennial having many-crowned fleshy roots as large as a moderate-sized turnip. The leaves are large, and have very distinct white veins. The flowers are large, and the tube is of a pretty rose colour, and the top divisions are white. They are produced, usually, in winter, and are very fragrant.

EPIDENDRUM LONGIPETALUM (Syn. *E. aromaticum*).—It is a native of Guatemala, from whence it was received by the Horticultural Society. The flowers are produced in a long straggling panicle. Sepals and petals narrow, an inch and a half long, of a brownish-purple colour, tipped with green. The labellum is white, with the lip margined with bright yellow, and striped with rosy-erimson. The plant is very fragrant. (Figured in *Paxton's Flower Garden*, 30.)

GILLIES POINSIANA (Syn., *Poinsiana Gilliesii*).—A half-hardy shrub, a native of Chili, and the flowers are of the pea-formed order. The foliage is of the *Acacia* or *Mimosa* character, and very pretty. The flowers are produced in large terminal spikes. Each blossom is about an inch and a half across, yellow. The fine heads of bloom are very showy. A fine plant, trained against a wall in the open air at Messrs. Knight and Perry's nursery, King's Road, Chelsea, bloomed

the last summer. It will probably require a slight protection during winter. It is a fine plant, and deserves to be against every conservatory wall. The numerous stamens are nearly four inches long, a rich crimson colour, and add to the beauty of the plant. (Figured in *Paxton's Flower Garden*, 28.)

GLADIOLUS GANDAVENSIS, VAR. *CITRINUS*.—This variety is in form and size similar to the species, but the flowers are of a full citron-yellow colour, with a red stripe down the middle of each of the three lower segments of the flower. It is a vigorous grower, and blooms profusely. It is in M. Van Houtte's fine collection of this tribe of flowers.

GLADIOLUS NATALENSIS, VAR. *OLDFORDIENSIS*.—The flowers are large, of a delicate salmony flesh colour, marked with purple. A superb variety, raised by Mr. Cole, of Oldford.

GLADIOLUS NATALENSIS, VAR. *ROSEA-PURPUREUS*.—The flowers medium size, of a deep rosy-red, marked with deep purple-red. Very showy. Also raised by Mr. Cole.

MONARDA ALBIFLORA. WHITE-FLOWERED.—A handsome, hardy, herbaceous perennial plant; grows three feet high. The floral leaves (bracts) are long, of a greenish-white in the middle. The flowers are in verticillate heads, white, with greenish-white calyxes. In the Botanic garden at Leige. A very desirable species, also fragrant.

MONARDA AMPLEXICAULIS.—A beautiful, hardy, herbaceous perennial, growing two feet high. The upper leaves have the nerves and veins of a beautiful purple-red. The floral leaves are pale-green tinged with red. The flowers are produced round a terminal head. Each blossom is about an inch long, tubular, white tinged with rose, and the lower lip beautifully marked with four rows of purple spots. Blooms freely from May to September, and like others of this genus, if a portion of the stems be cut back early in May, they push fresh shoots, which bloom to the end of the summer. It is grown in the Botanic garden at Leige, in Belgium. A very desirable plant for every flower garden.

MONARDA CONTORTA. TWISTED-FLOWERED.—An herbaceous hardy perennial, grows three feet high. The floral leaves (bracts just under the flowers) are of a reddish-purple, or violet with green tips. The flowers are produced in whorls, two or three on a stem. The calyx is red, and the corolla, which is two-lipped, is of a deep rosy-purple. The plant is fragrant. A handsome species, in the Botanic garden at Leige.

OXYSPORA VAGANS (Syn., *Melastoma rugosa*).—Dr. Hooker collected seeds of this beautiful flowering shrub in the hilly country bordering on Darjeeling. The plant grows from three to five feet high, having long bending branches. The flowers are produced in large, branching, terminal panicles. Each blossom is about an inch across, of a very bright rosy-red colour. It has bloomed beautifully in the Royal Gardens of Kew, in a medium stove temperature: it deserves a

place in every one. From its habit we think it would succeed well in a warmish greenhouse. (Figured in *Bot. Mag.*, 4553.)

PASSIFLORA MEDUSÆA.—M. Van Houtte possesses this interesting species. It is a stove-climber, of medium habit. It is an abundant bloomer, each flower being two inches across. Sepals green. The filaments (termed *the rays of the coronet*) are of a bright orange colour when they first expand, but afterwards change to a rose or lilac. A very interesting species.

PACHIRA LONGIFLORA.—This fine looking tree is of the Bombacæe order (Bombax, Silk Cotton Tree). In the Palm-house, at the Royal Gardens of Kew, it has rapidly grown twenty-five feet high, and seems likely soon to double that height. Leaves large, each being composed of from seven to eleven leaflets on one central leaf-stalk. A plant, one foot high, bloomed. The five petals were each about an inch broad and eight long, the ends reflexing very similar to some of the *Crinums*. Its very numerous stamens (being of the same class as the *St. John's Wort*), as long as the petals, standing prominently forward, of a rich red colour, produce a fine appearance. This puny plant bearing so large a flower, it is supposed the full-grown trees will be much larger. It will, in such circumstances, be a magnificent object. (Figured in *Bot. Mag.*, 4549.)

PHARBITIS LIMBATA. BORDERED MAJOR CONVULVULUS.—Messrs. Rollissons imported this very handsome species from Java. It is an annual, requiring similar treatment to the *Thunbergia alata*, &c. The flowers are as large as those of a vigorous-grown common *Convolvulus Major*, but do not spread so much at the mouth. They are of an intense violet colour, with a broad edging of pure white. It is a free-growing climber.

PHYLLOCACTUS CAULORRHIZUS. THE ROOTING-STEMMED CACTUS (Syn., *P. crenatus*).—It is a vigorous plant, formed of compressed oblong portions, and at each joint rootlets are produced. The flowers in form and size are much like those of *Cereus grandiflorus* (the night-blooming Cactus of some). The outer surface of it is yellow, and the inner white. They expand at the evening and close the following morning. In the Belgium collections.

PRIMULA CAPITATA. ROUND-HEADED MEALY PRIMROSE.—Dr. Hooker gathered seeds on one of the Himalayan hills. It has bloomed at Kew, and proves to be of the same class as our *P. furinosa*, but the blossoms are so closely and evenly set as to form a compact globe-shaped head. They are of a deep purple colour, with a yellow eye. Each blossom is about a quarter of an inch across. The flower-stem rises to a foot high. (Figured in *Bot. Mag.*, 4550.)

RHIPSALIS PACHYPTERA (Syn., *Cactus alatus*).—It is of the flat-leaved kind, hanging down, the edges deeply notched, and from each notch a flower is produced. Each blossom is about half an inch across, whitish, and are succeeded by a berry about the size and colour of a red currant, in which state it is very ornamental. It was introduced

in 1839, from Rio Janeiro by Sir Charles Lemon, and bloomed at Carclew in 1846.

VIBURNUM PPLICATUM, VAR. DILATATA. THE CRIMPED GUELDRES ROSE.—The Horticultural Society introduced this plant from China. It is a deciduous greenhouse shrub, and blooms very profusely, forming numerous heads of snowball flowers, like the common one of our shrubberies. In China it forms a bush eight or ten feet high. It is supposed to prove hardy in this country in the warmer parts. Dwarf plants in the greenhouse will be handsome objects, and well worth having a place in every one. (Figured in *Paxton's Flower Garden*, 29.)

SHOWY PLANTS IN BLOOM IN THE ROYAL GARDENS OF KEW,
DECEMBER 16.

ACHIMENES PICTA.—Fine plants are now coming into profuse bloom; such will increase in beauty through winter. They are in the stove.

GESNERIA HERBERTII.—Large plants, in fine bloom, the flowers of a bright scarlet and rich yellow colours, beautifully spotted inside. The tube is wide, and the front limb fully expanded, which shows the flower fully. Very handsome. These will bloom the entire winter, and are very ornamental; so are the vigorous specimens of *G. zebrina*. Every plant-stove or warm greenhouse should contain some of these fine winter blooming plants. *G. triflora* is pretty, the flowers are of a rich scarlet, very hairy, tube an inch and a half long. The blossoms are produced in threes, at the joints. *G. Seemanni*, a plant of this beautiful species, had a spike in bloom four feet long, and had a profusion of its fine scarlet and orange-coloured blossoms.

BEGONIA FUCHSIOIDES.—Some large specimens were in fine bloom, and their rich red drooping flowers were beautifully interesting. It is a fine plant for this season of the year.

In the Greenhouse.

ERICA FLORIBUNDA.—The flowers are globular, small, white with a tinge of pink, and the anthers are black, giving the flowers an appearance of a black spot at the centre of a white blossom. Very interesting, and blooms most profusely.

ERICA BLANDA.—Tube one inch long, white, and pink tinge. Very pretty.

ERICA COLORANS.—White, neat, and blooms freely.

SELAGO GILLII.—The flowers are small, but borne profusely in very long spikes, of a neat rosy-lilac colour. It has a pretty effect in the greenhouse collection.

IBERIS SEMPERFLORENS.—This ever-blooming Candy tuft is a neat shrub, nearly a yard high, and a free-flowering plant. The fine heads

of snow-white flowers form a nice contrast to the green foliage of others.

EPACRIS ALBIDA COMPACTA.—Flowers nearly an inch long, bell-shaped, pure white. Very pretty.

CORREA STOCKWELLIANA.—Flowers an inch and a half long, bright red, profuse bloomer. *C. speciosa*, *C. speciosa grandiflora*, *C. alba*, *C. rosea*, and *C. tricolor* were commencing their floral display. Their beautiful tube-shaped flowers, with pretty contrasting colours, and borne copiously, render them most charming objects in the greenhouse throughout winter and spring. Every greenhouse should have some of the best in it.

BUDDLEA MADAGASCARDIENSIS.—In the stove; a neat plant, producing a profusion of bright orange-coloured flowers, borne in long spikes, which are highly ornamental. The foliage and branches are nearly white: the contrast is strikingly pretty. It is well worth growing.

PLUMBAGO ROSEA.—This is a charming winter-blooming stove plant; its fine spikes of bright rose-coloured flowers are very pretty. It well merits a place in every one.

CORONILLA GLAUCA and *C. GLAUCA-VARIEGATA* are profuse bloomers: their numerous heads of bright yellow, pea-formed flowers are very pretty. Every greenhouse should contain them.

LUCULIA GRATISSIMA.—This is one of the most charming flowering plants of the season. Large or small ones will readily bloom, and their fine heads of fragrant flowers, of a neat fresh pink colour, are very pretty. It is well worth growing.

LIST OF THIRTY-SIX EXTRA SUPERB RANUNCULUSES.

BY AN EXTENSIVE GROWER AND EXHIBITOR.

THE following descriptive list of superb Ranunculuses has been forwarded to us, by request, from a correspondent who is fully acquainted with this lovely tribe of flowers, and on whose judgment we can rely. We are certain it will be a useful guide to any of our readers who may wish to improve a collection, or now commencing the culture of this universally admired flower. And, as this is the appropriate season for completing and arranging the stock preparatory to planting in February, we trust it will be of present service:—

- Acme* (Waterstone's), white, red-spotted.
- Badia* (Tyso's), yellow, red-edged.
- Beauty of Suffolk* (Bass's), white, rose-edged.
- Berinus*, yellow, brown-spotted.
- Boz* (Tyso's), cream, crimson-edged.
- Countess of Eglinton* (Wylie's), white.
- Clement* (Tyso's), yellow, red-spotted.
- Dr. Channing*, white, purple-edged.
- Director* (Tyso's), yellow, red-edged.

- Earl Grey* (Finlaison's), white, red-spotted.
Emily (Lightbody's), white, rose-edged.
Exhibitor (Tyso's), yellow, crimson-spotted.
Festus (Tyso's), yellow, red-spotted.
Gomer, yellow, red-edged.
Jane (Airzee's), white, crimson-edged.
Jubilee (Tyso's), sulphur, rosy-mottled.
Hamlet (Tyso's), yellow, brown-spotted.
Herald, white, crimson-edged.
Larne, white, purple-edged.
Mrs. Neilson (Neilson's), cream, carmine-edged.
Nonsuch (Aust's), white, purple-edged.
Odoucer (Boyd's), cream, purple-edged.
Prince Albert (Wylie's), white, purple-spotted.
Poliander (Tyso's), yellow, red-spotted.
Sabina (Costar's), self-yellow.
Sir R. Sale, white, purple-spotted.
Salome (Tyso's), cream, crimson-edged.
Solfanaria, yellow-spotted.
Suaviter (Tyso's), yellow, brown-edged.
Thomas Hood (Lightbody's), white, purple-edged.
Tippoo Saib, dark purple.
Talisman, white, purple-edged.
Urania, white, rosy-mottled.
Venturer (Tyso's), white, pink-spotted.
Victor (Tyso's), dark purplish self.
William Penn, white, purple-edged.

In previous volumes, excellent directions for successfully cultivating the *Ranunculus* are given, to which we refer our readers; but few, perhaps, being acquainted with its history, we think the following particulars relative thereto will be interesting.

The name *Ranunculus* is the diminutive of *Rana*, a frog, because some of the species grow freely in moist places frequented by these animals.

The beautiful class which are so generally cultivated in this country, and exhibited at the Floral Society's meetings, is the *R. Asiatica*, or Persian *Ranunculus*, the original species growing wild in that country as well as some other eastern ones, from whence it has been introduced to beautify our own gardens.

The Turks *cultivated* this flower at Constantinople for several ages before it was generally known in other parts of Europe. Tournefort says that the chief ornaments of the SERAGLIO GARDENS at Constantinople are *Ranunculus* flowers: the Turks call it *Tarobolus Catamarlale*, and their account of it is that a vizier, named Cara Mustapha, who delighted to contemplate the beauties of nature in solitude, first observed, amongst the herbage of the fields, this hitherto neglected flower, and wishing to inspire the then reigning sultan with a taste for plants similar to his own, he decorated the gardens of the Seraglio with this new flower, which he soon found had attracted the notice of his sovereign, upon which he caused it to be brought from all

parts of the East, where varieties could be found. But enclosed within the inaccessible walls of the Seraglio these flowers remained unseen by the rest of the world, until bribery, which surmounts the loftiest towers and breaks the strongest bolts, entered the palace of the sultan, and secured the roots of these highly-cherished plants, which soon afterwards flourished in every Court in Europe.

We are told (in France) that this fine flower was one of the fruits of the Crusades, and that St. Louis first brought it into that country. This would make its introduction into France as early as the middle of the *thirteenth* century, which was about one hundred years prior to the taking of Constantinople by the Turks.

Admitting that Louis IX. brought it from Palestine into France, there can be no doubt but that the plant was soon lost in that country from the imperfect state of gardening at that period; and we should have obtained it from thence instead of sending into the eastern parts of the world for these roots, which it is evident we did in the time of Queen Elizabeth, as Gerard tells us, in his herbal of that reign, that one kind of Ranunculus "groweth naturally in and about Constantinople, and in Asia, on the further side of the Bosphorus, from whence there hath beene brought plants at diuers times, and by diuers persons, but they haue perished by reason of the long journey and want of skill of the bringers, that haue suffered them to lie in a boxe, or such like, so long, that when we haue received them they haue beene as drie as ginger; notwithstanding, Clusius saith, he receiued a plant fresh and greene, the which a domesticall theefe stole foorth of his garden; my lord and master, the Right Honourable the Lorde Treasurer, had diuers plants sent him from thence, which were drie before they came as aforesaide. The other groweth in Alepo and Tripolis in Syria naturally, from whence we haue receiued plants for our gardens, where they flourish as in their owne countrey." This unvarnished account fixes the time of the introduction of the Ranunculus into England, and at the same time is a pretty satisfactory assurance that it was not then growing in Paris, as Clusius would not have mentioned the receipt and loss of a single root had it been common in the gardens of his country.

The Dutch, who studied floriculture as an art connected with commerce, soon turned the cultivation of the Ranunculus to a profitable account, and they still continue to export these roots in quantities to every part of Europe. But the florists of our own country have raised a far more beautiful race of them than any other nation; as witness the very numerous handsome varieties which have been raised by Messrs. Tyso, of Wallingford; Lightbody, of Falkirk, and others. The collections of the above-named florists are unrivalled, and stand pre-eminently above all others.

Our readers will know what is usually termed *The Scarlet Turban Ranunculus*, or *The African Ranunculus*, whose flowers are large, and, being of a very vivid scarlet colour, produce a brilliant display. This fine ornament of the flower-garden is not grown anything equal to its merits; like the *Asiatic* so does the *African* merit a place in every one.

The African *Ranunculus* differs from the Asiatic by having few but larger leaves, which are of a darker green than those of the latter kind. The stem seldom produces more than one flower, and never exceeds two; they are very double, and a stem is frequently thrown up from the centre of the flower, bearing a second corolla of a smaller size. This is the flower which the French name *Rénoncule Pivoine* and *R. Pône*. There are several varieties too of this kind of *Ranunculus*, amongst which is one of the colour of the Jonquil, which the French call *Séraphique d'Alger*, and another of the hue of the Golden Marigold, with a green heart, and which is named *Souci Doré*, or *Merveilleuse*, and a pure white one; also another, which is most esteemed, of a fine red colour, spotted with yellow, and which is called *Turban Doré*, Golden Turban.

PINETUMS.

As Coniferous plants, and their allies, either in selections or collections, are becoming indispensable addenda to the grounds of all lovers of the beautiful forms presented in the vegetable kingdom, it may not be an inappropriate season to discuss a few points in the arrangement of the Pinetum.

It is painful to witness, in many instances, large and valuable collections of Pines scattered about the nooks and corners of parks and pleasure-grounds, without regard to the future space which the individuals are likely to occupy, with utter disregard to appropriation of situation, and with no eye to the character ultimately to be given to the scenery of which they are to form a part. In some instances we see a fine specimen struggling in the precincts of the flower-garden, beneath the overshadowing branches of some giant Oak or other tree, which cannot, or, at least, it would be next to sacrilege to remove. The Pine, doubtlessly, had been planted there when a minute plant, with no prospective recognition of its capabilities, and now, like a "blot on the scutcheon," a constant source of regret to its owner; deformed in its habit, stunted in its energies, when it might have been a "thing of beauty," with all its attendant influences. Again, a portion of land is pointed out to you in which it is asserted that Pines are planted extensively, due space having been given to allow for the development of all their natural capabilities. In your progress to the spot several fine specimens may be seen peeping, like land-marks, above the tangled mass of brake and briars, gorse and rubbish, in which vainly you seek the smaller members of the fraternity. In another domain, portions of the park are fenced off and devoted to Pines. Here they are planted literally pell-mell, jostling each other even in their infancy. *P. Hartwegii* is smothering *P. insapo*, *macrocarpa* deforming *Lambertiana*, *Deodars* mingling their branches with *Araucarias*; in fact, the results of a liberal outlay becoming a deformity rather than a beautiful feature. A few rods from this you will probably see some "crates" protecting detached plants, which, if they have succeeded, are damaged from confined space or overtopped by nettles and rank herbage. It is but

justice to observe that such conditions are entirely to the charge of the proprietors, and not to those who have them in care.

In almost every instance Pines are planted too thick ; and this state of things is not, and, in many instances, will not be fully recognised till the individual plants have attained a magnitude that will render their trans-plantation hazardous, or totally impossible, if their future well-being is to be recognised, leaving out of the question the deformity which the remaining trees must suffer from being crowded. It is doubtless possible to group Pines with an ultimate good effect in particular scenery and localities ; but a perfect knowledge of the adult characters of each species must be known to the planter before he commences operations. But it is doubtful if such an arrangement, where picturesque effect is sought, can be carried to any great extent beyond allowing each group to be formed of one species. Such a system may be departed from by employing only the true Pines ; but the *Abies* and *Pinus*, possessing such an individuality of character, would be more suitably located in detached spots, several trees forming in the distance a group, of which each individual should form a part of a whole. With the true Pines, such as *macrocarpa*, *ponderosa*, &c., several in a mass would doubtless, in an adult state, form highly picturesque objects. Some idea of such may be formed by viewing a group of several old Scotch Firs mingling together ; nothing in the way of trees can be more attractive. I have seen a collection, in which there are some points worthy of consideration. They are arranged on either side of a rambling pathway, accessible at all seasons by being gravelled ; but the uniformity is too great in the disposition of the individual specimens, and a too great proximity will ultimately be observed and regretted.

It surely would be well for those who so liberally purchase valuable plants to have an eye when planting them to their future appearance. There is something worthy of observance in the old adage, which asserts that every man may do what he wills with his own ; but I doubt if we can wholly recognise its truth where a future generation is to participate in the results. And in the development of the newly-introduced, or newly-planted species of Pines, although it would be uncharitable as well as unjust to infer that the planters will not derive a large share of enjoyment, yet we must confess that posterity will behold their greater beauty. Witness the magnificent Cedars of Lebanon, adding a nobleness, a dignity which cannot be described, to so many of England's mansions and demesnes. In conclusion, I would intreat those who possess collections of this noble family to set about arranging them during the following planting season, now at its advent ; and to those about to form a *Pinetum*, I would say—consider, and form some suitable design before you commence.—(*Gardener's Chronicle.*)

WATER-LILIES.

BY AN ARDENT AMATEUR FLORIST.

YOUR review in the December number, of LAWSON ON WATER-LILIES, induced me to purchase that very interesting publication ; and in its

perusal on the White-flowered Water-Lily of our own country, brought to my recollection that I have seen two kinds of the White-flowering in bloom. The common one I have often seen and admired; but there is a much superior blooming kind growing in the grounds of one of the royal palaces. It is a much more noble plant, and the flowers are at least half as large again as those of the common kind. I was very much struck with its beauty; and it occurred to me, that if its flowers were impregnated by those of the Royal Victoria Lily (*Victoria Reginae*), a vast improvement would very likely be effected in the size of the flowers of the progeny which might be raised by this hybridization: at all events, I intend to make the experiment the next season. I also purpose, on the other hand, to impregnate the flowers of the Royal Water-Lily by those of the common *Yellow-flowered Water-Lily*, with a hope that a yellow flower may be obtained the size of the present noble blossom of *Victoria Reginae*.

I further intend to impregnate the common *Yellow-flowered* with the pollen of the *V. Reginae*, hoping to obtain a larger flower of this hardy one.

These attempts I am persuaded will be, to me at least, very interesting, and I fully anticipate successful results. I beg, however, the co-operation of others, that by more extended attempts to obtain flowers of our long-possessed Water-Lilies, both in doors and out doors, of a much larger size may be obtained, as well as superb varieties be raised from the impregnated seed saved from the *Victoria Reginae*. I am confident any attempts will be amply rewarded, and, I doubt not, would lead to a far more general cultivation of this highly-interesting tribe of plants. They are easy of cultivation, and where the means exist of water, &c., it is well worth every attention.

I read as follows in Mr. Lawson's book, "that a Water-Lily pond should always be furnished with a plentiful supply of clear water; and that, while a supply is constantly (or often) kept up, provision must be made that the superfluous water be regularly run off at short intervals to preserve the purity of the pond.

The kind of soil, too, is of great importance; the bottom of the pond must be formed of soft mud to a good depth, and it must be heavy enough not to be readily washed away, but by no means be of a *clayey* nature, although a clay lining may be made beneath to prevent the escape of water.

The Water-Lilies are perennials; the tuberous roots may be cased in mud, and be thrown into the water at the places the plants are to be deposited for growth, or they may be tied to a stone for the same purpose. When seeds are obtained, they may be wrapped in portions of mud and scattered at the proper places for growth. They readily grow in both instances.

It will be recollected by all who have seen the White-flowered Water-Lily in its native waters, that, however plentiful the plant may be, it never extends its foliage or its flowers within a certain distance of the dry land, ceasing to grow where the water lessens in depth. This should be borne in mind by those who attempt their growth, and the water should not be less than three feet in depth where the plant or

seed is deposited; the piece of water, too, should be fully exposed to the sun throughout the day.

PLANTS SUITABLE FOR A WINTER GARDEN.

A CORRESPONDENT in the *Gardener's Chronicle* writes, "Everybody complains of the barren and uninteresting appearance of the flower-garden in winter and early spring, and that a collection of such attractive plants as put on their gayest dresses at that season must be to all lovers of gardens a thing to hope for, and to admire when obtained."

To effect this, such plants must be grown in pots and be plunged in the beds or borders when the summer and early autumn flowers are over. The plants and shrubs to be removed in time for the summer flowers, and to be re-potted, and otherwise attended to in a reserve garden during the summer season. The following list comprises plants which are considered most suitable for the purpose. The bulbous and other dwarf herbaceous plants, of course, are to be placed near the edges of the beds, &c.

Dwarf Evergreens (Shrubby Plants).

Variegated Ivies.	Gaultheria Shallon.
Polygala Chamæbuxus.	Epigæa repens.
Erica carnea,	Juniperus tamariscifolia.
Pernettya mucronata.	———— squamata.
Daphne hybrida.	Arbutus pilosa.
———— japonica.	———— Siberica.

Taller Evergreen Shrubby Plants,

Which may be grown to suit various heights.

Andromeda floribunda.	Arbutus unedo.
Berberis fasciculata.	Ilex (variegated).
———— aquifolium.	———— latifolia, &c.
Aucuba japonica.	Quercus ilex.
Laurus nobilis.	Ruscus aculeatus.
Juniperus virginiana.	———— ramosissimus.
Thuja Warreana.	Rosmarinus officinalis fol. ar-
———— aurea.	genteis.
Vaccinium ovatum.	Ditto ditto aureus.
Taxus baccata variegata.	Rhododendron dauricum atro-
Buxus vulgaris.	virens.
Gaultheria Shallon.	Euonymus japonica.
Cotoneaster microphylla.	———— variegata.
Jasminum nudiflorum, for its early	Daphne collina.
flowers.	Cydonia japonica.

Herbaceous Plants, &c.

Alyssum saxatile variegatum.
 Helleborus viridus.
 ————— nigricans.
 Galanthus nivalis.
 Scilla verna.
 Saxifraga oppositifolia.
 Gentiana acaulis.
 ————— verna.
 Hepaticas.
 Polyanthus.
 Primulas (Primroses).
 Auriculas.

Tussilago Farfara.
 Aconitum hyemale.
 Anemone hortensis.
 ————— in varieties.
 ————— nemorosa.
 Crocus sativus.
 Hyacinths.
 Narcissi.
 Jonquils.
 Daisies.
 Cardamine pratensis flore pleno.
 Cyclamen europæum.

The following may be added, blooming during winter and early spring; and such as are deciduous may be kept in the reserve garden till the flowers appear, and then be plunged in proper places to bloom.

Shrubby Plants.

Alex europææ, double.
 Calycanthus præcox.
 Early blossomed Almond.
 Pyrus japonica.
 Rhodora canadensis.
 Daphe collina.
 ————— laureola.
 ————— cneorum.
 Andromeda calyculata.

Daphne mezereum.
 Lonicera nigra.
 Many Hollies produce a profusion of berries when grown in pots. The red, golden, &c., are highly ornamental.
 The Lauristinus.
 Azalea procumbens.
 Andromeda polifolia.

Herbaceous Plants.

Cynoglossum omphalodes.
 Erinus alpinus.
 Adonis vernalis.
 Arabis alpina.
 Pulmonaria officinalis.
 ————— virginica.
 Early Tulips.
 Scilla bifolia.
 Potentilla verna.
 ————— opaca.
 Saxifraga oppositifolia.
 ————— hypnoides.
 Cortusa Matthioli.

Fumaria solida.
 ————— cava.
 Anemone nemorosa, double.
 Draba aizoides.
 Dog's-tooth Violet.
 Fritillarias.
 Leucojum vernum.
 Ixia bulbocodium.
 Tursilago fragrans.
 Adonis vernalis.
 Violets, of sorts.
 Dentaria bulbifera.
 Soldanella alpina.

CULTURE OF THE HOLLYHOCK.

BY MR. WILLIAM CHATER.

THE Hollyhock will grow best in good old garden soil, well trenched over to the depth of two feet, with plenty of thoroughly decomposed

manure; such as old Cucumber beds, or night-soil mixed with earth. Sandy loam they like, and if the subsoil is wet they will thrive remarkably well in the summer, but in the winter wet is very injurious to them; to prevent which, I remove, to the depth of one or two inches, the mould round the neck of the plant, and fill up with white sand, about six inches round the stem, level with the surface: it is simply to preserve them from wet, insects, and slugs, from which, in the winter, they are apt to suffer very much, if not killed. They may be propagated by single eyes in July and August, also by cuttings in the spring, placed on a slight bottom heat. Young plants raised from summer cuttings are best preserved by re-potting them in October into large pots—the larger the better—in light rich sandy earth, and placed in a cold frame; thus they will grow during the winter. In March or April turn them out into the open ground, and they will bloom as fine and as early as if planted in the autumn. Plant them not less than four feet from row to row, and three feet apart in the row. If grouped in beds, not nearer than three feet each way, They will grow well in the shade of distant trees, but by no means must the roots interfere. In May, when the spikes are grown about a foot high, thin them out according to the strength of the plant; if well established and very strong, leave four spikes; if weak, two or three, or only one, at the same time placing a stake to each one separately. The most robust grower does not require a stake higher than three feet from the ground. Stake them before they get too high, and secure them well by tying, and they will grow erect. If the weather is dry at this season of the year they must be watered with a solution of guano, or any other liquid manure, poured carefully round the roots, avoiding pouring it on or too near the stems. To grow the flowers fine, cut off the lateral shoots, thin the flower buds, if crowded together, and take out the top of the spike, according to the height desired, paying attention to the usual height and habit of the plant. Observe, by topping it you may increase the size of the flower, but at the same time shorten its duration of flowering, and perhaps disfigure its appearance.

BRIEF REMARKS.

WINTER DECORATION OF THE FLOWER GARDEN.—Lest the occurrence of a number of empty beds on a lawn or in a flower garden, where the system of massing summer plants is adopted, should impart to a place a bare and desolate aspect during winter, a store of the lower kinds of Evergreens should be kept in pots, and plunged in some part of the kitchen garden, or in any reserved corner through the summer, to be transferred to the flower-beds directly their gayer furniture has been cleared away in autumn. Such a plan is less troublesome than it appears to be; for if the plants be kept constantly in pots, summer and winter, and merely be plunged in the ground, a simple re-potting once a-year, with an occasional watering in only the very driest summer weather, will be all the attention they want for three or four years, when they will require renewing by propagation. The fittest kinds for

the office will be several dwarf Heaths, particularly the *Erica carnea*, *Cotoneaster microphylla*, *Berberis aquifolium*, *Menziesia polifolia*, *Andromeda floribunda*, *Pernettya mucronata*, *Arctostaphylos uva-ursi*, *Gaultheria Shallon*, *Ledum buxifolium*, *Rhododendrons ferrugineum* and *hirsutum*, the common trailing Savin, and the varieties of the Minor Periwinkle. By a judicious choice and variation of these, putting one sort only to a bed, some amount of verdure and liveliness will be produced during winter, at a cost of labour and materials which are entirely insignificant in comparison with the effect realised. The intermixture of a few beds of variegated Ivy, or variegated Periwinkle or Savin, or even the variegated Hollies (especially the prickly), variegated Yew, and Aucuba, kept dwarf, would increase the variety. The plants should be potted in rather a poor soil, lest they grow too luxuriant, and send their roots too far beyond the pots.—*Kemp, on Small Gardens.*

HYBRIDIZING THE GLADIOLI.—Mr. Beaton states that the flowers of *Gladiolus cardinalis* being of the *best* scarlet and white, that the style of growth and colouring of this handsome species be infused into the descendants of *G. psittacinus* and *oppositiflorus*. Crossing the finest of the new Seedlings we possess with the pollen from *G. cardinalis*, and that the richest coloured ones, raised from such crosses, be impregnated again with pollen from *G. cardinalis*, and repeated upon even such a progeny till the *yellow* brought in by *G. psittacinus* be washed into a *brighter yellow*. The endeavour should be to obtain the most decided colours, and the more so of the brilliant; and at the same time to secure the *best form* and substance of petal. Each progeny will amply repay for the attention given. We shall be glad to have the suggestions of Mr. Plant as applicable to this very favourite tribe of (his) flowers.

DESCRIPTIVE CHARACTER OF THE CLASSES OF ROSES.—In the very useful observations on the Rose which have been given in this Magazine, mention is made of them under the descriptions of Gallia, Bourbon, Noisette, Boursault, Perpetual, &c. Now, I am not acquainted with the particular distinctive characters, I should, therefore, be obliged by information on the subject as early as possible, as my employer requires a number purchasing, suited to peculiar existing circumstances, and I have to make out the selected list previously.—*A Gardener.*

[All classes of Roses have indiscriminately been impregnated, and seeds so generally sown, consequently it is a most difficult task to properly classify the entire. A short time back we visited the most celebrated nursery collections, in order to obtain the distinguishing peculiarities of the classes into which Roses had been divided. We were not able to realize all we desired, but the following general peculiarities we obtained, and, we hope, they will be of use to our correspondent. We intend to obtain more particular information on the subject next season, which we will insert.—CONDUCTOR.]

Damask Roses.—This section, and the Albas, contain some of the finest light Roses, or blush Roses, grown. The true Damasks may be *generally* known by their long green shoots, leaves rather downy, and placed far apart, *rough spiny shoots and leaves*; the capsules, or seed-

vessels, are mostly *very rough* or spiny, and the flowers are very sweet.—A summer Rose.

Moss Roses.—An elegant family, a division of the section *Centifolia*, or hundred-leaved, being only a sport from it, the *moss* being the criterion.—A summer Rose.

Provence, or Cabbage Roses.—The term one hundred-leaved, of the French, does not refer to the foliage, but to the *petals* of the flowers. The flowers are all *globular* in form, and on *long* footstalks, so that they hang gracefully pendant, and are readily distinguished from all others. They are very fragrant.—A summer Rose.

Portland, or Perpetuals, and Hybrid Perpetuals.—This class is the most desirable of Roses, and all *true perpetuals have a terminal cluster of flowers*. They continue in bloom longer than any other section. They are mostly *Damasks*, or hybrids from the Damask. The fragrance of this Rose in their blossoms is apparent. The blooming in autumn, that is to say, from the beginning of August to the end of the season, renders this class very distinctive, as well as the *clusters* of flowers.—Autumnal Roses.

The *Hybrid Bourbons, or Hybrid Perpetuals*, partake of the hardiness and fragrance of the Damask Rose, blooming freely in autumn, and resemble in growth and foliage the Chinese.

White Rose, or Belgic, and their Hybrids.—This section is easily known by their *clear green shoots*, and the leaves being of a *glaucous green*, looking as if dusted over with a greyish powder. The plant has few spines.—A summer Rose.

Rosa Gallica, the French Rose.—This section contains most of our old garden Roses; they are robust and hardy, stiff, *erect* and *compact* growers. The flowers are mostly *very full*, finely formed, and contain many beautiful striped and spotted ones.—A summer Rose.

Bourbon Rose.—Of this section it is stated, that “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 Four Seasons, the only two sorts grown in the island. Monsieur Perichon, as 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 foliage and shoots; he planted it in his garden, and it proved to be quite a new Rose. This, with all the fine hybrids, form, amongst the *Indica Roses*, what the Perpetuals do amongst the *Damask*. They are free and continual bloomers, *prominent buds*, and *deep green foliage, free growers*. Some are fine as climbers.—Autumn Roses.

China Rose.—The original from China, and all true varieties have strong green luxuriant shoots. Its *ever-blooming* qualities have made it a favourite, and perhaps no plant has contributed so much to enliven our cottage walls as the common China Rose, and the *Rosa semperflorens*, or Crimson China Rose. They bloom for a long season, *some* being fragrant.

Noisette Rose.—The Noisette has been originated *between the musk and the common China, or Indica*. The perfume of the musk is very apparent, its tendency to bloom in *large clusters like the Musk*

Rose also shows its affinity, and they are produced in profusion through the summer and *autumn*. Some of them are well adapted for pillars, or training to fences and walls, as well as standards, in which mode they form fine heads of pendant branches.

Hybrid China Roses.—This section has been originated *between the China tea-scented Noisette and Bourbons, fertilized with the French, Provence, and other SUMMER ROSES, AND ALSO TO THE LATTER BEING CROSSED WITH THE FORMER*, the seeds from which produce *HYBRID CHINA ROSES*. The character of the section is *smooth shining foliage, being sub-evergreen, branches long, luxuriant, and flexible*. They give a long series of flowers, but *not a secondary one, and bloom early only*. They do well as standards, forming fine heads.

Climbing Roses. The *Ayrshire*.—It is considered that this tribe had its origin from the *Rosa arvensis*, the common Rose of the north of England and Scotch hedges, and has acquired much additional vigour from an accidental impregnation. Shoots of the single and semi-double white on some occasions grow in one season from twenty to thirty feet long.

Rosa sempervirens. The *Evergreen Rose* (Climbing).—The origin of this class is the *Climbing Wild Rose of Italy*, which has *single white flowers, and foliage nearly EVERGREEN*. The flowers are mostly *small*, not exceeding what is termed middle size; they are produced in *large clusters or corymbs*, of from ten to fifty blossoms in each. They are valuable for covering fences, walls, stems of trees, festoons, or as pillars.

The *Boursault Rose*.—This class owes its origin to the *Rosa alpina*, the *single Red Rose of the Alpine mountains*. The shoots are *long*, having *few spines*, and of a *red colour*. They grow rapid, are very hardy, and do well as climbers or pillar Roses. The flowers are produced in *immense clusters*.—A summer Rose.

Rosa Multiflora. *Many-flowered Rose*.—A native of Japan; and from the original one introduced into this country, *crossed by other kinds*, some beautiful hybrids have been obtained. In warm situations, some of the class will form pillars thirty feet in height. They belong to the *summer blooming* section.

The *Austrian Briar Rose*.—The original Rose of this class was found growing on the hills of the north of Italy. The shoots, when ripe, are of a *yellowish-brown, prickly*.

Rosa sulphurea. The *Double Yellow Rose*.—This old and fine Rose, no doubt, has been raised from the single Yellow Austrian Briar, very probably impregnated with a Damask Rose. Having the foliage-form of the first, and the flower-form of some of the latter.—A summer Rose.

The *Tea-scented Chinese Rose*.—The original plant was sent from China. The *seed vessel is large, leaves large, and shining flowers, globular*, and have the so-called *TEA FRAGRANCE*.

CAPE HEATHS.—To grow this very interesting and beautiful tribe of plants, the following particulars are essentially necessary.

Soil. A fibrous, sandy peat (heath), free from iron matter (if there its presence is readily perceived). Never have it sifted, but well

chopped and broken together, in which state it must always be used. A sprinkling of bits of charcoal are of service.

Potting. Have a liberal drainage of broken pot, upon which place bits of turfy peat. Be careful not to over-pot at a time; that is, do not have too large a pot, the roots being so very fine, in their early growth, do not require more than an inch extension at one time all round its ball. When that portion is tolerably well filled with fine roots, then re-pot in a larger one, as above stated. Never allow a plant to be what is termed *pot-bound*, as in that state they are liable to lack a proper supply of water, the foliage turns brown, unhealthy, and soon perishes. Sometimes, too, the roots are injured by drought at the sides of the pots, and perish at the ends. When this has happened, turn out the ball entire, carefully remove the outer portion of the soil, where the roots are killed, and re-pot with fresh soil. This should be done at any season when the plant requires. More particularly should the stock be looked over *previous* to their *pushing* in Spring. Let the surface of the ball be nearly *level*.

Water. Always use soft water, and about the same temperature as the air the plants are in. Each time you water give as much as will soak the entire ball of soil, and only water again when it has become nearly dry. Never allow the plant to flag. Some persons give at once as much water as will only moisten, perhaps, one-third deep of the ball, and the under portion are kept completely dry, and so die of drought. If a ball is so close with roots that the water will not sink, make a few holes into it by means of a bright small iron skewer, and this will assist its general diffusion.

Air. These plants, to flourish properly, must have a house to themselves, however small or large it is. A house must be constructed so that all the light be given to it that can be; and the plants not be far from the glass, from three feet at the sides to five at centre, of a double-roofed house. Air must be admitted at each side of the house, so that the upright sashes being opened, a *current* of wind affects to moving the shoots, that is, gives the plants a *living moving* atmosphere, on all proper occasions; avoiding, however, *cold* eastern or northern blasts. In a house properly constructed, by having the plants placed upon an even table, up the centre portion of the house, so that a walk is allowed around it, and a shelf on the same level be next the sashes, thus in passing around there are plants right and left. I say, in such a house, the plants may remain all the year; they require no out-door situation in summer. If it be desirable, in the very hottest of summer, to have the roots somewhat cooler, place a boarded frame round the table, and fill up between the pots with neat moss. The pots should be placed upon a pot-rim about an inch high; this is better than upon either a slate or stone table; they are cooler than the atmosphere, and injurious in proportion to the success of the plants. The rim supports the pot, and if three or four inches in diameter, the water out of the pot bottom passes away.



THE practical utility of our monthly Calendar has been alluded to during the past year by many of our correspondents. Our readers are aware we cannot enter fully into all the details of management of everything which demands attention during the month in the various departments of floriculture. Want of space compel us to condense all subjects, and only to introduce those particular tribes of flowers, &c., that are the most essential. We shall, however, give what is really necessary, and make those remarks more as remembrances of what is to be attended to than details of management, the latter being recorded in other parts of the Magazine.

The winter has hitherto been unusually mild ; but as *sudden* frosts often occur, it is well to have materials for immediate use, wherewith to protect *tender plants* out of doors.

IN THE FLOWER GARDEN.

Protect the heads of tender Roses, or other tender shrubs, trees, &c., by tying a number of Yew, Spruce, Fern, or similar materials, amongst and around the branches ; but whilst protection is given, do not have them so close as to prevent a due circulation of air to the shoots, &c. Roses and Hollyhocks should be planted as *soon as possible*. Newly-planted shrubs should be secured, so that they may not be moved at the roots by wind. Mulch over the roots of tender ones. Give fresh loam to flower-beds, and manure, leaf-mould, &c., if necessary. Frost paves the way to do it without damage to walks or lawn.

FLORIST'S FLOWERS.—Auriculas and Polyanthus should only be kept *just moist* (not wet), and be *just preserved* from frost. If the embryo flower be affected by frost, it is always injurious ; give air, however, on every likely occasion. Most Auricula and Polyanthus growers sow seed early this month (see Articles in former volumes as to method). Carnations, Picotees, and Pinks in pots require to have air freely, but water very sparingly. Protect them from continued excess of rain. Prepare compost for the former *now*.

Pinks and *Pansies* in beds having had a thin layer of light sod around the beds, require little more attention now than seeing that the lateral branches are secured by pegs, so as to secure them from injury by wind ; and if it comes on very severe, place a flower-pot over each, taking care to remove them on the first favourable change. Fir or Yew branches, a foot or so high, pricked round the bed, is an excellent protection from wind ; and a few stuck in among the plants is useful in severe weather. A sprinkling of soot over the bed tends to preserve the Pinks from rabbits and snails. Pansies in pots should be uncovered

in mild weather, so that they may receive the benefit of free air and gentle showers. *Ranunculuses* and *Anemones* planted last autumn may be protected from injury by frost, with garden-mats over the bed. The bed for planting in *next month* should now be turned over for the last time; pick out all worms, and give it a slight sprinkling of lime; then spread the bed evenly, and it will be consolidated by the planting period. *Choice Hyacinths* may be protected by similar means, or by placing an inverted garden-pot over each. *Dahlia* roots stored safely from frost are not necessarily secure from decay, but require examination to remove all that seem damping or shrivelling, potting them in rather dry soil, and placing them in a warm frame. The best sorts, of which a large stock is desired, will, about the latter part of the month, require potting and placing in the frame, gradually inducing them into activity. *Tulips* still require to be most carefully guarded from frost, for however hardy the nature of the bulb is, they rarely throw up perfect blooms if touched by frost. Divide and replant herbaceous perennials, &c. If autumn sowing of annuals was omitted, now sow some in small pots, place them in a frame, and turn them out in the beds early in April: such will bloom early.

IN THE FORCING STOVE.

At the end of the month sow seeds of the tender annuals, as Cockscomb, *Amaranthus*, &c., to have them fine specimens for the greenhouse in summer; and Ten-week, Russian, and Prussian Stocks, &c., to bloom early, should be sown in pots, or be sown upon a slight hot-bed; also some other of the *half-tender* kinds, to prepare them strong for early summer blooming.

The *Jacobææ* and Guernsey *Amaryllises*, with others of the genus, should be repotted; also to have a few early blooming plants of *Achimenes*, *Gloxinias*, *Gesnerias*, &c., they should be started, and when beginning to push separate and pot them singly.

Cuttings of *Salvias*, *Fuchsias*, *Heliotropes*, *Geraniums*, *Anagallis*, *Hemimeris*, *Lotus*, *Bouvardia*, &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. *Lobelias* in pots should now be pushed, in order to divide and pot singly next month. *Mignonette*, to bloom early in boxes or pots, or to turn out in the open borders, should now be sown. Sow in pans seeds of *Rhododendrons*, *Azaleas*, *Ericas*, &c.; the plants will be fit to plant off in May.

IN THE GREENHOUSE, &c.

If *Camellias* are not regularly supplied with soft, not too cold water, the buds will drop; if too much, frequently that will cause them to drop too. Thin the flower-buds if crowded. Never give heat to *Heaths* as long as the frost can be kept out by coverings or otherwise. A few degrees of frost will never injure *Cape Heaths*, whereas fires are their ruin. Let the air *blow* upon them on all favourable occasions, as nothing destroys the constitution of these plants so much as close and damp houses: so with the entire class of *New Holland* plants. Should any choice varieties of *Azalea indica* be required for the purpose of propagation by cuttings, they may be transferred to a tempera-

ture sufficiently high to excite an early growth. Cuttings of these will be found to root with much greater facility early in the season than at a later period; besides, it is of considerable advantage to have young plants strong and well established by the approach of the succeeding winter. Gladioli, *Alstrœmeria*, *Lilium*, &c., grown in pots at the end of the month, should be re-potted. When the weather is damp or foggy do not give air, only let a dry air be admitted. Tender and small kinds of plants should frequently be examined to have the surface soil *loosened*. *Calceolarias*—re-pot seedlings, strike cuttings, &c.

Chrysanthemums having now quite ceased blooming, the plants must be placed in a cool pit where they can be protected from severe frost, and have the tops cut off. *Fuchsias* which have been at rest and increase is wanted; now force them into shoots to strike from.

IN THE STOVE.

All kinds of plants required here for ornament, and which have been duly prepared by previous culture, should be introduced in succession, giving ample supplies of water and frequent syringing over head. The plants best adapted for forcing are various kinds of *Roses*, *Persian Lilacs*, *Azaleas*, *Acacia armata*, *Neriums*, *Gardenias*, *Rhodora*, *Heliotropes*, *Correas*, *Deutzæas*, *Mezereums*, *Coronillas*, *Cytissus*, *Ribes*, *Mignonette*, *Cinerarias*, *Sweet Violets*, *Lily of the Valley*, *Tulips*, *Cyclamens*; and the old *Eranthemum pulchellum* with its fine blue flowers, *Justicia speciosa*, *Gesneriæ Zebrina*, &c., *Justicia pulcherrima*, and *Aphelandria cristata*, are fine winter ornamental blooming plants. All pots or boxes containing bulbous-rooted flowering plants, as *Hyacinths*, *Narcissus*, *Persian Irises*, *Crocuses*, &c., should occasionally be introduced, so as to have a succession of bloom. *Cactus* plants that have been kept in the greenhouse should occasionally be brought into the stove for flowering.

ON PINKS.

BY A. Z.

IN a compost of the following materials, I have grown the Pink very far superior to any I ever saw in any florist's garden, or at any floral exhibition, and both situations I have visited scores of times during the period of the last seven years. Turf, about three inches thick, from a pasture of loamy soil, procured, and laid up in a heap one year before required for the bed. One year old rotten hot bed manure. Decayed leaves, vegetables, sticks, and the ashes of burnt faggots, any of these, mixed together, or simply, and a portion of pebbly river sand. The three former materials in equal parts, and one-tenth of sand. Over the bottom of the space for the bed I laid four inches thickness of old rotted cow-dung, and upon it the above named compost nine inches deep.



Diptoracanthus spectabilis.



FLORICULTURAL CABINET

FEBRUARY, 1851.

ILLUSTRATIONS.

DIPTERACANTHUS SPECTABILIS.—THE HANDSOME FLOWERED.

THIS very showy flowering plant has been introduced by Messrs. Veitch; their collector discovered it on the Andes mountains of Peru. It has bloomed in their establishment at Exeter.

It is what is termed a soft-wooded plant (similar to the *Ruellias*), grows two feet, or more, high, much branched, and blooms very profusely. We find it flourishes in a warm greenhouse, growing very freely, and blooming all the summer; and, by having a few of them, re-potting at various seasons, it can be had in bloom nearly all the year, and will be found a very ornamental plant. To bloom it well in winter, it requires to have an intermediate stove temperature. It is readily increased by cuttings, and merits a place in every establishment of exotic plants.

NOTES ON NEW OR RARE PLANTS.

ASTER SIKKIMENSES. SIKKIM MICHAELMAS DAISY.—Dr. Hooker collected seeds on the Alpine mountains of Sikkim. It is a half-shrubby plant, erect, growing three or four feet high. It is a free bloomer, and the flowers are produced in large corymbose heads, of a pretty purple colour. It has bloomed in the open ground the last autumn, in the Royal Gardens of Kew. In this situation the plant appears to assume the character of a hardy perennial; but if grown in the greenhouse, or under similar protection, it retains its half-shrubby habit. It is a pretty addition to a valuable tribe of autumnal flowers. (Figured in *Bot. Mag.*, 4557.)

CALCEOLARIA CUNEIFORMIS.—It is a pretty greenhouse summer species, producing its pale lemon-coloured flowers throughout autumn

and winter, on which account it is valuable. Introduced from South America by the Horticultural Society.

CAMPANULA COLORATA. DEEP COLOURED.—Dr. Hooker also collected seeds of this neat flowering species in Sikkim-Himalaya, at an elevation of ten thousand feet above the level of the sea. It is a spreading *perennial* plant, the stems from one to two feet long; it is *much branched*. The flowers are terminal, borne singly, both on the end shoots and the side ones. Each flower is of a regular bell-shape, about three parts of an inch long, and as much across the five parted mouth, of a bright deep purple colour. It is a very neat species, and bloomed in the Royal Gardens of Kew the last summer and autumn. (Figured in *Bot. Mag.*, 4555.)

CONSOLIDA ACONITII (Syn. *Delphinium Aconitii*).—A weak erect annual, half a yard high; flowers about an inch across, single, of a deep blue-lavender colour. Interesting and pretty.

DAPHNE HOUTTEANA. THE PURPLE-LEAVED MEZEREUM.—An old plant in this country, but very rare. The leaves are of a deep purple colour, and the flowers of a violet-lilac colour. The flowers of the common *Mezereum* appear before the foliage, but this has its leaves and flowers at the same time. It is quite hardy, and merits a place in every shrubbery. It is figured in *Van Houtte's Flora*.

DIDYMOCARPUS CRINITA. THE HAIRY.—Messrs. Veitch's collector discovered it at Singapore; it has bloomed in their establishment at Exeter, in the stove. The plant is half-shrubby, erect, about nine inches high, large leaves, of a rich coppery-green, with a velvet hue, above; but beneath, of a rich purple-red. It is a lovely dwarf plant, its beauty rather depending on the rich coloured leaves than on the flowers. Each flower is narrowish, funnel-shaped, bellying below the broad spreading five-lobed limb (mouth). The tube is an inch and a half long, and about half that across the limb (similar to some of the *Pentstemons*). The limb is white, tube yellow. (Figured in *Bot. Mag.*, 4554.)

ECHINOCACTUS VISNAGA. THE TOOTH-PICK, OR MONSTER CACTUS.—This magnificent plant has bloomed in the fine collection of the Royal Gardens of Kew. The flowers appear in numbers from among the woolly mass at the top of the plant. When fully open they are nearly four inches across, yellow. Many of our readers have seen these extraordinary large Cactuses in the Royal Gardens of Kew; and some, the very remarkable one which in 1846 was nine feet high, and nine feet and a-half in girth, and weight a ton. At that time it was in vigorous health, but soon exhibited symptoms of internal injury, and the inside became a putrid mass, and the entire perished. Other lesser plants were already and are still in the collection, and one has bloomed, its weight being 713 lbs.; height four feet six inches, and girth eight feet seven inches. It has forty-four ribs. These plants were procured from Mexico, and presented to the Royal Gardens by Frederick Staines, Esq. (Figured in *Bot. Mag.*, 4559.)

GYNERIUM ARGENTEUM; (or, **ARUNDO DIOICA**, or **A. SELLOANA**). The Pampas Grass of South America, where it inhabits the vast plains, and is said to grow ten yards high, and bear panicles of silky, silvery-white flowers two feet or more long. It is a tall perennial plant in our own country, and its fine plumes of flowers, borne by such a noble plant, renders it highly interesting and ornamental. It was introduced from South America by Mr. Moore, curator of the Botanic Garden, Dublin. The plant appears to be hardy in this country, flourishing in the garden of Robert Hutton, Esq., of Putney Park, near London. It is also in the Chiswick garden.

HYDROMESTUS MACULATUS.—A stove plant, from Mexico. It is an under-shrub, of the *Acanthacæa* order; it blooms freely; even plants a foot high have flowered in the stove at the Royal Gardens of Kew. The flowers are produced in large terminal spikes, yellow, narrow tube, an inch long, and the limb spreading an inch across. The heads of flowers are in form and size like those of *Justicia flavescens*. (Figured in *Bot. Mag.*, 4556.)

JONESIA ASOCA.—Found growing in gardens about Calcutta, where it forms a very handsome middle-sized branching tree. It is consecrated by the Brahmins; they plant it near their temples. The leaves are six inches long, lance-shaped. The flowers are produced in terminal corymbs, diversified with tints of orange, scarlet, and yellow. The head of flowers is about three inches across, and each blossom tube near an inch long, with a four-lobed limb three quarters of an inch across. (Figured in *Paxton's Flower Garden*, 32.)

LONICERA TARTARICA, var. **PUNICEA**.—Many of our readers know the Tartarian Honeysuckle; this is like it in appearance, except the flowers being larger and of a deep rose-colour. It was introduced into this country by the Horticultural Society, and is a native of Siberia.

MYRTUS ORBICULATA.—Obtained from the Mauritius; sent to the Royal Gardens of Kew in 1824. It is a bushy shrub, six feet high, and blooms profusely in autumn in the stove; its Myrtle-like flowers, of a yellowish-white, are very pretty, and shed a delightful fragrance. (Figured in *Bot. Mag.*, 4558.)

ONCIDIUM VARIEGATUM.—A pretty Orchid from Havannah, introduced by Sir Charles Lemon, Bart. The branching panicle of flowers is eighteen inches high; they are pink, richly stained with cinnamon-red. Each blossom an inch across. (Figured in *Paxton's Flower Garden*, 33.)

PÆONIA MOUTAN, **ATROSANGUINEA**.—This is the finest of the number which were introduced from China by the Horticultural Society. It is of vigorous growth; leaves tinged with red; flowers very large (six inches across), and very double, with deep blood-coloured petals, which are nearly as broad in the centre of the flower as at the edge. (Figured in *Paxton's Flower Garden*, 31.)

PORTLANDIA PLATANTHA.—A very beautiful flowering stove-shrub, growing about half a yard high. The flowers are white, broad, funnel-

bell-shaped, tube an inch long, and the five large-lobed limb is nearly four inches across. Messrs. Lucombe, Pince, and Co., of Exeter, possess this charming species, which deserves a place in every stove.

VERBENA TRIFIDA.—A dwarf perennial herbaceous plant, a native of the temperate parts of America. It grows a foot high; the flowers white, and diffuses a delicious fragrance. It possesses little beauty, but its sweet perfume is delightful. It will enable us to obtain an hybrid race with beautiful flowers possessing these fragrant qualities. It is in the collection at Sion House gardens.

THE VERBENA OFFICINALIS, OR VERVAIN.

EVERY reader of this Magazine not only knows, but admires the lovely Verbenas which add so much to the beauty and ornament of our flower gardens of the present day. It is not, however, generally known that the VERBENA was held in high estimation and venerated by the ancients of our own and other countries. The very name of the *Vervain* carries our thoughts back to the darkest ages of superstition, and to the religious customs of the ancient Heathens; and although they were in almost all particulars ridiculously absurd, yet their antiquity and intimate connexion with our own forefathers, invests it with a claim upon our particular attention. Whilst it was held in *reverential regard* by them, and we so much admire the beauties of the improved race we possess, we are taught the lesson, that it becomes us to feel grateful that we live in a brighter day, illumined by the mild rays of a *vital Christianity*.

The derivation of the name VERBENA is somewhat uncertain; it originally signified any herb used to decorate ALTARS for religious purposes; and this being so universally employed, received the appellation of THE VERBENA.

The Vervain sustained a considerable part in the impositions which were practised upon the credulous in ancient times, and hence it is so frequently mentioned in profane history. The Magi (termed Wise Men) of the ancient Elamites or Persians, made great use of this plant in their worship or adoration of the sun, always carrying branches of it in their hands when they approached the altar. The magicians also employed the Vervain in their pretended divinations, and affirmed that, by smearing the body over with the juice of this plant, the person would obtain whatever he set his heart upon, and be enabled to reconcile the most inveterate enemies, make friends with whom he pleased, gain the affections and cure the diseases of whom he listed. When they cut this plant it was always done when neither the sun or moon was visible, and they poured honey and honeycomb on the earth as an atonement for robbing it of so precious an herb.

The Greeks called it THE SACRED HERB, Juno's tears, and Dove-wort; and it was with this plant only that they cleansed the festival table of Jupiter before any great solemnity took place, and hence, according to Pliny, the name of Verbena is derived. It was also one of

the plants which was dedicated to the Goddess of Beauty. Venus the victorious wore a crown of Myrtle interwoven with Verbena.

The Romans continued the use of this plant in their sacred rites, sweeping their temples and cleansing their altars with it, and sprinkling holy water with the branches. They also hallowed or purified their houses with it to keep off evil spirits. Their ambassadors or heralds at arms, wore crowns of it when they went to denounce war or give defiance to their enemies; and which is thus noticed by Drayton:—

“ A wreath of Verbene heralds wear,
Amongst our garlands named,
Being sent that dreadful news to bear,
Offensive war proclaimed.”

Virgil mentions it as one of the charms then in use:—

“ Bring running water, bind those altars round
With fillets, and with Vervain strew the ground.”

The Druids, both in Gaul and in Britain, regarded the Vervain with the same veneration which they bestowed on the Mistletoe, and like the Magi of the East, they offered sacrifices to the earth before they cut this plant in the spring, which was a ceremony of great pomp. Pliny tells us that the Druids made use of it in casting lots, and in drawing omens, and in other pretended magical arts:—

“ Dark superstition’s whisper dread
Debarr’d the spot to vulgar tread;
‘ For there,’ she said ‘ did fays resort,
And satyrs hold their sylvan court,
By moonlight tread their mystic maze,
And blast the rash beholder’s gaze.’”

Walter Scott.

The Druids held their power through the superstition of the people, and as they were great pretenders to magic and divination, they excited the admiration, and took advantage of the ignorance and credulity of mankind; for by these arts they pretended to work miracles and to exhibit astonishing appearances in nature, as well as to penetrate into the counsels of heaven.

Divested of these pretended powers, there is no doubt but that the Druids were better acquainted with the medicinal properties of herbs than any other class of men in their day, since, their residences being in the recesses of mountains, groves, and woods, where vegetable productions were constantly courting their attention, it is natural to suppose that they would in some measure become acquainted with the qualities of plants in general. That the Druids of Gaul and Britain applied themselves to this study, and made great use of herbs for medical purposes, we have sufficient evidence, since we learn from scattered hints in Pliny’s Natural History, that they sometimes extracted the juice of herbs and plants, by bruising and steeping them in cold water, and sometimes by infusion in wine; that they made potions and decoctions by boiling them in water; and we learn also

that they frequently dried certain herbs before infusing them, and that they administered some plants by fumigations, and practised the art of making salves and ointments of vegetables, for which they had great renown even at Rome, to which city they exported the Vervain, and it was hence called Britannica.

Although so many ages have passed away since the Druids and their pretended spells have been abolished, yet we frequently meet with lingering sparks of their imagined light among the vulgar, who upon every occasion cling to superstition.

Madame de Latour tells us that the shepherds in the northern provinces of France, still continue to gather the Vervain under different faces of the moon, using certain mysterious ejaculations known only to themselves, whilst in the act of collecting this herb, by whose assistance they attempt to cure not only their fellow-servants, but their masters also, of various complaints, and they profess to charm both the flocks and the rural belles with this plant.

The Germans to this day present a hat of Vervain to the new-married bride, as if to put her under the protection of Venus victorious, which is evidently the remains of ancient customs.

Vervain is now very properly made the emblem of superstition.

PROPAGATION OF THE MOUTAN PÆONY IN CHINA.

“ IN the beginning of October, large quantities of the roots of an herbaceous Pæony (a variety with small single flowers) are seen heaped up in sheds and other outhouses, and intended to be used as stocks for the Moutan. The bundle of tubers which forms the root of an herbaceous Pæony is pulled to pieces, and each of the finger-like-rootlets form a stock upon which the Moutan is destined to be grafted. Having thrown a large number of these rootlets upon the potting-bench, the scions are to be brought from the plants which it is desirable to increase. Each scion used is not more than an inch and a-half or two inches in length, and is the point of a shoot formed during the bygone summer. Its base is cut in the form of a wedge, and inserted in the crown of the finger-like tuber just noticed; this is tied up or clayed round in the usual way, and the operation is completed. When a large number of plants has been prepared in this manner they are taken to the nursery, where they are planted in rows about a foot and a half apart, and the same distance between the rows. In planting, the bud or point of the scion is the only part which is left above the ground; the point between the stock and the scion, where the union is destined to take place, is always buried beneath the surface. Kempfer states that the Chinese propagate the Moutan by budding; but this must have been a mistake, as budding is never practised in the country, and is not understood. He was probably deceived by the small portion of scion which is employed, and which generally has only a single bud at the apex.

“ Many thousands of plants are grafted in this manner every *Autumn*, and the few vacant spaces which one sees in the rows, attest

the success which attends the system ; indeed, it is rare that a graft fails to grow. In about a fortnight the union between the root and the scion is complete, and in the following spring the plants are well established and strong. They frequently bloom the first Spring, and are rarely later than the second, when they are dug up and taken to the markets for sale in the manner I have described. When each has only one stem and one flower bud, it is of more value in the eyes of the Shanghae nurserymen than when it becomes larger. In this state it is more saleable ; it produces a larger flower, and it is easily dug up and carried to the market. I could always buy large plants at a cheaper rate than small ones, owing to these circumstances.

“ In the garden of the Mandarins it is not usual to meet with the tree Pæony of great size. There was one plant near Shanghae which produced between three and four hundred blooms every year. The proprietor of it was as careful of it, as the Tulip fancier is of his bed of Tulips. When in bloom it was carefully shaded from the bright rays of the sun by a canvass awning, and a seat was placed in front, on which the visitor could sit down and enjoy the sight of its gorgeous flowers.”
(Fortune, in Paxton's Flower Garden.)

THE PROSPECT OF FLORICULTURE.

BY MR. GEORGE GLENNY.

THOSE who have had the curiosity to look into the history of this pleasing science will have learned that, although one of the principal means of improvement, and the pursuit to which we owe the most important feature on English Gardening, it began among the humble classes, and has gradually worked its way upwards, without the aid of professional gardeners, who have in many instances been obliged to learn it, and practise it, for its own merits. There is no more credit, in a scientific point of view, due to the man who changed the Crab into an Apple of superior kind, than to the cultivator who converted the Briar to a Rose, or the “ Bear's-ear ” to an Auricula. For aught we know, nature, unaided by anything but high cultivation, may have originated the first grand deviation from the simplicity of her wild flowers and fruits ; but from time to time almost immemorial, florists have gone on producing from seed the finest specimens of flowers, which until lately were not recognized or appreciated by the higher classes of society, in the same way that improvements in fruit were recognized and appreciated by the mass ; simply because flowers gratified taste which was not universal, while fruit satisfied the animal appetite, which reigned paramount everywhere. The common flowers were grown in the most noble establishments, where the improved varieties were rarely seen ; and it is only of late years that the perseverance and the success of the florist has given rise to the emulation among plantmen, and hybridizing, as it has been commonly, though improperly called, has become one of the most general features in horticulture as well as floriculture ; nay, gentlemen's gardeners, who used to treat the humble florist with sovereign contempt, and laugh at his enthusiasm,

are rapidly becoming acquainted with a branch of gardening to which they were formerly strangers, and many have become practical florists. The properties which constitute a good flower have become more generally known; and the very fact of a man being able to try the merit of anything he raises by an unerring test, has induced many to sow seeds, and raise new varieties. The work of a gentleman's gardener requires a man of steady habits and sound judgment; but besides these essentials a florist must be a man of *taste*; and those who, beyond the mere requisites for a gardener of the old school, happened to possess a taste for the superior flowers have now, and have had for some time, ample opportunities of increasing it; for the nobility and gentry are no longer content with the plants and flowers that once reigned superior in every first-rate establishment. Gardeners are now imitating the humble classes of amateur-florists, to whom we owe the great improvements in flowers. How few of the noble varieties of Carnations and Picotees can be traced to professional gardeners; even of those which bear the name of professional nurserymen and dealers, not one in ten belonged to them, till they were purchased of some less pretending but more useful cultivators; they are but seen beginning to do what has hitherto been done for them in raising seedlings. We know there are florists in the trade who have raised many valuable flowers, but the chief of them confirm our statement, for they were not brought up florists by profession, but have raised themselves into eminence as dealers, by their success as raisers of florist's flowers.

The hybridizing of plants, condemned by botanists, because it, as they alleged, destroyed botanical distinctions, and rendered the originals mere weeds in comparison with the improvements produced, is only an imitation of what florists have been doing for centuries; it is simply the progress of floriculture which aims at improvement, and is rapidly spreading throughout all the ranks of professional and amateur gardeners. It is seldom that the raiser of a new and good thing gets the credit, or the proper advantages of producing novelty. He parts with it to some nurseryman or dealer for whatever he can get, and forthwith the buyer has all the credit, and nearly all the profit of its production. True it is that dealers also now raise flowers, but for one good one they raise, they buy and adopt of other people a dozen. The stamp of a good flower has now become familiar, the properties are read and understood by everybody who takes a delight in floriculture, and it will lead ultimately to better prices for the raisers. The only drawback to universal improvement is "stand-showing," because middling varieties, easily grown and tolerably certain, are produced to the disparagement of stands, and prevent uniformity of quality, and yet "stand-showing" is inevitable where general shows are held for the admission of the public, because size and quantity are, and always will be, held to be necessary. What chance would some of the coarse gaudy kinds of anything stand against superior models, in class-showing? Yet when twelve are shown together, the coarse ones perhaps outnumber the best in every stand, and the same great rough blooms prevailing in all, more or less, the individual merit of certain flowers, is totally lost. Dahlias will, if we have three or four years like the last

two, become frightfully degenerated, unless the downward progress be arrested by class-showing, and the best models allowed to win. Pansies improve, but how few come up to the standard of the best! how necessary has class-showing become, on this beautiful flower! What can be so useful in driving inferior varieties from cultivation? Pinks, Carnations, and Picotees, sadly require weeding; and the same may be said of almost every other flower and plant having made a respectable approach towards perfection. Class-showing, if universally adopted, would in a short time lead to wholesale banishment of inferior varieties, and the general cultivation of the best models.

REMINISCENCES OF GARDENS IN THE YEAR 1850.

BY RISCEMARA.

EARLY in last year it was my lot to visit the Botanical Gardens at Bury St. Edmunds, Suffolk, which is entered by an ancient and lofty arch, formerly the gateway to the abbey; it is bounded on one side by a high wall, and interspersed with various ruins. At the inclement period of my inspecting these interesting localities, my effort to do so was repaid by the numerous plants of the Cactus tribe, which are there cultivated under glass, with marked success. Bone-dust, mixed with the usual soil, had been found to answer well for this curious tribe. Against the ancient wall attempts were making to acclimatize many exotics; and, if successfully, some account of the kinds, and the processes used, would afford useful information to the numerous readers of this valuable periodical.

The gardens visible from railway trains are in many parts very attractive, and relieve the monotony of the transit to the travellers and to those who are stationary; the amusement of attending them must be a solace to the mind and invigorating to the health. The "cuttings" in the Eastern Counties Railway present frequently a gay appearance in spring, when the Furze, Yellow Broom, blue Hyacinth, Primroses, &c. greet our vision as we pass rapidly by. In the beginning of summer the garden at Wisbech, alluded to last year, had, amongst other attractions, a number of the beautiful and still rare *Martynia Fragrans* and *Proboscidea*, forming a long line near the gravel-walk in front of the greenhouse and vinery; the leaves were vigorous and the flowers abundant. The gardener had raised from seed a large pink *Verbena*, its trusses and flowers resembling in size a luxuriant *Cowslip*: the *Musa Coccinea* was showing its incipient crimson blossoms in the conservatory; and on the lawn the *Spiræa Lindleyana* exhibited its snowy pendant blossoms in great beauty. In the autumn, in the grounds of a gentleman near Halstead, I saw the *Araucaria excelsa*, or Norfolk Island Pine, sheltered in a grove; it had been removed from Glazenwood, and had stood out one winter. I supposed it to be about twelve feet high, and its effect, surrounded by English forest trees, was remarkable. A bank lined partially with trunks and picturesque branches of trees, upon which many rare Ferns were flourishing, was an appropriate boundary on one side of the walk leading

through a superb collection of Rhododendrons, &c. to this grove; one of the Ferns particularly attracted my admiration; I was told it was the *Cambricum*, and should like to know more of its habits and localities. Near the mansion a numerous collection of the tea-scented China Roses were in flower; their richness, variety of colour, and delightful fragrance, made me surprised they are not more cultivated; they were considered able to bear one winter out of doors: in the conservatory the *Ixora coccinea* reared its showy head of blossoms. From this pleasant vicinity we were soon in North Wales; and at the little bathing place of Towyn, in the grounds of the Corbett family, is (according to a guide-book) the largest evergreen-oak in Britain; we should have visited it had we known whilst there; I merely record the circumstance to elicit information. The beauty of the rocky scenery near the road-side was greatly enriched by the contrast afforded by the orange-coloured blossoms of the *Ulex nanus* (dwarf Whin) interspersed with purple Heaths, graceful Ferns, pink Catchfly, &c.—an effect which might be successfully imitated in ornamental rock-work. At Tan-y-bwlch Hall, the immense Rhododendrons had a striking appearance in their elevated region, which commands the vale of Festiniog to Harlech Castle: a white *Salvia patens* was greeted as a novelty in that romantic garden on the mountain's side. At Beddgelert, as we walked through the grounds belonging to the hotel on our way to Gelert's grave, a *Camellia* was growing in perfect health, with dark-green leaves; it was a bush about five feet high, of a handsome form and redundant foliage, and had stood there at least during one winter; at its base a *Cyclamen* was in full flower. Whilst walking on a terrace at Caernarvon, elevated far above the river, in sight of the ancient castle, on our way to explore the site of Segontium, we were attracted by a Passion flower, covered with *ripe fruit* of a bright red colour; the tree had been trained up the front of the house, and the effect was singularly beautiful. (What species was it?)

At Chester, a seedsman very kindly indulged my curiosity by allowing me to inspect some bunches of small scarlet berries which were in his window; he told me they were from the scarlet Elder, and had been sent to him. If produced abundantly the tree must be an ornamental one in the autumn, and deserves to be more known. In the garden of a gentleman near Bradford, in Yorkshire, noted for its fine collection of Roses, &c., I was surprised to see amongst many Ferns, the *Ruta Muraria*, which I have four times vainly attempted to grow by endeavouring to imitate its native localities, flourishing on the ground near the delicate *Allosurus crispus*. A specimen of the double *Calluna vulgaris* was shown to me; it is extremely elegant, and bears minute examination. In another gentleman's grounds a number of self-sown Rhododendrons were springing up beneath the parent shrubs; the gardener had selected some, of which he had formed an entire bed, and will no doubt feel much interest in watching their progress. Several meadows near East Retford were very gay with the wild autumnal Crocus. Arrived at home, the delicate blue flowers of the *Ceanothus azurea hybrida*, greeted our eyes; also numerous *Cinerarias*, which had been planted out after blooming, as recommended in the

FLORICULTURAL CABINET, and, being again in flower, rendered the American bed gay at a late period of the year. I am sorry to record that I perceived on the fourth day of the new year the flowering bunches on our common laurels were about one inch in length, and therefore liable to injury, should the present mild winter be concluded by frosty weather.

NEW AND FIRST-RATE PELARGONIUMS.

BY ORION.

SEVERAL articles under the above title have lately appeared in your contemporary, the *Florist*, with the signature of "ORION" appended (my assumed name), in which I have endeavoured "to do the State some service;" but it seems something has been written which does not please certain parties living a few miles west of the metropolis. The *Editor* in the November Number requested me to procure for him tables showing the relative popularity of various Pelargoniums, although I asked either himself or Mr. Edwards to do so. At some cost and much trouble, I made application to the most celebrated cultivators, and eighteen gentlemen courteously replied, favouring me with their individual opinions, from the summary of which I drew up the returns as requested, and forwarded them to the Editor of the *Florist*, for insertion in the January number. You may guess the surprise and indignation I felt on looking over the pages of that number, to find the article I sent altogether omitted, and a notice to "ORION" on the cover, stating, the lists could not be printed because I had not supplied my name confidentially; and this, after inserting several previous articles signed ORION, and actually requesting me to procure the desired returns. The notice concluded, "You cannot conceive the fuss it has made." It is quite evident that the withholding my real name then, could not produce it; but I suppose the number and position of the varieties of Pelargoniums raised by other persons than those of the party connected with the Magazine, are so placed by the contributors, as given in the returns, that their insertion would be an obstacle to self-interested indulgence, and the fuss was occasioned by the integrity of the individuals in their selections. I trust their example will on all occasions be followed.

Having introduced myself into your pages, and explained the "why and wherefore of my appearance," I will now endeavour to give you the information the *Florist*, in its integrity of principle, rejected from its pages. Premising that a return was sent to the *Florist*, and afterwards copied into your Journal (at page 316), of the Pelargoniums seen oftencst at the London exhibitions, the following list is drawn up from the opinions of the principal exhibitors there; and these names, so well known to your readers, are among the number: Mr. Dobson, gardener to Mr. Beck, editor of the *Florist*; Mr. Black, gardener to E. Foster, Esq., Clewer; Mr. Bragg, Slough; Mr. Turner, Slough; Mr. Moseley, Edgware-road; Messrs. Henderson and Co., of Wellington Nursery; Major Foquet, the raiser of the most popular flower

“Magnificent;” Mr. Hoyle, Reading, of great notoriety; Messrs. Veitch, of Exeter; and several other cultivators, whose names are not so often before the Floricultural public. The summary of the whole returns place the following as the “state of the poll:”—

TWELVE PELARGONIUMS, MOST PERFECT FOR BLOOM.

Crusader (Hoyle's) received	. . .	10 votes.
Emily (Beck's)	. . .	9 ,,
Gipsy Bride (Foster's)	. . .	8 ,,
Constance (Foster's)	. . .	6 ,,
Magnificent (Foquet's)	. . .	6 ,,
Delicatissima (Beck's)	. . .	6 ,,
Brilliant (Topping's)	. . .	6 ,,
Gulielma (Beck's)	. . .	6 ,,
Virgin Queen (Arnold's)	. . .	5 ,,
Field Marshal (Symons's)	. . .	5 ,,
Prince of Orange (Hoyle's)	. . .	4 ,,
Salamander (Gaines')	. . .	4 ,,
Cuyp (Beck's)	. . .	4 ,,
Alonzo (Foster's)	. . .	4 ,,

Ajax (Hoyle's) and Rosa (Beck's), two new varieties only just sent out, number 5 each, but they have not yet been sufficiently tested by general growers.

As it is well known that varieties producing the most perfect flowers are in general very ill suited for exhibition and general purposes, as Crusader, Delicatissima, Cavalier, Mount Etna, &c., for examples, I thought it would be a guide for amateurs and those who grow for exhibition, &c., to ascertain the most constant varieties, such as can be best depended upon for good habit and freedom of bloom; and the following is the summary:—

TWELVE PELARGONIUMS BEST SUITED FOR GENERAL AND EXHIBITION PURPOSES.

Constance (Foster's) received	. . .	7 votes.
Magnificent (Foquet's)	. . .	7 ,,
Gulielma (Beck's)	. . .	7 ,,
Pearl (Drury's), very old	. . .	7 ,,
Centurion (Beck's)	. . .	6 ,,
Forget-me-not (Lyne's), very old	. . .	6 ,,
Negress (Garth's), ditto	. . .	6 ,,
Alonzo (Foster's)	. . .	6 ,,
Star (Beck's)	. . .	5 ,,
Emily (Beck's)	. . .	5 ,,
Conspicuum (Foster's)	. . .	5 ,,
Virgin Queen (Arnold's)	. . .	4 ,,
Mont Blanc (Story's)	. . .	4 ,,
Orion (Foster's), very old	. . .	4 ,,
Ariel (Foster's)	. . .	4 ,,

Hoyle's Ocellatum and Ajax received four votes each, but being new varieties they are not yet sufficiently tested, though they certainly

are most beautiful and novel additions. If these remarks and tables are considered worthy of insertion in the FLORICULTURAL CABINET, and thereby obtain a far more extensive circulation than they otherwise would have done, I shall be only too pleased to let the world know there was nothing *invidious* or *treasonable* contained in what was sent to another periodical, which, as I have shown, refused to insert an independent article signed anonymously, for certain private reasons.

[We are favoured with the name and residence of our obliging correspondent, and thank him for the lists given. We shall be glad of similar returns of all popular classes of flowers. Such are useful guides to those desirous of procuring only the best flowers.—EDITOR.]

BRIEF REMARKS.

A BED OF LOW PERPETUAL ROSES.—The following on their own roots, or worked on very short (a foot) stocks, will suit the lady who solicits the names of a dozen varieties for a small circular bed:—Geant des Batailles, Ami Vibert, La Reine, Duchess of Sutherland, Duchesse de Montpensier, Celina Dubos, Madame Desprez, Fellenberg, Jaune Desprez, William Jesse, General Negrier, Baronne Prevost. These will bloom till November, or later if the season be mild as the present is. The list combines all the colours of Roses.

CHINA, GERMAN, AND TURKEY ASTERS.—Early last season I purchased a good packet of each of the best (so advertised) Asters bearing the above titles, and having a new pleasure garden of extent, I determined on having a first-rate display of these beautiful flowers, and for as long a period as possible. The ground being newly broken up, I had *most abundantly* manured. In order to have a long season of bloom, I made a sowing on the 1st of March in pots placed in a cucumber frame then at work. As soon as fit to prick out, I put three plants in each of a small sixty-sized pot. When filled with roots I re-potted into larger, placing them in a frame upon a bed of leaves, which had a gentle bottom heat, and I give all possible air during the day. By the second week in May I turned the plants out into the open ground, and by the first week in July I had a fine display of bloom. A second sowing was made on the 28th of April, they were pricked out in a frame on a south-expected border, and transplanted into the open ground the last week in June. These came into bloom about the middle of August, and continued till cut off by frost in November. The flowers were of a most extraordinary size, as superior to whatever I had seen before as it was possible to conceive, many of them being five inches across, and the single-flowered varieties larger. This result was in consequence of the extra quantity of old rotten manure which I applied. It was about five inches thick all over the ground, and well incorporated with the top spit of soil. It must be very rich to secure first-rate flowers. I planted them wide apart, and in dry weather gave a liberal watering from a small pond into which the drainings of a large heap of dung had run. In order to have seeds

of each class for next season's bloom, I had the masses planted remote from each other. The single-flowered were grown above a hundred yards distant from the double-flowered, a flower-garden (without Asters) being between, so that I have no fear of my double kinds being injured by impregnation from single ones. Try my method of treatment in a very rich soil, and the plants a foot apart; water as I did, and the result will more than repay.—*A Sussex Amateur Gardener.*

ECHITES.—(Dipladenia of some). These are fine *stove, climbing plants*, and as some of our correspondents have stated they have found some difficulty in growing them satisfactorily, the following method of treatment by Mr. Appleby, in the establishment of Messrs. Henderson, will, we think, if attended to, prove satisfactory.

Towards the end of summer, the season of rest commences by gradually withholding water from those species which have large fleshy roots, and as they have substance in themselves, water is entirely withheld till the time to start them in February or March following. Those kinds not having thick fleshy roots, he gives as much water only as saves them from shrivelling during their season of rest. These too are properly excited in spring.

Compost.—One part loam and leaf mould, or well rotted dung, and three parts turfy sand peat.

Potting.—The outer part of the old ball is carefully reduced so as not to injure the roots. The pots are large to admit of them growing vigorously; well drained. The compost is not sifted, but well broken together by the hand. After potting, plunge in a bark bed, or where bottom heat can be received. Where the stems survive through winter, and side shoots push in spring, three or four only are retained, and the others cut off clean make excellent cuttings (when a few inches long,) to strike in silver sand, under a bell glass, for a stock of plants.

The plants must have water given in a *moderate* degree, so the soil be just moist; they must not be flooded, for, the roots being very delicate, if soddened they speedily canker and perish.

† **HYBRID RHODODENDRONS.**—In the recently published part 4, vol. 5, of the *Journal of the Horticultural Society*, there is an article inserted on hybridizing this tribe of plants, by Messrs. Standish and Noble, of Bagshot, which is instructive and interesting. The following is an extract:—

“As so little is known in connection with the nature and effect of hybridizing amongst plants we shall take this opportunity of endeavouring to describe, with reference to the Rhododendron, some of the peculiarities which a very extensive practice has presented to us. We find that, analogous to what is observed in the animal kingdom, the greater the cross the more healthy the progeny, and that breeding ‘in and in’ produces weak and deteriorated constitutions. We have a remarkable instance of this in a batch of hybrids raised from *Caucasicum album* (that being a hybrid), fertilized by its own pollen. The plants are extremely dwarf, with variegated foliage; so dwarf are they that many of them had eight or ten flower buds on when only from four to six inches high, and four years old. They, however, bloomed quite freely when only three years old, and about as many inches high. Flowers

produced by these dwarfs were again fertilized by their own farina, and, although seeds were produced and vegetated, the plants could not be kept alive; but after various durations of existence, from two to eighteen months, they finally disappeared. One of the dwarfs above named, which we have called *Bride*, fertilized with the pollen from another distinct hybrid, has, however, produced some very healthy seedlings. A remarkable example of the varied nature which hybridizing effects in the *Rhododendron* is afforded in a hybrid raised from *R. catawbiense*, by a large yellow Ghent azalea. The object was to raise a hardy yellow hybrid, but in this we have been disappointed, as it has proved to be pink, and we have named it *Deception*. It is an extraordinary cross: we never recollect meeting with so decided a sport. It resembles neither of its parents, being one of our best growers, with foliage large and thick, of a bright green, and, when in a young state, it has the appearance of being coated with varnish. Another remarkable sport is a hybrid, which we have called *Towardii*, raised from *Catawbiense* by *Alta clarensis*, being a perfect giant in every respect. The foliage is very fine, and the flowers, both individually and in the truss, remarkably large, each forming a perfect cup. We know no *Rhododendron* equal to it in size and perfection of flowers."

RATS.—A remark is inserted in the *Midland Florist*, of a miller at Sneinton, near Nottingham, whose mill had been much infested by rats; twelve years ago he took out the soil as low as the foundation of the walls, forming a trench about a foot wide all round; he then carted a quantity of refuse from the gas-works and filled it up: since that time he has not had a rat in his mill.

These vermin being destructive in gardens, perhaps the application, in some way, of such kind of refuse, may be found efficacious.

DWARF PINKS.—In Belgium there is a celebrated Pink grown in pots, known by the name of "The Dwarf Pink of Verviers." The flower-stem only rises about four inches high, and blooms so profusely that from 150 to 200 are produced from a plant grown in a pot of seven inches across the top. Its culture is particularly confined to the inhabitants of Leige and Verviers, who take an especial interest in it. And besides the original kind, whose flowers are of a delicate rose-colour, they have a race which have smaller flowers, the colours of which are, red, purple, white, and striped red and white, and a pale yellow. They are very fragrant and charming ornaments for the window, where, having the full influence of the sun, they succeed the best: they do well too in the sitting-room.

The process of cultivation to have plants blooming so profuse requires three years' previous treatment. The plants are so densely grown as to thickly cover the surface of the soil, and tends to keep the soil in a moist condition for a longer period than otherwise would be the case.

CAMELLIA RETICULATA.—Many of the readers of the *Cabinet* are aware that this *Camellia* is a very straggling grower, and usually becomes an unsightly plant. To remedy this defect, M. Neumann, a celebrated grower of *Camellias* in France, states, "Last year, selecting

a vigorous plant, I commenced to pinch off the young shoots as soon as they were two inches long. The operation was performed about the end of April. This year, the same plant produced three flowers and twenty-seven wood buds or shoots, of which a good number were borne on the wood three and four years old, a circumstance which never happens in the absence of such an operation." This system has been generally adopted by cultivators with other straggling plants, but we have not seen or heard of its being applied to this *Camellia* by any other individual.

IRON TRELLIS.—In Belgium, a neat, light, iron trellis, to which plants are trained, is thus formed: there is a centre stem three or four feet high, having three prongs at the bottom to secure it properly when pressed into the ground or in the soil in a pot. At the top there is a frame-work, in form like a parasol. It has three circular rings; and four or six strong wires are secured from the top of the centre stem down the circular frame, and to each wire a branch or shoot is trained, and extending beyond the lower ring the drooping flowering-shoots have a very pretty appearance.

TULIPS OF 1850.—Our respected friend, the editor of the *Midland Florist*, is an ardent cultivator of Tulips, and wisely takes notes in the blooming season of the properties of the best. The following abridged remarks are from what he has recorded:—

Polyphemus (feathered bizarre), highly pleased with even the mutilated specimen shown at Belle Vue.

Magnet (a feathered bizarre), bloomed in his own collection; combined to perfect purity, the edging was laid on in a remarkable manner, not feathering, but plated.

Leonidas, a London, or south country, flamed bizarre; pure, good form, regular in its marking, and standing well up; first-rate.

Rhea Sylvia (Dixon's), feathered-rose; most beautiful.

Earl Stanhope (Waters's), a deep rosy-claret; first-rate in form, purity, and substance.

George Glenny, a light-beamed *Byblœmen*, of good form.

Hampden (Finlayson's), raised from *Polyphemus*, but is superior to it in colours, being black, on rich yellow.

NEW AND SUPERB ROSES.—"The list of Moss Roses has amazingly increased of late years—'quantity at the expense of quality' I fear is the case. I, however, recently noticed at Brussels a beautiful variety, called *Aristobule*. Its colour is a very pretty pink, slightly shaded and mottled. This will, I think, become a favourite with your Rose cultivators. There was also a novelty, in fact, a great one. Picture to yourself that old and deserved favourite, *Crimson Perpetual*: well then, take from the plant its beautiful deep pink flowers, and replace them with creamy flesh-coloured ones, then you have it; but, positively, as the flowers age, they become white. It really is a good thing, very fragrant, and, like the *Crimson Perpetual*, flowers very freely in autumn. It is called, from its similarity of habit I suppose, *Blanche du Roi*. Your florists appear to appreciate this class of flowers, and good hybrid *Perpetuals* and *Bourbons* are much in vogue here. *Madame Clavel* is a splendid Rose of this class; colour a lively pink,

the tips of the petals being of a darker shade. It is very floriferous, and has attracted considerable attention here. Madame Lamoriciere is a very singular and novel Rose; there is a peculiar transparency about the petals, which I have not noticed in Roses of this class: the colour is a bright pink, the back of the petals being of a much lighter shade. Purpurine is a very nice hybrid perpetual; the flowers are very well formed, and of a most brilliant deep scarlet. This will, I think, be as much admired with you as the famed Geant des Battailles. There is yet another that I find amongst my memorandums, and it has a mark of admiration against it: it is Charlotte Segulier. I think, of all I saw, this was one of my greatest favourites: the flowers were nearly as large as La Reine, and of full and fine contour; in fact, a splendid and excellent-blooming autumnal variety; colour pink.

“You would be surprised at the immense quantity of seedling Roses raised in Belgium. Many, certainly, are inferior to what you already have; and, in fact, I believe it is advisable that even those which, during the warm summers here, flower so finely, should be previously proved in your country.

“In Bourbons, I did not see more than three or four that I considered extra amongst the new ones. General Oudinot is a remarkably brilliant colour, crimson, shaded with purple; the flowers, also, are more than usually double: this, if it opens well with you, will be a general favourite. Deuil de l'Archevêque de Paris, a long name truly, but a fine Rose: it is a very peculiar deep purple-crimson, slightly mottled or shaded with light crimson; as a pot Rose you will, I think, find it very fine. I must now conclude my notice with a fine fancy Rose, called Narcisse de Salvandy. It is a beautiful crimson-purple, the petals margined with cream colour—the florists here say white, but I do not call it pure; nevertheless, it is a most striking sort. This, with the others before mentioned, I think the cream of what I have seen. Nevertheless, Colonel Foissy, Comte Bobrinsky, Jeanne d'Arc, and Madame Guillot are very beautiful, and should, by this time, be introduced into England.”—*Midland Florist*.

LANDSCAPE GARDENING.—General leading principles: “A garden should have more or less of simplicity, according to its size and character in its main outlines, arrangements, and furniture. The transitions in it should be easy and flowing, the lines all graceful, the decorations elegant. Very rarely will a small garden bear being furnished with any striking evidence of wealth, or luxury, or elaboration; the hand should touch it so lightly as to leave few traces of its operation; its forms and figures ought all to be gently rounded off, and unite softly with each other. Lawn and gravel, shrub, tree, and flower, must appear to belong to one another, and to fit into the place they occur.

“At the same time the intricacy which arises from a partial and pleasing involution of parts, from slight and insensible changes, and from that artful arrangement of single plants and groups which produce *freshness of aspect and newness of vista from so many points of view*, must not be neglected; for a garden may be all that is correct and tasteful, and classified, and yet, like a well-moulded countenance,

prove dull, tame, and void of expression. It is play of feature—a something behind and beyond which has not been explored,—novelty of expression, variation of aspect, an *alluring attraction onwards* after higher beauties, that constitutes, in both instances, the life, the spirit, and the charm. Intricacy is, in fact, the very soul of landscape gardening.”—*Kemp*.

STEPHANOTUS FLORIBUNDUS.—“ I have had a plant of this fine climber for two years growing in a pot plunged to the rim in a bark bed. It grows well, but has not yet bloomed : what am I to do with it to induce it to bloom ? ”—*Amicus*.

(Probably you have it in a house where the temperature is constantly high, and where the plant is continuously growing. Now, it requires (as do all others) a season of rest in winter. Remove it now to where it can have a temperature of from 50 to 55 degrees ; and at the beginning of March bring the plant back, where it may have from 65 to 70 degrees of heat, and, with proper treatment, it will soon bloom. Care must be taken to have the wood strong, and always well ripened, and bloom to any desired amount may be obtained. A friend of ours has a small stove, which he keeps cool in winter, and at one end he planted a *Stephanotus*, which is trained across the house lengthways to a wire trellis, the branches about nine inches apart, and the entire surface covered by the plant, and which blooms in vast profusion, appearing as one mass of waxy-white flowers. Their beauty and fragrance entitle them to the attention of all.)

COMPOST FOR THE ORANGE-TREE, &c.—In the following compost this tribe of plants have been found always to grow vigorously and be very fruitful :—

Turf.—Three or four inches thick, that has been in a heap a few months, well chopped and broken by the hand : to this a small portion of *dry* bits of manure, and a sprinkling of pieces of sandstone, charcoal, and lime, or plaster rubbish ; these well mixed together. A liberal drainage, and water so given on each occasion to keep all the soil moist. During the growing season manure-water should be given once a-week, and the surface of the soil be stirred once a-week, when it is somewhat dry.

CULTIVATION OF THE AMARYLLIS FAMILY.—The following directions more particularly apply to such as *A. sulcata*, *fulgida*, *vittata*, *formosa*, *Johnsonia*, &c., but will do well for all others :—

“ The most favourable time to re-pot the plants is when they attain to their *strongest growth*. Take care *not to break* the ball, but take off about two inches of the surface soil, and carefully *clear*, and then regulate the principal roots and place a layer of new soil in the bottom of the pot. The soil to be, equal portions of loam and leaf-mould : upon this place the bulb in its ball, and fill up around, and press the whole gently down, and give a good watering to consolidate the soil. Place the plants for a few days in a close frame and syringe over head, after which give air, &c. After blooming, the bulbs must have a season of rest, that is, during the three or four last months of the year to be kept very dry—be placed in the pots on a dry shelf in the stove. In January they are placed near the light, free from drip. By-and-by

their scapes and leaves begin to grow; then slightly water, gradually increasing the quantity. They will flower and ripen seed well, especially if artificial impregnation has been attended to. Success in ripening the seed depends on the following precautions:—avoid changing the pot from its place; keep the heat at from 10 to 12 degrees Reaumer (that is from 55 to 60 of Fahrenheit) at the least, and never allow it to get below 50 of Fahrenheit; water whenever required, but moderately at a time. The production of seed never injures the bulb.”—*M. L. Van Houtte.*

CULTURE OF ONE-YEAR-OLD ROSES IN POTS.—In the *Gardener's Magazine of Botany*, Mr. Saul, of Durdham Down Nursery, near Bristol, writes that, with Roses in pots, *the second season*, “I prefer potting in this way: I procure a quantity of turfs as they are brought from the field, and very rough, pretty dry, well decomposed cow-dung. The pots being drained, I tear off one or two large pieces of the turf, and put it into the bottom of the pot on the drainage, top downwards.” On this the ball of roots is placed, and if not sufficient to raise it up as high as is necessary, a mixture of turf and cow-dung is added. Being placed, he tears off pieces of turf about six inches long and two broad, and two deep; about four of such pieces are crammed (end downwards) between the ball and the pot side, and the spaces between the turfs are filled up with large pieces of rough cow-dung; and this being done, some of the mixed materials are added, and the entire pressed together, so that no cavities are left.

He observes, “this manner of potting may appear strange to some,” but with proper after-treatment the vigour and the beauty of the plants the following season, will be to them equally novel. Tea, China, and, in fact, any other pot Roses will bloom magnificently. Mr. Saul recommends the plants being kept in a cold frame or pit, south aspect, and plants to be elevated up, pots upside-down, and the plants to be near the glass. All the air possible, so that frost is excluded, is given; but little water in winter. And early in spring some of the top soil is scraped off, and a dressing of the rich mixture compost is given. Manure water applied once a fortnight, through the growing and blooming season. He prunes and trains the plants, so that those which are climbers form pyramids each three or four feet high, or any other desirable shape. This is readily done by having either wood or iron forms to tie to.

AYRSHIRE ROSES.—Five years ago you recommended in the **CABINET**, that where banks or dells existed in pleasure-grounds or woods that were frequented, it would produce a pleasing appearance to have them covered with the Ayrshire Roses. I was thereby induced to adopt the plan in my grounds upon several steepish slopes and two hollows, and with the most satisfactory result. On the slopes there are a few Sloe-bushes, and against these I had Roses planted. The ground now is wholly concealed; and when the Sloe-bushes have ceased their own floral display they are the supporters of numerous drooping branches, beautifully ornamented with lovely Roses, and the surface of the bushes are in appearance, each, one large Rose-bush, and the slopes a mass of varied beauties. I planted a few at a distance from the stems of some large trees, and trained the shoots up to ornament

them, in view from my house, and they succeed well. The first three seasons I watered them in dry weather, but now they are established. I planted the following Ayrshire Roses:—Dundee Rambler, white, edge-pink; Queen, dark purple; Myrrh-Scented, blush, peculiar scented; Queen of the Belgians, white; Ruga, pale flesh; Bennet's Seedling, white; Splendens, white and rose; Countess of Lieven, creamy-white; Miller's Climber, bright purple. I added a few others, which bloom most profuse, although they do not spread as rapid as the Ayrshire: some of the latter have shoots ten yards long. *Boursault Roses*:—Elegans, crimson-purple, white streaks; Gracilis, bright rosy-red; De L'Isle, blush, rose centre. *Other Climbers*:—Wood's Garland, pink, then white; Myrianthus, blush and pink; Rampante, pure white; Felicite perpetuæ, creamy-white; Leopoldine d'Orleans, white and rose. These are a beautiful collection, and I procured them very cheap. I have had a few round, oval, and irregular-shaped beds planted with these various sorts of Roses. The round and oval beds I had iron rod at the centre of the former, and inclining wires from it to the edge; to these I tied the branches at first, and then allowed the shoots to run rampant: they now cover with a mass of beauty. A stout oak-stake or two, instead of iron, will do equally well for many years. The two formal beds had a formal surface of Roses; but the irregular-shaped beds I had the surfaces formed hill and dale, so as to harmonize with the broad and narrow parts of it. These beds are particularly pretty. I recommend these Roses and methods of ornamenting to all who have the means of adopting the system. The plants have not been pruned, nor will they require it.

EUPHORBIA JACQUINIFLORA.—In your recent numbers mention is made of the flowers exhibited for sale in Covent Garden, and the above named is one of the list. A few days back I passed through the market, and carefully inspected the fine variety of flowers in the shop-windows. None attracted my attention so much as the fine specimens of *E. jacquiniflora*. I have grown two plants of it the last three years in my small plant stove, and both have bloomed profusely each season. I have a free drainage, a compost of equal parts of loam and sandy peat. I allow the plants a season of rest after blooming, then re-pot, give water, and a higher temperature; and by this process with the two, one started at an early period, and the other midway, of the season, I have a plant in bloom all the year. The plant is of graceful growth, and the shoots are naturally long, curving downwards. The flowers are numerous produced in constant succession along the upper side of the shoots. Each blossom is about the size of a fourpenny-piece, of a *bright scarlet* colour, and borne in profusion produce a most beautiful effect. The plant is easily kept somewhat bushy by stopping the leading shoots, and thereby induce the production of side-shoots, and this object once realized can be readily retained. When the plant is at rest it may be pruned in, and a selection of the new-pushed shoots upon the previous year's branches should be retained, rubbing off the surplus: such become the blooming ones. One or more plants ought to be grown in every stove, or in a warm greenhouse, in summer. It is a charming winter blooming plant, offered at a cheap price, and of easy cultivation.

CALCEOLARIAS.—This flower has long been a favourite of mine. I have annually bought some of the best varieties, and as regularly lost the greater part during the summer, when the bloom was over, till the summer of 1849. An old grower called upon me in the spring of that year, and on my relating the losses I had so long sustained, he requested the detail of my summer's treatment, and on my naming it, he pointed out immediately wherein my failure consisted.

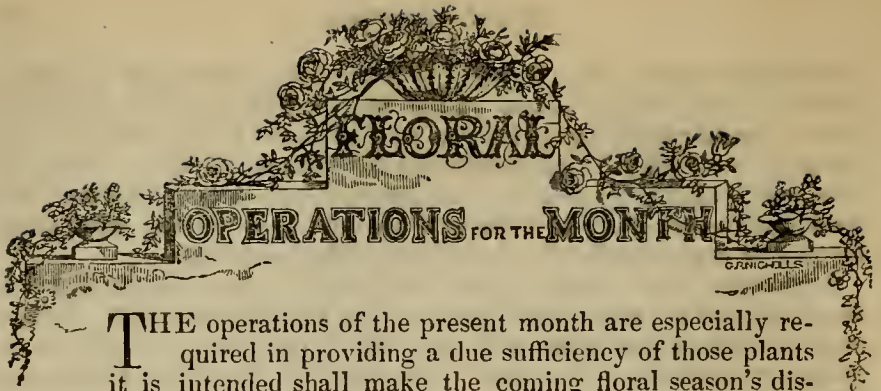
I had been accustomed to place my plants out-doors in the full sun after they had done blooming, and in this situation the pots became much heated, which dried and soon killed the roots, and the plants gradually perished. He supplied me with the following particulars relative to a successful management of the Calceolaria :—

Compost.—Sandy-loam, peat, and leaf-mould, and *old-rotten* cow-dung, in equal portions. A liberal drainage always to be given.

Propagation.—The side-shoots throw out numerous rootlets at the closing part of summer, then take off what is required. If roots appear, pot off singly into four-inch pots; if no rootlets appear, put them off as cuttings, a number in a pot, and place the pot in a cool frame in the shade: they will soon root; then pot before winter. Keep the plants through winter in a cool pit, just from frost and damp; or in a cool, somewhat shady place in a greenhouse. Never make a codling of a Calceolaria plant, so that *at all times* give plenty of air. Re-pot in February into two sizes larger, and when they begin to grow, give a proportionate increase of water; let the water be cold, and once a-week give a soaking of manure-water, for, when growing freely, they are gluttons with food, and show it advantageously too. A second, or even a third shift may be required if the pots become filled well with roots. They will not require shifting after the middle of May. All air, I repeat, must be given, especially as the flower-stems are pushing, so that they may not be drawn up weakly. Keep them vigorous and as low as possible: they delight in a *cool air*, let them have it *at night* too, as this is especially refreshing to them. Never allow the roots to be dry overnight, let them have the *cool damp* through it. During the period of bloom, if you wish to have the plants in a greenhouse, place each pot inside a larger, fill up between with moss, and water them well every evening; it will keep the roots cool. Have the plants where a free air can be admitted. When the bloom is over, place the plants out-doors in a somewhat shady, but airy situation; and if a bed of moss is formed, and the pots plunged up to the rim in it, that also being occasionally watered, it will very much contribute to their prosperity.

Seed should be sown as soon as ripe, the plants be potted off singly as soon as strong enough, and be treated in all respects as above recommended. It is essential to success that abundance of air be given the Calceolaria; keep the *roots cold* as possible, and never use *warm water* or allow the plants to wither.

Now, since I was favoured with these simple directions, I have practised them, and have not lost a plant the last two seasons, and my stock has grown and blossomed vigorously.



THE operations of the present month are especially required in providing a due sufficiency of those plants it is intended shall make the coming floral season's display, therefore an immediate prompt attention must be given to realize that object, by sowing seeds, striking cuttings, or dividing plants, &c.

IN THE FLOWER GARDEN.

Rose-trees must be planted directly, or success is hazardous. Prune the open-air kinds of the *hardy class* now, and the tenderer sorts next month. Perennial and biennial plants in the flower-bed may be divided. Plant out Hollyhocks as soon as possible, and any of the biennial plants. Pink beds: see that the plants remain secure, and stick some whin or fir-tree branches in among the plants, or make a low hedge of them around the bed, in order to screen the plants from cold wind; a top dressing of fresh soil and well-rotted hot-bed manure should be given Carnations and Picotees. If mildew attacks the leaves sprinkle with sulphur. Let the plants have all air possible; protect from rain. Manures should be laid over the roots of Roses, removing a few inches of the earth, filling up the hollow with well-rotted cow or hot-bed dung, and sprinkle it over with soil, so that it may not dry. If the surface of beds or bulbs has become hard and stiff, stir it over frequently, in order to admit that free atmospheric influence to the roots which is essential to success.

About the middle of the month, if the weather be dry, plant Ranunculuses and Anemones, placing them at five inches apart, and an inch and a half deep from the crown to the surface; and if the soil be dry, after planting, press the surface with a flat board. If the formation of the bed has not been effected, dig out a space half a yard deep, and put all over the bottom a layer of cow manure five or six inches deep, after which fill up with the proper compost (see Articles upon). Be careful that Tulips be firmly secured in their positions, so that they be not damaged by wind. A small protection against strong wind should be provided on the bed side most exposed. Heartsease in beds should have a similar protection, and a little fresh soil spread over the bed. Now is the time to make a plan of the flower garden, parterre, &c., and to mark each bed with the kind of flowers required, and then to prepare a stock to furnish accordingly, whether from the sowing of seed or otherwise, as with Verbenas, &c. Protect the early buds of Tree Peony, &c.

IN THE FORCING STOVE OR FRAME.

Sow seeds of the tender annuals, as Balsam, Amaranthus, Cockscomb, &c., in pots, and the half-hardy kinds, as Asters, Stocks, &c., either in pots or upon a bed of soil, &c. When sown in pots, do not water the

surface at the time, but after a few days, if the soil be dry, a gentle sprinkling may be given, and afterwards, till the plants are up, great care must be taken to keep it moist, for when once softened, if the seeds become dry, destruction soon follows.

Cuttings of Fuchsias, Alonsoas, Ragwort, Calceolarias, Cupheas, Salvias, Heliotropes, Geraniums, Lotus, Bouvardias, Anagallis, Verbenas, Petunias, and such like plants for the open beds in summer, should immediately be struck, or the plants will be too weak to answer the purpose. If cuttings were put off in autumn, they should now be potted off singly into small pots, they will then be well established by turning-out time; any long ones amongst them should be stopped, to induce laterals and make bushy plants.

Dahlia roots should be immediately put to force for stock.

Dahlia seed should be sown in pots, and only just covered. Lobelias should be potted singly to have them vigorous by turning-out time. Boxes and pots of Mignonette for succession should be sown. Achimenes, Gesnerias, Gloxinias, &c., should be introduced, to promote their immediate growth, and as soon as the plants have pushed, pot them, singly or otherwise, as desirable. Amaryllis, &c., may be excited in like manner. Hyacinths, &c., approaching bloom, must be placed in an airy, light situation, and to those in glasses give a change of water every three or four days. Pot singly *Tigridia pavonia* and *T. conchiflora* into small pots. Sow, in pots, seed of the Chinese Primrose, and as soon as the plants are fit to pot off do so in a rich compost; keep them in heat for a short time, and never water them over head. Calceolarias, too, should be encouraged, to have them large; they, as well as Cinerarias, succeed best when grown in a warm, moist, airy pit-frame, kept at about 56° of temperature; thus kept, and temperature increased with the season, they will bloom luxuriantly, and when coming into bloom may be removed to the greenhouse, &c. Mignonette should be sown in pots for early summer blooming. Fuchsias required for exhibition should now be cut in, so as to have them a good shape, and after having pushed a little be re-potted, thinning away all unnecessary shoots.

IN THE GREENHOUSE, &c.

Pelargoniums, to be superb specimens, should be repotted into their blooming pots (read the several Articles on their culture in previous volumes); they must have a free circulation of air around the plants; it gives vigour to the shoots and prepares them for a higher temperature afterwards without injury, and a stronger bloom is produced. The one year old plants headed down last autumn will have produced young shoots, now a few inches long; thin them. In order to have a succession of bloom, now stop the shoots; this will induce the production of lateral ones, which will come into bloom after the first race of plants has ceased, and continue to a late period of the season. A few more plants, stopped a month later, will supply to the end of the year. (See Vol. XVI., p. 199.) The surface soil in all pots should be stirred up; it tends to health. Epacris, Correas, Coronillas, Acacias, Cinerarias, and other plants, will now be coming into bloom; water seldom as possible, but when given let there be as much as will moisten *all* the soil. Ericas will still be inactive, give but little water. If any mildew appears, dust with sulphur. Camellias, too, should occupy an airy

part, and the greatest care should be taken to keep the soil in an *equally moistened* state, using water of a temperature equal to that of the house. Give weak manure-water alternate with the other. *Alstrœmerias*, *Lilium speciosum*, and others, should be re-potted. Any plants which have filled their pots with roots should now be potted into larger. If a syringing of the plants over-head be really necessary, let it be done in the morning of a day which is likely to be fine, and air be admitted freely.

IN THE STOVE.

Old plants of *Fuchsia corymbiflora* now gently pushed on will come finely into bloom by the first week in May, or, if the season be fine, earlier. Exotic seeds should now be sown (see Articles in former volumes). Plants for forcing must be brought in, as *Roses*, *Lilacs*, *Azaleas*, *Acacias*, *Heliotropes*, *Correas*, *Coronillas*, *Cinerarias*, *Sweet Violets*, *Cactuses*, *Cyclamens*, *Gardenias*, *Justicias*, *Eranthemums*, *Honeysuckles*, *Pinks*, *Gesneria zebrinas*, *Neriums*, *Mignonette*, &c., and pots or boxes of *Hyacinth*, *Narcissus*, *Persian Iris*, and *Crocus*. Specimen plants for exhibitions will require re-potting, pruning, &c. *Ixoras* should be elevated, so as to be near the glass, in order to set their bloom; they must have plenty of air at all times convenient.

NEW FANCY CLASS OF PELARGONIUMS.

NEARLY all the kinds of what are called the Fancy *Pelargoniums* have been raised within the last five years; and such rapid improvement has been made in the form and substance of flowers, that we do not recollect any other section of flowers that by hybridization has, in the same space of time, reached such perfection in form and substance of flower as this class has attained; and from their dwarf habit, profuse blooming, and prettily painted-like flowers they will become general favourites.

Attempts, however, are now making to have such pretty fine-formed flowers, with an improved variety of foliage, in the form of the *Stags' Horn-leaved*, the *Oak-leaved*, the *Odour of Rose-leaved*, &c.; thus, not only having a more interesting foliage, but possessing the peculiar fragrance which those kind have, as *Lemon-scented*, *Rose-scented*, *Peppermint-scented*, *Nutmeg-scented*, &c. Some advances have been made in that direction, and, no doubt, the full attainment will ere long be realized. We recommend our readers to attempt at such improvements, and to hybridize too with the best of what are called *the Cape species*, some of them having very elegant-formed foliage; and the habit of that class is very different too, so that in this latter particular something very interesting might be effected. Some of the *Cape species* have been very rich-coloured flowers, and if those colours and form of foliage are obtained by some of our present fancy class that seed well, as *Anais*, *Jehu*, &c., a most interesting race would be secured: and, on the other hand, the impregnation of the *Cape species* by some of our best fancy class, and the form of flower on the progeny be of that character whilst the plant retained its natural form, this too would be a valuable acquisition. The attention to effect these desirable ends would, in its process, be interesting, and would, no doubt, be amply rewarded. Being possessed of but a few plants of each class, and they may be had very cheap, it is well worth attention.





1

1. *Narcisse de Sabrandy*. 2. *Noyau Purpureo-fusca*.



FLORICULTURAL CABINET

MARCH, 1851.

ILLUSTRATIONS.

1. NARCISSE DE SALVANDY ROSE.

THIS singularly handsome Fancy Rose belongs to the Provence section. It was raised by M. Louis Parmentier, of Enghein, a celebrated Rose grower, who, besides the present beautiful variety, has recently succeeded in raising several other very striking ones. The one we now figure is a vigorous growing plant, and a very free bloomer. It is cultivated in the celebrated nursery of M. Louis Van Houtte, of Belgium. It merits a place in every collection of Roses.

2. HOYA PURPUREO-FUSCA.

The lovely *Hoya carnosa* has long been known in this country, and universally admired. Recently, the delicately handsome *Hoya bella* has been introduced by Messrs. Veitch, and to them we have now the pleasure to notice the following very interestingly pretty additions.

The one we now figure forms a beautiful contrast with the above-named species, the colour being so very different. The plant is a native of Java, from whence it was obtained by Messrs. Veitch. Mr. Lobb discovered it in the woods of Panarang, where it forms a very handsome climbing plant. It is a very free bloomer, and flourishes with the same kind of treatment as the *Hoya Carnosa*. It merits a place wherever it can be grown, more especially so when cultivated in connection with the light coloured flowering ones. In warm green-houses they flourish admirably, and are charming ornaments when trained round pillars or to wire framework.

HOYA CORIACEA. LEATHERY-LEAVED.—Messrs. Veitch's collector discovered this fine vigorous species in the woods on the western side of Java, where it climbs up the trees, and blooms freely. The heads of flowers are large; the blossoms are brown when in bud, and become paler colour in proportion to age, being white at last. It is a fine species both in foliage and flowers.

HOYA CAMPANULATA, THE BELL-FLOWERED.—This singular species has also been obtained from Java by Messrs. Veitch. Mr. Lobb discovered it in the copses on the mountains of that country. It is a long slender-stemmed twining shrub. The flowers are shallow bell-shaped, each about an inch and a half across; they are waxy, and buff-coloured. The head of flowers forms a neat ball, near four inches in diameter.

HOYA OVALIFOLIA. THE OVAL-LEAVED.—Mr. Gibson, who was sent by his Grace the Duke of Devonshire to collect plants in India, discovered this beautiful species, which has bloomed in the stove at Chatsworth. The leaves are about six inches long, and the flowers are of a pretty yellow colour, each blossom having the centre (corona) distinctly marked with a cross.

The heads of flowers are of a medium size, but are very delicately handsome. It will make a fine contrast with the first three species we have inserted in our present remarks. It ought to be one of every collection.

HOYA PALLIDA.—Mr. Griffith collected this species in India, in the Burmese Empire. It has also bloomed at Chatsworth. The heads of flowers are in form very similar to those of the *Hoya carnososa*, but a little smaller; the blossoms are of a pale yellow colour. All the above species are beautiful climbing plants, and well merit cultivation. They grow freely, and bloom abundantly, in a compost of equal parts of turfy light loam and sandy peat, not sifted but broken, and a few bits of charcoal mixed in it, also having a liberal drainage. In winter, they require a period of rest, and at that time care must be taken not to saturate the soil with water, only give just what will keep it moist. All the kinds are easy of increase.

The Genus *Hoya* now consists of near fifty described species, most of them inhabit moist woods in India and other countries. They have a season of rest during the tropical dry season, when the plants are subjected to much drought.

NOTES ON NEW OR RARE PLANTS.

ACONITUM SINENSE.—It is a native of Japan, quite hardy, perennial. It is a fine autumnal blooming plant. The flowers are borne in rather large racemes. Each blossom is an inch and a half across, of a rich deep violet colour. It grows two feet high. It makes a pretty ornament in the greenhouse in a pot during autumn, as well as in the flower-garden.

ADENOSTOMA FASCICULATA.—A native of California; quite hardy. It is a heath-like, evergreen, bushy plant, growing two feet high. The flowers are small, white, produced in terminal panicles. Introduced by the Horticultural Society.

AMHERSTIA NOBILIS.—This noble Indian tree has been in bloom for some time in the stove in the gardens of Mrs. Lawrence, of Ealing Park, and we understand it is the only place it has bloomed at in this country. Its fine pinnated foliage, and large flowers of a deep salmon-pink colour, render it deserving of its specific title *nobilis*.

BANKSIA OCCIDENTALIS.—The Archbishop of Dublin received seeds of this elegant plant from New Holland, and presented them to the Dublin Botanic Garden. A plant (bush) has bloomed in that establishment, which is only three feet high, and had half a dozen spikes of handsome flowers, of a rosy crimson colour, in rows intersected with brown. Each spike is about four inches long. The leaves are five or six inches long, and a quarter of an inch broad. A very beautiful species, suited for a conservatory, or large Greenhouse.

BILLBERGIA MORELLIANA. (Synonyme, *Tillandsia Morelliana*.)—Mr. E. G. Henderson, of Wellington Road Nursery, obtained this handsome flowering plant from the Continent. It is of the Pine-Apple family. The flowering stalk is long, branched; the stalk and bracts (small leaves) are of a bright-pink colour, as are the tubes of the flowers, each tube being two inches long. The petals are nearly an inch long, each blossom having three, which gradually unfold and bend backwards. They are of a rich violet-blue, and produce a charming contrast with the bright pink of the other parts of the flower. They require to be grown in a stove, and not to be over-potted, having a season of rest in winter; re-pot early in spring, and it will soon push into bloom.

CALCEOLARIA ALBA.—This is a very neat shrubby plant, with very narrow curving foliage. It grows two feet high. The flowers are borne in terminal panicles, of a pure white. Each blossom is round, about half an inch across. It is a valuable acquisition, and last summer we found it to bloom profusely. Admirable for the open bed, or growth in a pot. It is a neat plant for the greenhouse in summer, and ought to be in every one.

CYPRIPEDIUM GUTTATUM. SPOTTED LADY'S SLIPPER.—This exquisitely beautiful hardy terrestrial orchid is figured in Mr. Van Houtte's *Flore*. It is a dwarf plant, five inches high, having a pair of broad leaves, and between them springs up a solitary flower, nearly two inches across. The ground is a pure white, marked and spotted with rich purple-crimson. It has bloomed in Mr. Van Houtte's collection. It grows in bogs and marshes in Canada, and at Moscow.

ECHINOCACTUS STREPTOCAULON. SPIRAL-STEMMED.—Mr. Bridges brought this singular species from Bolivia. It has recently bloomed in the splendid collection at the Royal Gardens of Kew. The plant is half a yard high, erect, column-like formed, broad and woolly at the top. The sides are fluted with twelve to fourteen *spirally twisted*, sharp ribs, the furrows also acute. The flowers are produced at the woolly crown, three or four of them, sulphur yellow, each being about an inch across. (Figured in *Bot. Mag.*, 4562.)

ERICA. TURNBULL'S HYBRIDS.—Three beautiful seedlings raised by Mr. Turnbull, Gardener, at Bothwell Castle, in Scotland. *E. Douglassiæ*, was raised from *E. Aitoniana*, crossed with *E. retorta*—major; tube, an inch long, flesh-pink colour, with a crimson ring around the upper part of the tube; the flat, four-parted end (limb) is

white. They are produced at the ends of the shoots, in heads of from eight to twelve in each. The leaves are short, in whorls. A very handsome variety. *E. Marnockiana*, was raised from *E. Irbyana*, crossed by *E. Hartnelli*. It is of dwarf habit, and free bloomer. Tube ventricose, an inch long, of a rich crimson red, and under the limb a dark ring. The limb is white. The flowers are borne in terminal heads of from four to eight in each. A very handsome variety. *E. simulata* was raised by *E. Aitoniana*, being crossed with *E. cerinthoides*. It is a free bloomer, tube nearly an inch and a half long, of a clear delicate rose colour. The flowers are borne in terminal heads, of {four in each; a very pretty variety. The foliage of the three partakes of the form of *Aitoniana*, giving the plant a delicate, neat appearance, and, having such large blossoms in terminal heads, produce a fine effect. (Figured in *Mag. of Bot.*)

GERANIUM THUNBERGII.—A native of Japan. An annual of prostrate growth. The flowers are of a purple colour, three-quarters of an inch across. Neat and pretty.

HELIOTROPIUM PERUVIANUM, var. GEM.—This handsome variety has been raised by Mr. Salter, of Versailles Nursery, Hammersmith. It originated from a seed obtained from *H. Voltaireanum*. The flowers are in compact heads, similar in colour to *H. Voltaireanum*, but has a distinct white eye. The plant is of vigorous growth, and blooms very profusely. It is a charming addition to the lovely tribe. (Figured in *Mag. of Bot.*)

LILIUM WALLICHIANUM. DR. WALLICH'S NEPAL LILY.—In habit this very noble flowering species resembles *L. longiflorum*, *L. speciosum*, &c., and grows as freely. The flowers are borne singly, terminal, drooping; of a creamy-white colour. Each flower is nine to ten inches, or more, long, and nearly as much across the top of the flower, when fully open. They are very fragrant. It has bloomed in the Botanical Gardens at Belfast. (Figured in *Bot. Mag.*, 4561.)

ONCIDIUM LURIDUM ATRATUM.—The Horticultural Society introduced this handsome flowering plant from Mexico. Sepals and petals are olive and rose coloured; lip a rich crimson, with five dark purple tubercles.

PHYLLOCACTUS ANGULIGERA. THE ANGLE-BEARING LEAF-CACTUS. Mr. Hartweg, who was sent out by the Horticultural Society, to collect plants in California, states "that he first saw this plant near Montanejo, a village in the west of Mexico. It was growing in a forest of oaks, and, from its native association, is supposed to require only a greenhouse habitation in our own country. It proves to be one of the hardiest species. It belongs to what would generally be considered the *Epiphyllum* section of *Cactæ*. The flowers are borne at the edges of the flat leaves, each being five to six inches long; brown outside and white within, and five inches across when fully open. It is in the collection of the Horticultural Society at Chiswick. (Figured in *Paxton's Flower Garden.*)

PISTIA STRATIOTES. WATER LETTUCE (Synonyme, *Plantago aquatica*.)—This singular plant only requires a vessel, or tank, supplied with water, and tufts of it float along the surface, appearing like a half grown *Cabbage Lettuce*, which continues in great beauty all summer and autumn. The flowers are nestled among the leaves, and of little beauty. The roots hang down in the water, and are a very pretty object on lifting out the plant; they are beautifully feathery, and do not attach to any soil, &c.

In the West Indies, this plant covers the surface of stagnant waters, in the same way as the Duck's Meat do in our own country. It requires to be grown under glass in Great Britain, and in a cistern of water at seventy degrees of temperature. (Figured in *Bot. Mag.*, 4564.)

POTENTILLA OCHREATA.—From the Himalaya Mountains. A pretty dwarf hardy shrub. The flowers are terminal (end of shoots), of a bright yellow colour, each about an inch across. Major Madden introduced this handsome shrub to the Dublin Botanic Garden.

SCHÆNIA OPPOSITIFOLIA.—This is a very lovely annual, from the Swan River colony. It is nearly allied to the *Helichrysum*. It is quite equal in beauty to the charming *Rhodanthe Manglesii*, and the flowers are of a similar form, but erect, and of a similar beautiful rose colour. The flower stem rises a foot or more high, and the flowers are borne in broad corymbose heads, twenty or more blossoms in each. A separate flower is nearly an inch across. Seeds were sent to the Royal Gardens of Kew by Mr. Drummond. Seeds require to be sown early in spring; plants potted off singly, or three in a pot, to have a larger display, and otherwise treated as greenhouse ornamental annuals for summer display therein. It is a very charming plant, and a valuable substitute in the greenhouse, when the usual collection is out of doors in summer. (Figured in *Bot. Mag.*, 4560.)

TAMARINDUS OFFICINALIS. TAMARIND TREE.—The West Indian kind is, in the Royal Gardens of Kew, about fourteen feet high. Its beautiful Acacia-like foliage has a pretty appearance. The flowers are borne in short racemes terminal on the side shoots, each raceme having from six to eight. A separate blossom is an inch across, has six spreading petals, of a pale yellow streaked with red. (Figured in *Bot. Mag.*, 4563.)

VANDA CÆRULEA. THE BLUE FLOWERED.—This is said to be the noblest of the Indian race of Orchids, and Mr. Griffith found it growing among the Khasya or Cossya Hills. The leaves of this wonderful plant are five inches long, by one wide; at their end, two-lobed, and each lobe sharp pointed, so that the end looks as if a piece had been struck off by a punch. The flowers grow in upright spikes. A piece of a stem, but four inches long, bears four such spikes, which are from six to nine inches long, and carry from nine to twelve flowers. Each blossom is about four inches across, of a delicate lilac-blue colour. Messrs. Veitch's have received this very charming plant from their valuable collector, Mr. Lobb.

The above description is of a dried specimen which had been sent,

we believe, to Dr. Lindley, by Mr. Griffith. (Figured in *Paxton's Flower Garden*.)

SHOWY PLANTS IN BLOOM AT THE ROYAL GARDENS OF KEW.

BANKSIA SPINOLOS.—Plant ten feet high, having short, Pinus-like foliage. The tufts of flowers are each six inches long, of a deep gold colour, with crimson filaments. Very handsome.

BANKSIA PALUDOSA.—Leaves like those of a small-leaved *Rhododendron ponticum*. Tufts of flowers, each seven inches long, of a rich brown colour. Very handsome.

BANKSIA MEDIA.—Plant nine feet high; leaves five inches long (what are termed saw-leaved). Tufts of flowers, each six inches long, of a bright golden-yellow colour. Very handsome.

The above Banksias are in the large house appropriated solely to this class of plants. The three now in bloom are well deserving a place in any similar house.

In the Greenhouse.

ACACIAS.—*A. mucronata*; plant five yards high, small lance-shaped leaved, fine yellow blossoms, profuse bloomer. *A. lineata*; fine foliage, flowers in round balls, of a deep gold colour, produced in vast profusion. One of the handsomest, and deserves to be in every greenhouse. *A. diptera*; the flowers are in round balls, pure white, and contrast prettily with the yellow, sulphur, and golden ones. *A. dependens*; flowers pale yellow. *A. rotundifolia*; very pretty, small foliage, and the flowers in round balls of a deep yellow colour; very handsome. *A. eriocarpa*; the flowers in large balls, of a very rich deep yellow; very handsome. *A. squarrosa*; the flowers similar in size and colour to the last described. *A. pubescens*; panicles of flowers, drooping, a profuse bloomer, with rich yellow flowers; very neat. Like all the tribe, they are interestingly neat, pretty, and many of them fragrant; blooming, too, at this season renders them additionally charming. Every greenhouse ought to have some of them.

BAROSMA DIOICÆA.—A bush three feet high, covered with a profusion of white flowers. Each blossom is about a quarter of an inch across. They are produced in terminal branching paniced spikes. Very neat, and well merits a place in the greenhouse.

CORRÆA BRILLIANTA.—The tube-shaped flowers are each an inch and a half long, bright crimson-red, with a large yellow tip. Very pretty. There were several other species and varieties in bloom. The colours we have recently given, and every one of them—white, scarlet, yellowish-white, blush, crimson, and rose—merit a place in every greenhouse. They bloom, too, for many months, which renders them truly valuable.

CYTISUS FILIPES, with a profusion of its pure white pea-formed flowers, on long drooping shoots, had a neat and beautiful effect.

DAPHNE INDICA RUBRA.—This very fragrant flowering plant is very valuable as a winter bloomer. The flowers are tinged with

reddish-purple, similar in size to the old species, *D. indica*. It is well worth growing.

EPACRISES.—*E. autumnalis*; vivid crimson, fine. *E. magnifica*; bright rosy-pink. *E. campanulata alba*; pure white bells, very neat. *E. hyacinthiflora*; rose, very pretty. *E. grandiflora*; an old but fine species; the bushy plant is four feet high, and as much across, and will be in profuse bloom for many months. *E. nivea*; white, bell-shaped, pretty. *E. microphylla*; white, in long spikes; very neat.

ERICAS.—*E. vernix coccinea*; globe-shaped, of a bright orange-scarlet, blooms freely, very pretty. *E. cerinthoides major*; flowers in terminal heads, tube an inch and a half long, of a rich scarlet colour. By stopping the shoots, laterals are produced, and the plant forms a pretty bush; without this attention, it usually grows naked. *E. pel-lucida*; tube one inch, rose and white. *E. gracilis vernalis*; small globe, purple, in vast profusion, neat and pretty. *E. colorans*; white and rose, tube one inch, profuse. *E. blanda*; flesh and purple, tube one inch. *E. vernix*; orange, with green tip, globular, very pretty. *E. cerinthoides alba*; white, with a tinge of rose; when advanced, tube nearly an inch long; very pretty. *E. refulgens*; tube one inch, orange, with green tip; pretty.

LEUCOPOGON LANCEOLATUM.—The foliage is small, very neat, as is the habit of the upright-growing shrubby plant. The flowers are small, but produced in vast profusion, in very long spikes, renders it a charming object. It deserves to be in every greenhouse.

LUCULIA GRATISSIMA.—A tall plant in a tub had borne sixty-five heads of flowers, but was now declining. Their beauty and fragrance entitle them to a place in every greenhouse.

MURATTIA (POLYGALA of some) STIPULACEA.—The foliage is of the small, stiff class, and the flowers are small, but produced numerous, in long spikes, of a bright violet colour. It is a beautiful species, and deserves to be in every greenhouse.

SELAGO DISTANS.—A pretty, fine-leaved, shrubby plant, which blooms in profusion. The flowers are small, but are numerous borne in long spikes. Its blooming so freely during winter, too, renders it increasingly valuable and interesting.

A quantity of beautiful CINERARIAS were beginning to bloom, and a fine show will, no doubt, be kept up till midsummer, or later.

In the Stove.

Many plants of GESNERA HERBERTII and ZEBRINA were in splendid bloom; flowering spikes four feet high. One pot of the former had eight fine spikes. Highly ornamental.

ACHIMENES PICTA.—Numerous pots and tubs of this beautiful species in fine bloom. One had nine flowering stems, three feet high. These and the Gesneras are grown in boxes, or pans, about eight inches deep and eighteen across, in loam, rotten leaf-mould, and a liberal sprinkling of small bits of chareol.

CALLIANDRA TWEEDIA.—Three large plants in beautiful bloom. The elegant tasselled thread-like crimson flowers, in contrast with the Mimosa-like foliage, had a charming effect. This plant for the stove, and the *Inga pulcherrima* for the greenhouse, ought to be in every one.

CYRTANTHERA AURANTIACA.—Heads of flowers like a *Justicia carnea*, but of an orange-yellow colour. Very pretty.

ERANTHEMUM PULCHELLUM.—Fine plants, with three heads of rich blue flowers, had a nice effect. This is deserving of a place in every stove or warm greenhouse.

EUPHORBIA JACQUINIFLORA.—This is an elegant plant when in full bloom; its long branches, ornamented with numerous beautiful orange-scarlet flowers, produce a striking appearance. Each blossom is about half an inch across. It ought to be in every stove or warm greenhouse.

PHAJUS GRANDIFOLIUS (LIMODORUM of some).—Flower-stems three to four feet high; sepals and petals white outside, chocolate inside; labellum white and rosy-purple. A noble species.

PHAJUS INTERMEDIA.—This is not quite so vigorous, but the inside of the sepals and petals are of a deep nankeen colour, contrasting prettily with the outer white, as well as the cream-white and crimson labellum. Very beautiful.

POINSETTIA PULCHERRIMA.—This noble-looking plant, with its rich crimson and purple large heads, have a splendid effect. One or two, placed in a collection of plants, produce a fine contrast with all others.

SERICOGRAPHUS GHIESBRECHTIANA.—This is a most lovely plant, and its fine panicles of tube-formed, rich scarlet flowers produce a charming effect. It is deserving of a place in every stove or greenhouse.

A NOVEL METHOD OF PRESERVING FLOWERS IN BLOOM.

BY MR. H. STILWELL, GARDENER, FROGMORE, NEAR ST. ALBANS.

It is well known that a primary object of the existence of a plant is the proper *maturation* of its seed. This cannot be expected, is a general rule, unless the farina be applied to the stigma of the flower. It has, however, been discovered, that if this impregnation be prevented, the flower will retain its beauty for many days longer than would have been the case had impregnation been effected. To realize the advantage above stated, artificial means must be employed. This is readily accomplished by the removal of the stigma from the flower, as soon as the blossom opens. Even should farina be scattered upon the remaining style, no impregnation would be effected thereby. Such a simple process is very valuable, when it is desirable to prolong the beauty of particular flowers. The flowers of *Pelargoniums*, being so treated, preserve all their freshness and beauty for at least ten days longer than if not done. This fact is not new, but it is not so generally known as it ought to be.

ON SHOWING CARNATIONS AND PICOTEEES.

A CORRESPONDENT to the *Midland Florist* remarks upon the great trial shows of these flowers which took place last season, and suggests the formation of an organized Society, to be called "The National Floricultural Society," or such other name as may be approved. One especial particular should be arranged, viz., a *full report* of each exhibition should be drawn up by the judges immediately after the show has been held, and the good *qualities*, or *defects*, of each variety of flower exhibited, as might appear to them to call for the same, should be given. Also to *support* or *deprecate* the practice or *mode of showing* the flowers according to their judgment. We should then, in course of time, have some data to work upon, so as to bring about one uniform system of exhibiting, the want of which I have felt. Here I beg to call attention to the void which has been left as to the propriety or impropriety of using cards, about which so much was written last Spring, not a word can I find either for or against since the great exhibitions took place, although it was predicted, and hoped for, that those shows was to settle the matter.

As to the mode of showing, very great improvement may, I think, be made. For instance, there should be no *collections* of six, or even two flowers, at such exhibitions; the old maxim, "let every tub stand on its own bottom," should be adopted, as a *sine quâ non*; and *the same variety* should be placed *only once*. This would enable a grower in the most remote corner of the kingdom to form a tolerably correct idea of the comparative merits of the numerous varieties in cultivation; whereas, who can tell anything at all about it from the past exhibitions? There should be an additional class, in which to test *seedlings*; where an *equal number* of blooms of *each variety* should compete, but the above rule be reversed, viz. each should be placed as often as its merits surpassed its rivals. I say "*additional class*," because they should also be allowed to compete with the old varieties, where the number of blooms should be unlimited, and therefore only one would be sufficient, if good; but limited in the other class, to show how much better it is than other new ones.

Some one may object to the first mode, and say it would not be fair to a good variety; but is it not equally unfair for one variety only, and, it may be, the same grower, as at the last exhibition, to sweep the deck at once? Where is the competition of the grower in such a case? It was the variety, not skill, that gained the victory; but the other mode would show both at once. Local societies may very reasonably, in the present state of floriculture, leave it open for the exhibitors to put up such flowers as they have, for the want of more or better varieties; but where a society is formed with such pretensions as "The National" ought to have, there should be the most perfect code of laws, both as to *quality* and *showing*, in order to prove to those who only have the chance of reading the reports, as well as those who actually see the flowers, *which* are best, and *why* they are so.

Many of our humbler competitors cannot afford to get new varieties as often as they appear (and I include myself in this class of culti-

vators), but such as they do possess they may cultivate well, and the above mode of exhibiting would enable all to compete, however small their collection; and there should be scope enough given, by allowing every variety shown to be placed according to its merits. There would be no lack of opportunities for the distribution of the funds, however large they may grow, as there would be fourteen (or, if the scarlet-edged picotees were shown apart from the rose-edged, sixteen) different classes, in some of which there would be upwards of twenty, and perhaps thirty, distinct varieties shown.

Next in order is the (at present) undefined classes of *light* and *heavy*-edged picotees. I have often wondered at, and deeply regretted, the want of decision, or firmness, in judges on this point; particularly when I have seen the *same variety* taking prizes in *both* classes, and that too with blooms *as much alike as two peas could be!* Really, in the middle of the nineteenth century this ought not so to be. Why not say at once, that such only as have a *threadlike margin* of colour will be considered “light-edged,” and there would be an end to the difficulty. To this it must and will come ere long I hope. *Colour* should be left untouched, being a matter purely of taste, and differing in many individuals without their being able to give any distinct reason why they prefer one shade to the other; but it is unpardonable to say that, because the colour is *light*, although *broad*, it should take precedence of a narrow or threadlike marking which is of a deeper colour.

SPRING FLOWERS.—ANEMONE.

“From the soft wing of vernal breezes shed,
Anemonies.”—*Thompson*.

“That veteran troop who will not for a blast
Of nipping air, like cowards, quit the field.”—*Mason*.

“And coy Anemone, that ne’er uncloses
Her lips until they’re blown on by the wind.”—*Smith*.

THE Greeks named this flower Anemone from *Anemos*, the wind, because it flowers both in a windy season and in exposed windy situations.

Rapin, in his poem on gardens, ascribes the birth of the Anemone to the jealousy of Flora; who, fearing that the incomparable beauty of a Grecian nymph would win from her the love of her husband Zephyr, transformed her into this flower. But to this tale he adds an account better authorised, of the Anemone having sprung from the blood of Adonis and the tears of Venus shed over his body; and it is but common justice to Flora to observe that this is the generally received opinion of the origin of the Anemone. Cowley gives it this parentage in his poem on plants. Ovid describes Venus lamenting over the bleeding body of her lover, whose memory and her own grief she resolves to perpetuate by changing his blood to a flower; but, less poetically than some others, he substitutes nectar for the tears of

Venus, not even hinting that the said nectar was the tears of the goddess :—

“ But be thy blood a flower. Had Proserpine
 The power to change a nymph to mint? Is mine
 Inferior? or will any envy me
 For such a change? Thus having uttered, she
 Poured nectar on it, of a fragrant smell;
 Sprinkled therewith, the blood began to swell,
 Like shining bubbles that from drops ascend;
 And ere an hour was fully at an end,
 From thence a flower, alike in colour, rose,
 Such as those trees produce whose fruits enclose
 Within the limber rind their purple grains;
 And yet the beauty but awhile remains;
 For those light-hanging leaves, infirmly placed,
 The winds, that blow on all things, quickly blast.”
Sandys’ Ovid, book x.

“ By this, the boy that by her side lay killed,
 Was melted like a vapour from her sight;
 And in his blood, that on the ground lay spilled,
 A purple flower sprung up, chequered with white,
 Resembling well his pale cheeks, and the blood
 Which in round drops upon their whiteness stood.”
Shakspeare’s Venus and Adon.

The Spanish poet, Garcilasso, attributed the red colour only of the Anemone to the blood of Adonis :—

“ His sunbeam-tinted tresses drooped unbound,
 Sweeping the earth with negligence uncouth;
 The white Anemonies that near him blew
 Felt his red blood, and red for ever grew.”
Wiffin’s Translation, p. 273.

The ancients made this flower the emblem of sickness. Pliny tells us that the magicians and wise men in old times attributed wonderful powers to this plant, and ordered that every person should gather the first Anemone he saw in the year, repeating at the same time, “ I gather thee for a remedy against disease.” It was then devoutly placed in scarlet cloth, and kept undisturbed, unless the gatherer became indisposed, when it was tied either around the neck or arm of the patient.

Some suppose that the Anemone was made the emblem of sickness in allusion to the fate of Adonis, the favourite of Venus, who changed his body into this flower after he had been killed by a boar which he had wounded in the chase :—

“ The flying savage, wounded, turned again,
 Wrenched out the gory dart, and foamed with pain.
 The trembling boy by flight his safety sought,
 And now recalled the lore which Venus taught.

But now too late to fly the boar he strove,
 Who in the groin his tusks impetuous drove :
 On the discoloured grass Adonis lay,
 The monster trampling o'er his beauteous prey.

Yet dares not Venus with a change surprise,
 And in a flower bid her fallen hero rise !
 Then on the blood sweet nectar she bestows,
 The scented blood in little bubbles rose ;
 Little as rain-drops, which flutt'ring fly,
 Borne by the winds along a low'ring sky.
 Short time ensued, till where the blood was shed
 A flower began to rear its purple head ;
 Such as on Punic apples is revealed,
 Or in the filmy rind but half concealed.
 Still here the fate of lovely forms we see,
 So sudden fades the sweet Anemone.
 The feeble stems, to stormy blasts a prey,
 Their sickly beauties droop and pine away.
 The winds forbid the flowers to flourish long,
 Which owe to winds their name in Grecian song."

Eusden's Ovid.

It is related by other mythologists that Adonis was restored to life again by Proserpine, on condition that he should spend one half of the year with her and the other with Venus. This is thought to imply the alternate return of summer and winter. The festivals of Adonis commenced with mournful lamentations, and finished with joy and gladness, which would seem to indicate a belief of his return to life.

The Anemone was held in great estimation by the Romans for the purpose of forming wreaths for the head ; and there is scarce any flower better calculated to be artificially imitated for the purpose of ornamenting the temple of Venus ; for as its flowers are of such various colours, the Venuses of every tint, from the blackest child of Africa to the fairest daughter of Britain, may suit their complexions by wreaths of Anemones.

At what period our ancestors first called this plant by the Greek name is uncertain. Turner writes on it by that appellation in 1568, and observes that " it maye be called in English ROSE PERSELY (Parsley), because there groweth a floure like a single Rose in y^e middle of this herbe, which is very lyke persely in the leaves that are aboute the rote."

That the Anemone was a favourite flower, and sought after with diligence to embellish gardens in the age of Elizabeth, will appear by an extract from Gerard's Herbal of 1597, who says, " The stock or kindred of the Anemones, or winde flowers, are without number, or at the least not known vnto any one that hath written of plants. For Dodoneus hath set forth five sorts, L'Obelius eight, Taber Montanus ten, myselfe haue in my garden twelve different sorts, and yet I do heare of diuere more, differing verie notably from any of these ; euery

newe yeere bringeth with it newe and strange kindes, and euery countrey his peculiar plants of this sorte, which are sent vnto vs from farre countries, in hope to receive from vs such as our countrie yeeldeth."

CULTURE OF DIFFERENT SECTIONS OF ROSES.

BY ROSA.

IN the many excellent observations, on the cultivation of the rose which have appeared, I have frequently observed that the rules, though most excellent in themselves, as applied to many species of roses, have usually been too general, and have proceeded on the principle of considering most species as requiring the same modes of treatment, while the great difference in the habits, nature, places and manner of growth, seem to me to point out important variations in the soil, situation, and mode of cultivation required by many of the different species. I therefore would state some of the differences and places of growth, in a wild state, of some of the species, and the variations they seem to suggest in the culture. Though plants are greatly altered by culture yet they generally retain a considerable *bias to the soil and situation for which, by nature, they are formed*; and it is usually within a certain range only, of what I would call their natural habits, that they are capable of improvement by cultivation.

In taking a cursory view of the difference which there appears to me to be among some of the species of roses, I shall, to make myself better understood, separate the genus into five divisions.

In the first division I place *Rosa spinosissima* and its varieties, the *R. lutea*, *sulphurea*, and *cinnamomea* which, from their slender shoots, small and numerous thorns, and *fibrous roots growing very near the surface* of the ground, are all, I believe, plants in their wild state growing upon *heaths* and places where there is but *little depth* of soil, and are surrounded only by plants of a low stature; they would seem therefore to require to be planted in an *airy* situation, and not to need much depth of soil, as in their natural places of growth they are exposed to the browsing of cattle, and we find them to bear much cutting and shortening of their shoots.

In the second division I include the numerous varieties of *Rosa provincialis*, *centifolia*, *gallica* and *muscosa*. The varieties of these species are so numerous that this division contains the greatest number as well as many of the most beautiful roses; they appear to me to be plants which, judging from their manner of growth, have in their natural situations to contend with high grasses and other strong growing perennial plants; when overpowered by these they, as it were, remove by sending out roots near the surface of the ground which, when they reach a more airy spot, throw up suckers, these exhaust the old plant, and form a new one in a better situation; the roots of this division, though less fibrous than those of the first, yet are so much so, and grow so near the surface of the ground, as not to require either a strong or deep soil.

The third division consists of *Rosa villosa rubiginosa*, *moschæta alba*, *damascena*, and *canina*: the roses of this division have much stronger roots than the others, and strike much deeper into the earth. The place of their growth in their wild state is among large, strong growing shrubs and trees: they therefore require a much stronger and deeper soil, and a less airy situation than the two former divisions, and they do not need nor bear so much pruning of the shoots.

The fourth division consists of *Rosa avensis*, *sempervirens*, *Banksiæ*, and *multiflora*. These roses, in their natural state, trail along the ground, or support themselves by bushes growing near them, they therefore do not require a very airy situation.

The fifth division consists of *Rosa semperflorens* and *indica*. The sudden and rapid way in which these roses send forth their shoots immediately on a change of cold to heat, points them out as growing in their wild state on mountains covered with snow a part of the year, and like other natives of such places, with rapidity, taking advantage of an interval of warmth to grow, bloom, and ripen their seed.

ON PROLONGING THE FLOWERING SEASON OF CAMPANULA PYRAMIDALIS.

BY MR. THOMAS DOWELL, OF AMINGTON HALL.

WHEN properly managed the *Campanula pyramidalis* is one of the most charming ornaments of the floral tribe, especially when grown in pots, either for the summer ornament of the greenhouse, sitting-room, verandah, or terrace. I find many previous testimonies to the same purport are recorded in the volumes of this Magazine. There are, too, particular directions given as to the method of treatment by which specimens of extraordinary size and beauty have been produced. Such being the case I do not think it necessary that I should here enter upon the same ground. There is, however, one particular which will give even additional interest and value to this fine blooming plant, viz. to extend the period of its floral display. This I am glad to state can be done, and as it is said "great effects result from little causes," by the following very simple process:

In the year 1849 I had a fine plant which commenced blooming in July, and its season of great beauty was extended up to Christmas. This was effected by regularly cutting off the decayed flowers, so as to prevent the production of any seed. As above remarked, the plant made a *fine display* until Christmas, and even in January and February 1850 it had some blossoms. The operation is easily done, and the result will most amply repay for the attention.

NEW MODE OF PROPAGATING HERBACEOUS PEONIES.

BY M. DUVAL.

[In Van Houtte's *Flora des Serres*.]

OVER a tuft of Peony, with herbaceous stems, place a box or pot without a bottom; fill the box or pot up with well-worked vegetable

mould; the stems have then to make their way through this earth before they can produce any flowers. If the height of the box or pot is from thirteen to fifteen inches, it is of no consequence; the stems always rise through this thickness, and always attain the height fixed for them, and then develop their flowers. The soil should be kept damp all the summer, in order that roots may be formed in a proper way. Towards November or December, the stems may be cut off flush with the bottom of the box or pot, for they will be found furnished with roots throughout their entire lengths. The same stems may be cut into lengths, and each length, having a bud and some roots, will, if placed in well-worked soil, produce a new plant. In planting these lengths, each should be covered with earth about two inches deep, so that the plant may draw nourishment from the soil, and not be killed in frosty weather. In this way the stems of the double-flowered *Pæonia officinalis*, which are commonly annuals, become perennials, by the absence of light, and the obstruction artificially applied to their growth. All my experiments have been made on this plant, but I am convinced that similar results could be obtained from others of like nature. Although the common Peony is exceedingly hardy and strong in constitution, no mode of multiplying it has been hit upon, except by dividing its roots, which greatly disorders the course of its vegetation. By the new process, many plants can be obtained, and the large roots of the original one remain undisturbed. Propagation by dividing the great roots is exceedingly easy, for each piece carefully treated gives in time a plant; but the plant thus obtained does not bear any flowers for the first three years, after which time development proceeds rapidly; the new process above described is much quicker. Chinese Peonies, which have been hitherto universally propagated by the division of their under-ground stems, may, I have every reason to believe, be multiplied in the new way.

The common purple Peony and its varieties are often planted in the most unsuitable situations; they are put under trees in large parks, or in clumps in pleasure-gardens; their stems are consequently poor, and their flowers not half so large as they should be. Placed in proper situations, the common height of the purple Peony and its varieties is about three feet. In order that a tuft of Peony may grow well, it should occupy a circumference of two yards, and be placed where the gardener's spade can never wound its roots. The plant likes to be left alone and undisturbed; it does not like to be placed near other plants with long roots which internix with its own, and deprive them of the moisture they require. It is only when these conditions are observed that fine Peonies are produced; if they are put under the shade of a large tree, their stems are weak, and are beaten down by the first storm of wind and rain. The space of two yards may seem unnecessary in the eyes of many amateurs, but let them recollect that it will soon be filled by stems themselves a yard long, and which spread out from a common centre; besides the roots are longer than the stems, and ought not to be interfered with.

There used to be, many years ago, in M. Molé's park, at Méri-sur-Oise, a horse-shoe plantation of clipped Yews. Between each Yew

there was a Peony; there was plenty of room for the growth of the Peonies, they had plenty of air and light, were never disturbed in any way, and bore magnificent flowers, which produced a very fine effect. I have never since seen so beautiful a plantation.

The ground intended for Peonies must be well dug and loosened at least three feet deep, so that the roots, which spread in every direction, may act freely and for a long time; for these plants will continue to flourish for forty or fifty years, without showing any symptoms of decay, provided always they are never disturbed. The Peony is one of the few plants not attacked by grubs and insects; this is true of all its varieties. The earwig alone is sometimes found among the petals; but they do not stay long, as the first fall of rain or heavy dew causes them to decamp.

What we have said about the preparation of the earth is of special importance when we are dealing with the Chinese Peonies, for their roots are as long again as those of the common variety, and their stems cannot acquire their proper height; nor can their flowers attain perfection unless there is a plentiful supply of nourishment. *Pæonia edulis* requires peculiar attention, for its stems naturally grow three, four, or four and a half feet high.

Peonies are extremely useful for decorating gardens, as the quality of the soil is not of great consequence, and the beauty and odour of the flowers are of the highest degree of merit.

BRIEF REMARKS.

POINSETTIA PULCHERRIMA.—All who have a stove should cultivate this plant, whose beautiful floral leaves or bracts create a gay appearance for about three months during the dullest time of the year, and even a small piece introduced into a bouquet is sure to be admired. When I cut down an old plant, in January or February, I select for cuttings those portions on which the eyes are placed rather closely together, and make them into lengths of about a foot, each having six eyes. I insert the cutting over the two lowermost eyes into a tan bed, in which pine-apples are grown. The eyes above the tan will generally all have pushed by about April, and by that time roots will have been sent out from the lower eyes. I then take the plants up carefully, and pot them, shading them from the sun for a week or so; when they have become well established in the pots, or about Midsummer, I pinch the tops off the young shoots, which induces them to double their number, each shoot breaking at the two uppermost eyes. I now encourage them to grow vigorously by giving them plenty of heat, air, water, and root-room. I pot them in a mixture of loam, peat, and manure, in equal parts, and keep them growing on until November, when they begin to show their bright crimson bracts, and they remain objects of great attraction during the winter. I have a plant at the present time with eight heads, or bunches, of red leaves on it, each head measuring from 12 to 20 inches across. The temperature I grow it in varies from 55° to 70° in winter, and from 65° to 90° in summer.—*I. Rust, Pushley, Ticehurst.*

OXALIS BOWEI.—It has been stated that this *Oxalis* should be protected from frost. I have grown it, at Nettlecombe, for these last sixteen years, without any protection whatever. The bed was prepared in the following manner:—The earth was removed to the depth of two feet. I then introduced eight inches of drainage, laying on the top of it a layer of fresh turf, with the view of preventing the soil filling up the interstices. I then filled up the bed with equal parts of well-rotted, turfy loam and leaf-mould, intimately mixed together. In May, I turned out the plants, and placed them so that the bulbs might be three inches below the surface. Thus circumstanced, I have never found them to receive any injury, with the exception of the foliage being destroyed by frost. They flower beautifully every autumn.—*Charles Elworthy, Nettlecombe Gardens, Somersetshire.*

HEATING.—I had lately occasion to pass through Guildford, where I saw, in Mr. Penn's shop, in High-street, a model of an excellent heating apparatus for horticultural purposes. It consists of an open tank for bottom heat (or close if required), which sends up a congenial heat, and at the same time warms a range of pipes round the top of the bed. It was heated by means of a jet of gas, and its action was perfect. The amount of fuel required must be trifling, for the boiler was not more than five inches in diameter, and it was set so as to be nearly enveloped by the fire. I understood Mr. Penn to say that he had erected many in the neighbourhood. One gentleman, I know he told me, had three. I had no time, or I should have examined one of them; but I am so satisfied with the contrivance that I intend to give it a trial.—*Charles Phillips, Ealing, Hants.*

CAMELLIAS.—These fine plants flourish best in a compost of equal parts of turfy loam and peat, with a sprinkling of sharp sand. The soils not sifted but broken, and a free drainage. To restore sickly plants, early in spring, before they begin to push, turn the plant out of the pot, shake the soil away, prune any diseased roots, and if the top be weak, or straggling, cut back the shoots proportionately, and re-pot in one just large enough to admit the roots conveniently, and use a little more peat than loam in the compost, and a little extra sand. Let the plant be plunged where it can have a little bottom heat, and water sparingly till it begins to grow, and then gradually to increase.

After Camellias have done blooming, and just before the shoots push, re-pot them, and let them have an increase of warmth and moisture whilst forming new wood, it will be vigorous, and yet well ripened, which is essential to secure a due supply of flower buds.

To increase Camellias, budding, grafting, and in-arching are adopted, In-arch in spring, just before the shoots push. Bud when the new wood has become firm, and graft the first week in September.—*A Practitioner.*

CAMELLIA FLOWER-BUDS DROPPING.—“An old subscriber has purchased at a sale two dozen plants, well set with flower-buds, and now they are dropping off: what remedy can I use to prevent the disaster continuing?”

(Probably the plants have only had a little water given that sunk only an inch or two deep, and the rest of the ball be quite dry; or, if

watered often in previous treatment by some one ignorant of the proper cultivation, they may have been soddened by watering: this will cause the buds to drop; and if there be a vast quantity of flower-buds they will, if in clusters, push off a surplus. Camellias, so set with buds, should have a thinning at an early stage; and water, just to keep the *whole* of the ball *moist*, must be given at *each* watering.)

CINERARIAS FOR WINTER BLOOM.—Early last June I sowed some seed, potted off the plants as soon as strong enough, and re-potted them as they required it during the subsequent period. I placed them in a shallow pit-frame, and early in October a number of them were in bloom, I removed them into the greenhouse, and others into a breakfast-room, and since that time I have had a constant succession in profuse bloom, and apparently shall have till next May.—*Juvenis*.

EPIPHYLLUM TRUNCATUM AND ITS VARIETIES.—“I consider that these ought to be brought more into notice than they are at present. If we take into consideration their time of flowering, along with the beauty of the blossoms and the graceful appearance of the plants, we must come to the conclusion that, as a whole, we have little to equal them during the dark days of winter. What have we better for decorating our conservatories and drawing-rooms throughout November, December, and January? By exciting some, and retarding others, I can have a prolongation of bloom during these comparatively flowerless months.”

“The method I adopt to insure success, as regards their treatment, is as follows: I grow none on their own bottoms; they are all grafted on *Cereus speciosissimus*, which I consider a better stock than *Pereskia aculeata*, as the grafts are not so liable to be outgrown by the stock on the former as on the latter. It is said that *Cereus triangularis* is best of all stocks. Select some clean healthy plants that have been struck from cuttings the previous year for stocks. In March introduce them into a stove or pit where there is a heat of from 50° to 70°. When they show signs of growing, with a sharp knife make incisions in the angles alternately all round from four to six inches apart, and place one graft on the top, fastening it with a spine of the stock, and proceed in the same manner with the sides. Some bore a hole with a gimlet and insert the scion into it. I prefer the grafts from one-year-old shoots, they require nothing farther than shading, and keeping rather close for a month or six weeks. In the course of two months they will begin to show signs of growing, then give them more air and light, and keep the stocks divested of all suckers as they appear. As regards height, they may be from one foot to six, that all depends upon taste and convenience. A plant grafted one foot high will form a handsome bush, two or three feet across, hanging over the sides of the pot, and supported with a wire trellis underneath; cylindrical trellises are the best for showing tall plants to advantage. As regards culture, presuming the plants have done flowering, and are stored away on a shelf in the greenhouse, or any other convenient place, free from damp, and kept rather dry at the roots, they will require nothing more till about the middle of March. Then they must be brought to the potting-shed and re-potted; this operation requires to be performed

very carefully, as the shoots are easily broken. The soil that I find best suited for them is two parts decayed turf, one decomposed cow-dung, and one river sand, or, what is better, the grit that is washed by the rain on the sides of turnpike roads. These well incorporated, together with a little leaf-mould and some pieces of charcoal, make a suitable compost; the pots must be well drained, three inches at least for large plants. Then proceed to shift them very carefully, by rubbing part of the old mould away, and pressing the new rather firmly among the roots; re-adjust the trellises, and the work is completed. Afterwards place them in a gentle bottom heat, either in a stove or pit, and give a good watering, allowing the thermometer to range from 50° to 70°; giving them a syringe in the morning when there is an appearance of a fine day, and they will soon start into growth. Then light, air, and moisture are beneficial to them at this stage, frequently turning the plants, so as to balance them on all sides; give manure water once a week when they are in a growing state, and regulate the young shoots; pinch some out where they are coming too numerously, in order that the plants may be equal on all sides. After they have made their growth, or towards the end of July, remove them to a greenhouse, or cold pit, for a short time, preparatory to placing them out of doors; withhold manure water at this stage, and keep them rather dry, in order that the wood may get thoroughly ripened; they will require protection from wind and rain; place them on coal ashes in a south aspect, at the bottom of a wall or hedge, till they have set their flower buds. Towards the middle of September, remove them to a light airy place in the greenhouse, and introduce them into the stove or forcing pit, in succession, as the demands of the family may require. I have proved by this management that there is no difficulty in getting them to bloom freely. By paying attention to a few minor points, as regards their rest and growth, they will more than amply repay the little labour bestowed upon them. Before the bloom expands, remove them to a cool place, in order to prolong it, and enrich its colour.—*D. H., Cirencester.*

TREE PEONIES.—Dr. Lindley has separated the Tree Peonies from the genus *Peonia*, on account of the tough leathery coat which is drawn lightly around their carpels, allowing nothing but the stigma to project; this organ, properly referred to what botanists now call the disk, has no existence in the true Peonies; “it is, in all probability, an innermost row of abortive stamens, the filaments of which are united into a cup, while the anthers refuse to appear.”

The new genus is named **MOUTAN**, and the common species *M. officinalis*. Also, the annual branching Larkspurs are no longer to be called *Delphinium*. Dr. Lindley proposes to re-establish Bauhin’s old genus *Consolida*, the grounds of separation being thus stated. “Its petals being reduced to two, and these completely combined into one, remove it from *Delphinium*. The old genus *Consolida* should, therefore, be re-established.”

THE MA-AN-GA ROSE.—Knowing the interest you feel in the science of Horticulture, I have taken the liberty of inclosing a specimen of wild double Multiflora Rose that grows in this country. It was discovered by a young Wyandotte girl, whose perception of the

beautiful is a source of admiration to me. As I had never seen a double wild Rose, and not recollecting that any were described in the books, I thought it might prove a valuable contribution to the flora of our country, and therefore determined to forward this specimen to you, and, if a new variety, through your present to the Horticultural Society of Cincinnati, a Rose bush in the spring, when it can be transplanted without hazard. I so much doubted its growing wild that its graceful discovery piloted me through the prairie to the spot three days ago. There, on the point of a ridge, in a space not more than 20 feet square, they were climbing over undergrowth, making the wilderness indeed blossom like the Rose; but to me its situation was most curious, from the fact of its being surrounded, on the declivity of the elevation, by a wilderness of the single wild Rose and Pea Vines. A lively imagination might fancy the ridge to be the burial place of some of the aborigines, thus decorated by pious hands long since mouldered into dust. Should this prove a new variety, I would be glad that it should perpetuate the name of its graceful discoverer, *Teche Nehame Ma-an-ga*, which the United States interpreter tells me may be rendered into English, *The Rose of Wyandotte*. *Me-an-ga* is an epithet of endearment, meaning bright looking. I called at her mother's cottage, and found their garden filled with beautiful wild flowers, and flowering shrubs, collected by the daughter. One shrub with its long spikes of pale yellow flowers and graceful, fairy, locust-like leaves was very pretty, but her hedge of wild Roses excited most intense admiration. There is a cluster now lying before me, on which there are twenty full blown Roses and eight buds; they have been in bloom since June 15.—*Cincinnati Horticultural Review*.

THE HORTICULTURAL SOCIETY MEETING, held in the Rooms in Regent Street, 18th February.—Mrs. Lawrence, of Ealing Park, sent a charming collection of Orchids, for which a Banksian medal was awarded. It consisted of a nice specimen of the long-tailed Lady's Slipper (*Cypripedium caudatum*), the handsome Lycaste Skinneri, *Cœlogyne cristata*, the white-blossomed *Odontoglossum pulchellum*, *Cyrtochilum hastatum*, the yellow *Oncidium Cavendishii*, and cut specimens of *Heliconia Braziliensis*. From Mr. Ingram of the Royal Gardens, Frogmore, came an exceedingly handsome *Begonia manicata*. It could not have measured less than three feet high, and as much through, and it was loaded with blossoms which had, however, suffered considerably from travelling. The same establishment also contributed three seedling *Cyclamens* in the way of *persicum*, beautifully grown and flowered. A Banksian Medal was awarded for these and the *Begonia*. Messrs. Lee, of Hammersmith, furnished a small example of *Rondeletia* (*Rogiera*) *thyrsiflora*, which promises to be useful. Mr. Cole, gardener to H. Collyer, Esq., of Dartford, sent the Nerium-leaved *Allamanda*. This proves to be a smaller flowered kind than the old *A. cathartica*; but it is nevertheless handsome, and well deserved the Certificate of Merit which was awarded it. Mr. Gaines, of Battersea, contributed *Centradenia floribunda*, and *Rondeletia thyrsiflora*. Mr. Kinghorn, gardener to the Earl of Kilmorey, exhibited two beautiful seedling *Epacris*s. One, named *Kinghornii*,

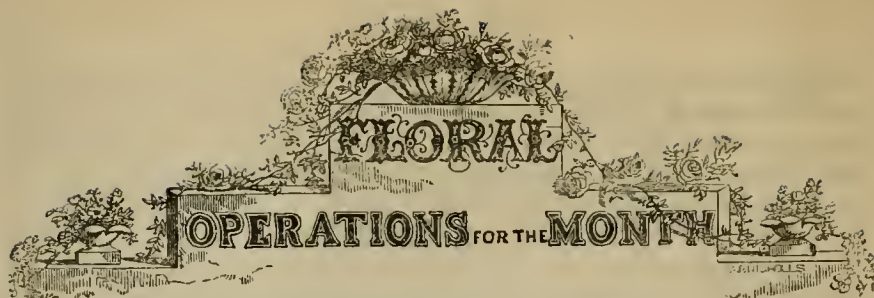
was white; the other, *grandiflora rubra*, was red, tipped with white. A Certificate of Merit was awarded for the white one. From Mr. Hamp, gardener to J. Thorn, Esq., of Mawbey House, South Lambeth, came a large plant of the Tankerville Phajus, and a handsome Camellia tree (*C. tricolor*) some seven feet high, loaded with flowers and flower-buds. A Certificate of Merit was awarded for the Camellia. Blooms of two Rhododendrons, and the Corsican Hellebore, were furnished by the Hon. Fox Strangways, from Abbotsbury, in Dorsetshire. Mr. Tye, of Birmingham, exhibited six Hyacinth bottles of various colours, and furnished with convenient wire supports for the flowers. These are handsome clever contrivances, and if cheap enough cannot fail to be universally approved of. From the Garden of the Society came three species of Acacia, eight varieties of Epacris, *Styphelia tubiflora* (a useful winter and early spring flowering shrub), the two-coloured *Corræa*, a Cape Heath, the useful winter plant *Selago distans*, the sweet-scented *Pittosporum undulatum*, and *Galanthus plicatus*. The latter only requires to be known to be generally cultivated, for it is a great improvement on the common Snowdrop in point of size. The same establishment also furnished the following vegetables:—*Navet jaune de Finlande*.—Seeds of this were received from M. Vilmorin, of Paris. It appears to be a variety of the Malta Turnip. *Variiegated Plumage Kale*.—This is used for garnishing; but it is also much esteemed by some, when it is cooked like a winter Green. *Corn Salad*.—This is the common Corn Salad, which is now more used than it has been in this country; but it is likely to be superseded by the Italian Corn Salad, *Mâche d'Italie*, seeds of which are now amongst those that are distributed to the Fellows of the Society.

CULTURE OF *T. PENTAPHYLLUM*.—This plant I find to grow freely if allowed a large degree of pot room, and to be kept in a very airy place in the greenhouse. I find it to do still better, to turn it out, if the plant be moderately strong, into the open border in a warm situation. I have a plant at the front of a greenhouse that is trained to three stakes, and densely covers them to the height of nine feet, having many thousands of its charming green, velvet, and red flowers.

The soil is a good rich loam and peat, half a yard deep, upon a gravelly substratum; I have supplied it freely with water during dry seasons.

At the end of November the top generally dies, I cut it off near to the ground, and cover the same with some dry straw chaff; this is laid six inches deep; over this I place a large milk pansion, which shoots off all wet, keeps the root dry, as well as contributes to keep it from injury by frost. At the return of spring the tuber pushes freely; and during the months from July to November the plant is a perfect picture of beauty and interest.

I have not had occasion to renew the soil of the border where the plant has grown four seasons, but when it is indicated necessary by the condition of the plant. I shall take away the old soil in Spring, nearly to the tuber, replace it by fresh loam and peat, but not to disturb the tuber at all.—*A Country Curate*.



IN THE FLOWER GARDEN.

THE last month's Calendar contains many things that will require attention now: we refer our readers to it. Shrubs requiring increase by layers may be done now, in a similar way as to the Carnation; some of the tough-wooded kinds do well by having the branch twisted at the part where the cut in laying would have been made. All perennial and biennial border plants to be increased should be parted at once. Add fresh loam, leaf-mould, rotten dung, &c., to beds, before sowing seeds or re-planting. Now decide upon the arrangement of plants for beds of the flower-garden, in order to give plenty of time to prepare a stock of those required. Hardy annuals, to bloom early in the summer, may be sown in sheltered situations. Finish pruning Roses. Take especial care to provide plants of every class required for bedding out on lawns, flower-gardens, &c. German Asters, Geraniums, Stocks, &c., sow immediately.

FLORISTS' FLOWERS.—At this time *Auriculas* and *Polyanthuses* will have commenced growing; admit air on all favourable occasions. Manure water should be given once a week. Sheep's-dung, put into a tub, and soft water poured upon it, in quantity so as it forms a strong liquid, is very serviceable. The dung must be collected for a few weeks before using. Old cow-dung will also answer the same purpose. Sow seeds of above.

Anemones and *Ranunculuses* must be finished planting immediately. If no bed has been prepared for them, it may be made by taking out the soil to the depth of fifteen or eighteen inches, and replacing it at the bottom with a layer three or four inches thick of cow-dung, and filling up with soil composed of *decayed* turfs taken from a loamy pasture. Such as were planted in the autumn will now be making their appearance above ground. It is very necessary to keep the soil closed firmly round the crown of the plant; when this is neglected the bloom suffers. *Tulips* require continued attention, as directed last month. Any that happen to be affected with canker will appear sickly; the roots should be examined, and the damaged part 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. If by any casualty the plants are frozen, then, early in the morning, sprinkle the tops over with cold water, and keep them covered over for an hour or so before they be exposed, as the sun must not be allowed to shine upon them until the frost is all out. *Carnations* and *Picotees* may, at the end of the month, receive their final shifting. The pots known as No. 12's are the size usually employed. In potting, place at the bottom two inches deep of crocks, to give free drainage. Use a compost—which is best if it has been previously prepared and become well incorporated

together—of these proportions: two barrows full of fresh yellow-loam, three of well-rotted horse-dung, and half a barrowful of river sand, well mixed: plant in it *without sifting*, by breaking very well with the spade. Place the plants in a sheltered situation out of doors, and let them be carefully looked after. Where frost has disturbed the roots of *Pansies* in beds, they should be pressed into their places, and a top-dressing of rich mould given to them, all over the bed. They *must be* screened from cutting winds by fir, yew, or whin branches. In forming new beds the situation must be where there is the benefit of free air. Plants in pots, under glass, will require shifting into larger sizes, for as this is the period when they begin to grow, they will soon become weak, and bloom out of character, if confined in small pots. If beds of *Pinks* were not planted in autumn, early in this month they may be. In removing the plants, whether out of pots or open ground, be careful to retain all the ball of roots, and as uninjured as possible. Protect beds from cold easterly winds.

IN THE FORCING STOVE.

Sow seeds of any tender and half-hardy annuals that have been omitted. Sow liberally of *Cinerarias* and Chinese Primroses, for if the plants be properly attended to, they will produce a fine bloom for autumn. In watering tender annuals, &c., it must not be 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 tepid water. Annuals sown in frames—*Cockscombs*, *Balsams*, *Thunbergias*, &c.—if large enough to pot, should be in 60-sized pots.

Sow seeds of *Dahlias*, *Fuchsias*, *Petunias*, *Verbenas*, &c., as soon as possible. Seeds of most greenhouse plants will do well if sown now. *Dahlias* propagate. Re-pot and forward *Amaryllises*, *Gesnerias*, &c., as directed last month. *Ipomeas*, *Echites*, and similar plants, may be trimmed in, disrooted when necessary, and brought here to excite early growth.

IN THE GREENHOUSE, &c.

Continue to admit all air possible. Re-pot the various inmates, as required, from time to time, and examine to see that the drainage is free. Supply *Cinerarias* with manure water occasionally. Save them from green fly; smoke or tobacco water must be applied at the first attack by the pest. Pot off seedlings, &c., for successive bloom. Immediately stop the shoots of *Pelargoniums* which are to bloom from June, in order to induce new lateral ones. Let *Pelargoniums* have plenty of air, but close up early in the afternoon. Syringe overhead twice a-week after shutting up. In watering give enough to moisten the entire soil.

Cupheas, *Calceolarias*, *Verbenas*, *Petunias*, and other young stock, intended either for decorating the flower-garden or to bloom in pots, must, as growth advances, have the shoots stopped, which will cause them to be bushy. *Fuchsias* require similar attention, forming cuttings of the young shoots.

Camellias exhausted with flowering, should now receive a little extra attention. Our practice is to remove them to a cooler situation for three weeks, on the principle of slow breaking, and to give the root a chance of overtaking, in some degree, the expenditure which has taken

place in the system. Any pruning necessary is performed at this juncture; no plant can succeed better, after judicious pruning, than the Camellia.

See that *Lilium speciosum*, &c., are not saturated by watering. Let the Azaleas be re-potted, and they must be pushed on by additional warmth: an increase of pot-room contributes to vigour.

REVIEW.

Tyso on the Anemone. (Published by Jackson and Walford, St. Paul's Churchyard, London, and may also be had of the Author, Wallingford, Berks.)

Most of our readers are familiar with the name of the respected author. He has long been known as one of the most extensive growers (and probably the best cultivator) of the lovely tribe of Ranunculuses: he is also equally celebrated for successfully cultivating the charming companions to the above, viz., the double-flowered Anemonies. The excellent pamphlet on the culture of the *Ranunculus*, which he wrote two or three years ago, was much appreciated, and the one now issued on the *Anemone* will be found to contain all that can be wished for on the successful treatment of those handsome blooming plants. It embodies the particular treatment pursued by a clever practical cultivator of these and all other florists' flowers. The following is a specimen of its utility:—

“*Soil.*—The soil should be a friable loam, in which gritty particles abound. Decayed turves form an excellent basis for compost. The manure to be added should be vegetable in preference to animal, and be incorporated with the soil, rather than deposited in a layer below the tubers.

“*Time of Planting.*—There are two seasons for planting, viz., the middle of October and the end of January. The early vegetation of such roots as are left in the ground would intimate that the former is the most *natural* season; and, undoubtedly, October planted tubers make stronger plants, throw up more flower buds, flower earlier, and, when the season is favourable, mature finer blossoms than those that are planted in spring. The main drawback is, that the blossoms expand before frosts have ceased, and hence a larger amount of care and protection is requisite. A bed planted the first week in October, 1849, was in beautiful bloom the 12th of May, 1850; and on the 16th of that month, the thermometer only a few yards distant registered 25 degrees, which would have ruined the blossoms had they not been sheltered.

“*Planting, &c.*—Make a bed of your prepared compost in a sheltered spot in the garden, where the subsoil is pretty well drained: 3 feet 4 inches will be found a convenient width, and at least 15 inches in depth. Protect it from heavy rains, so that it be tolerably dry when required for planting. Rake the surface level, and mark the bed in cross rows. Plant five roots in a row, which will allow 6 or 7 inches apart. As the tubers are varied in form and size, the hand or a trowel should be used to make the holes, 2 inches deep, and large enough to admit the root to rest evenly on the soil; avoiding much pressure, as the limbs of the tubers are often slenderly attached to the crown, and are easily broken off.”



1. *Eucharis umbata*
2. *Caesonia manicata*



FLORICULTURAL CABINET

APRIL, 1851.

ILLUSTRATIONS.

PHARBITIS LIMBATA.

MESSRS. ROLLISON imported this very beautiful species from Java. We saw it in fine bloom in their collection of plants. It is a *half-hardy annual*, requiring similar treatment to the common Thunbergias. It is a charming object for the greenhouse in summer, and no doubt it will flourish against a good-aspected wall, trellis, pillar, or verandah during that season: Messrs. Rollison consider it to be quite hardy enough. It grows very freely, blooms profusely, and bears abundance of seed. It merits a place in every likely situation, and from what we have seen of it, we believe it will thrive where the Major Convolvulus will, and with the same treatment, after being turned out into the open ground. The plants should be raised early in the season, in pots, and then be turned out in May, where so required, or, being duly repotted, be kept for ornamenting the greenhouse, &c., in summer. Trained to wire frame-work, of any form, it will be a very interesting object.

TACSONIA MANICATA.

This very superb-flowering plant was introduced into this country by the Horticultural Society. The Society's collector of plants discovered it growing in the hedges near the city of Loxa, in Peru. It grows very freely, and is what is generally termed a climbing plant, and when it has room grows very extensively. The Horticultural Society, with their usual liberality, distributed plants of it. A very fine specimen of it is growing in the conservatory of A. F. Slade, Esq., at Chiselhurst, from whence we received it. This plant blooms most abundantly, and the gardener informed us that nothing equals it in brilliancy and beauty when in full bloom, it being literally loaded with flowers. This fine plant deserves to be in every conservatory and greenhouse, where it flourishes either to cover a trellis, wall, pillar,

&c., and, with proper management, a suitable wire-work frame. It is considered to be the finest greenhouse climber, and the striking account given us by the excellent gardener at Mr. Slade's is confirmatory of the fact. This species is easily cultivated, requiring plenty of root-room. A compost of equal parts of turfy-loam and peat soil, with a liberal drainage, suits well. When it grows vigorously, the branches must be trained horizontally in proportion, to check the growth. If the shoots be very numerous, some of them must be cut away. Due care to training neatly will be requisite. Its splendid display most amply repays for every attention. Grown in contrast with the *Tacsonia princeps*, *grandis*, *mollissima*, and *pinnatistipula*, would produce an interesting sight.

NOTES ON NEW OR RARE PLANTS.

DEUTZIA GRACILIS. SLENDER.—A native of Japan, growing naturally two yards high, its branches being long and flexible. The leaves are small, oval, tapering to a point. The main branches are covered with small side branches, each having a terminal raceme of graceful white flowers. A blossom is about half an inch across. This charming species is in the establishment of Mr. Baumann, of Ghent. There is a plant in our own country called *D. gracilis*, but its true name is *Callicarp Murasaki*. The true species is only to be had (now) of Mr. Baumann. It deserves to be in every shrubbery.

DOMBEYA VIBURNIFLORA.—It is a native of the Comerin Islands, near Madagascar, where it forms a fine tree. One plant of it is in the stove at Kew, which is five yards high, and has a large bushy head. The leaves are large, heart-shaped, three-lobed. The flowers are borne in terminal corymbose heads, five inches across. Each blossom is five-petalled, an inch across, white. (Figured in *Bot. Mag.*, 4568.)

ECHINOPSIS CAMPYLACANTHA (Syn. *Cereus leucanthus*).—Discovered at the foot of the Andes mountains. Several plants, about a foot high, are in the Cactus stove at the Royal Gardens of Kew. The form is nearly globose. The spines are about three inches long, curving inwards. The flowers are produced at the summit, each about six inches long and three across, of a pale rose colour. (Figured in *Bot. Mag.*, 4567.)

FUCHSIAS.—Smith's *Seddonii*: flower of medium size; tube and sepals rosy-flesh colour, slightly tipped with green; corolla violet-purple. Banks' *Voltigeur*: tube and sepals red, corolla purple; the sepals curve back much, very like *Scarletina reflexa*. Banks' *Expansion*: tube and sepals white, tinged slightly with rose; corolla rosy-red; flower stout, medium size, the sepals spreading out horizontally. (Figured in *Magazine of Botany*.)

MEDINILLA JAVANENSIS.—From Java. A stove shrub, of the *Melastomaceæ* order. The flowers are borne in short terminal panicles. Each blossom is nearly an inch across, of a pale flesh colour, and the

anthers, of a very dark purple, produce a pretty appearance. (Figured in *Magazine of Botany*.)

PASSIFLORA PENDULIFLORA. DROOPING-BLOSSOMED.—From Jamaica. A plant has bloomed in the Royal Gardens at Kew. The flowers are drooping, of a yellow-green; each blossom about two inches across. It is a stove plant, and blooms freely. (Figured in *Bot. Mag.*, 4565.)

PLEIONE LAGENARIA. THE BOTTLE.—A *terrestrial* Alpine herbaceous plant, a native of northern India. Some of this genus have been incorporated with the Epidendrums. The flower just rises (singly) out of the pseudo-bulb. Each blossom is four inches across. Sepals and petals narrow, two inches long, of a rosy-lilac colour. Lip same colour outside, an inch and a half long and an inch across. The margin of the mouth white, with crimson stripes.

PLEIONE MACULATA. THE SPOTTED.—A *terrestrial* Alpine herbaceous plant, also a native of northern India. Sepals and petals broad, two long, white. Lip an inch long, and nearly as much across; white ground, with bright crimson-crested stripes at the margin of the mouth. The interior of the tube of both this and the former species is yellow. Very beautiful and interesting. Mr. Lobb found them on the Khasija Mountains, and sent them to Messrs. Veitch. (Figured in *Paxton's Flower Garden*.)

POLYGONUM BRUNONIS.—A hardy herbaceous plant from Nepal, of the order of Buckwheats.

POLYGONUM VACCINIFOLIUM. THE BILBERRY-LEAVED.—Both this and the former belong to the same tribe as our wild *Persicaria*. The flowers are in spikes, of a rosy-red and brown colour. Adapted for rock-work, being dwarf, and somewhat trailing. In the Chiswick Gardens. (Figured in *Paxton's Flower Garden*.)

SOBRALIA SESSILIS.—This is a *terrestrial* orchid, from British Guiana. Flower stems half a yard high, reed-like, terminating with a solitary flower. Sepals and petals nearly white; lip, the tube portion a rosy-purple outside, the inside yellow, terminating in white, with a rosy-fringed margin. (Figured in *Bot. Mag.*, 4570.)

THIBAUDIA MACRANTHA. LARGE-FLOWERED.—A very beautiful flowering evergreen stove plant, which Messrs. Veitch's collector sent from Kola Mountain, Moulmein, East Indies. It is a rather straggling shrub, with brown bark and pretty lance-shaped leaves. The flowers are produced from the woody portion of the stem, two or three arising from the same point; they are drooping. Each flower is nearly two inches long, tube-shaped, and the tube widest at the middle, which at that part is nearly an inch through. The blossom is of a pure china-white, yellow at the lower part and at the top rim. The tube is five-angled, and each angular space is beautifully marked with red lines, generally taking the form of the letter V, and the lines more or less united. The flowers are exceedingly pretty; the texture and marking resemble a handsome piece of china or porcelain. It is a most lovely plant when in bloom, and although Messrs. Veitch have it in the stove,

it is a very likely plant to succeed in the greenhouse too, keeping it in the warmest and most moist situation therein. (Figured in *Bot. Mag.*, 4566.)

VERONICA ANDERSONII.—This is a very pretty variety, raised by a gentleman at Maryfield, near Edinburgh. It was produced between *Veronica salicifolia* (*V. Lindleyana* of some) being impregnated by *Veronica speciosa*. It appears to be just intermediate between the two, having broader leaves than *salicifolia*, but narrower than *speciosa*. The spikes of flowers are white at the lower part, and of a rich violet above. It is a charming plant, well worth possessing. (Figured in *Paxton's Flower Garden*.)

WAHLENBERGIA VINCEFLORA (or *Campanula vincæflora*).—A pretty hardy *perennial* plant; but to keep it through winter it must be taken up and be placed in the greenhouse. It, however, seeds freely, and may be treated in all respects as a hardy annual. It will bloom freely during the entire summer. The flowers are pale outside, but of a bright azure-blue inside, with a white eye and a yellow tube-mouth. Each blossom is an inch across, spreading. A beautiful dwarfish-growing plant, deserving a place in every flower-garden.

THE DIAGRAMS OF THE "GARDENER'S MAGAZINE OF BOTANY."

BY FAIRPLAY.

I AM fully aware that to notice the minnows which flirt about in the horticultural stream is to raise up a class of persons who would be oracles if they had any influence, but who are better left to themselves. One of the small fry, who seems to lord it over the uninformed, through five or six pages of the *Midland Florist*, finishes by thrusting his nose into a vice, which pinches harder than he bargained for. He says, towards the conclusion of a very rambling article,—

"If I am not trespassing too much on your space and the patience of your readers, I would just say a few words upon the two diagrams in the above number (he has been finding fault with the work) of the *Gardener's Magazine*—one of a perfect Picotee and the other of a Carnation, which I venture to say *never will be attained*, if the world should continue until it is twice its present age; and for this *very simple* reason: the petals in the same tier are of two widths, as will be evident to the most uninitiated in looking at the plates; and this is a freak, or law, which nature never will adopt, *I'll warrant*. It is not at all necessary she should, for we have a more perfect model in actual flowers at the present day; and if your readers ask where, I reply *in the drawing* of Hollyoak's Duke of Rutland, before alluded to, in the same work, and exactly opposite, as if put there expressly for my present purpose, for the sake of comparison. Then, again, look at the complete rosette the diagram makes! a fit subject for adorning a horse's bridle. There are no less than *seven tiers of petals* in each of these diagrams, *comprised of forty-two petals*, a goodly number to come

out of a calyx *the size of a lady's thimble*. If these had appeared before the trial exhibitions, surely there would have been just cause for our northern friends disclaiming the southern model of a perfect Picotee. 'Save us from our friends.'

Now, sir, it may be raising a "nobody" into importance to notice this rigmarole, but the *Midland Florist* is read by persons who know nothing of the writer, and the great majority of readers look upon what is in a work as the opinions of the editor, although nothing can be a much greater mistake. As the writer in question assumes to dictate in matters he does not even understand, and this dictation may appear the dictation of the work itself, I will offer a few words upon the dictatorial manner in which the writer would propagate his own blunders. The author of "The Properties of Flowers and Plants" avowed, ten years ago, that, in contradistinction to all who had touched upon the subject, he had set models *which never will be attained*, but which would be *the most perfect and beautiful form* that the flower could possess *if it could be attained*; therefore that flower which comes nearest must be the best. Now, after this avowal in the work itself, and made by the author in public meetings and in lectures, what comes of this would-be-dictator's discovery that it *never will be attained*. "I venture to say," observes Sir Oracle; what venture was there in saying that which the very author of the "Model" [had previously announced as the groundwork of his "Properties of Flowers?" But when he adds, "for this *very simple* reason, the petals in the same tier are of two widths," and warrants nature never commits such freaks, he must forget that nature does not one time in fifty condescend to place the petals in tiers at all, and not unfrequently pokes even one of the guard petals in the centre of the flower. But I shall not quibble on straws—the petals *are not of two different widths*; it is simply an untruth; but it would not alter the case. The author does not anticipate that nature can come up to his models, and therefore the writer's warrantry about what nature will or will not do, however silly and presumptuous it may be, was perfectly uncalled for. When this very sapient gentleman says, "We have more perfect models in actual flowers at the present day," it is a wanton and unjustifiable misrepresentation, and a writer ought to be ashamed of resorting to such means for the sake of a little (unenviable) notoriety. I have conversed with hundreds of better florists than the writer can be—for no good florist would so commit himself—and I have never met with one who would deny that the models laid down in the "Properties of Flowers and Plants" would be PERFECTION, if attained, but that to attain them would be impossible. Hollyoak's Duke of Rutland is a fine flower, as flowers go, but the man who will deny that it would be better with two or three more tiers of petals—I am not talking now about what nature may or may not do—must be no florist; and he who denies that it would be improved if the petals formed a more complete circle can be no judge. This would-be florist dictator must also have his fling at the uniformity of the petals forming a rosette, but when I once see a florist's flower too mechanically true, I may be inclined to listen to such ridiculous objections. Now, with regard to the number of tiers and petals, seven

tiers "*comprised of*," as he calls it, "forty-two petals, a goodly number," he observes, "to come out of a calyx the size of a lady's thimble," I beg, with great deference to this dictatorial gentleman, to remind him that there is no condition as to the size of the calyx, and whether forty-two be a goodly number of petals or not, or seven tiers be a wonderful number or otherwise, I will defy him or any other sensible florist to say that four rows are not better than three, that five rows are not better than four; and, further, I will defy him to show that *if a Carnation or Picotee could be produced in every respect as perfect as the diagram*, that there would be a possibility of improving it. He says, "If these had appeared before the trial exhibitions, surely there would have been just cause for our northern friends disclaiming the southern model of a perfect Picotee." It is evident that this gentleman is half a century behind in his knowledge of the floral world. The diagrams complained of, as if a new grievance to this floral Solomon, were as familiar to the majority of those who attended the trial exhibition as some of the flowers themselves. The diagrams had been published and approved many years. The northern growers *never objected to the southern models of what a flower ought to be*, they only objected to the *southern mops*, in which there were too many *petals without form*. The northern never quarrelled, and never would quarrel, with any number of tiers *of perfect petals forming "a rosette,"* they quarrelled with the number of ragged petals *not in tiers*. The rigmarole in which the silly stuff we have quoted appears is signed Benjamin Vialls, and I would recommend him another time to be a little less flippant in his attacks upon things above his comprehension. Dictatorial and flippant letters do not come well even from acknowledged authorities, but from an inexperienced aspirant to the honour of appearing in print, who does not even know the work he is underrating, nor the origin of the diagrams he condemns, and who, besides, is profoundly ignorant of the very objects of the author whose work he affects to ridicule, it comes with a bad grace. It may be very convenient for dealers to cry up their flowers, and cry down the models which show what perfection would be; but Mr. Vialls will find it difficult to persuade any man of sense that you can have too many tiers of perfect petals, and flowers too much like a rosette. The diagrams in the Magazine are correct—they are authentic; and it is admitted, after ten years' experience, that *the nearer a flower could be got to the model laid down the better it would be*.

If Mr. Benjamin Vialls had published his notions in a book by itself, with no other *prestige* than it would derive from his name or his subject, I certainly should have left him to work his way alone, but as he was admitted to the pages of a periodical whose editor is looked up to, and, as I before remarked, a vast majority of readers identify the editor with all that appears, I considered I was only doing a service to the less informed by pointing out the miserable blundering of the writer. First he discovers what the author of "The Properties of Flowers" told everybody many years since, and offers his security for the truth of the assurance that the perfection of the models laid down *never can be reached*, then he affirms that which the mere tyro must know to be

untrue, that "we have already real flowers that beat the model," and points directly to a sham one, "*a drawing*" of one which he had never seen. Then he quarrels with the mechanical accuracy of a diagram which resembles by its truth a rosette, as if it were possible to have a florist's flower too formal; then with the number of tiers and of petals "to come out of a calyx the size of a thimble;" and, in short, he quarrels with a diagram which has been published many years, as highly displeasing to his floral highness, and speculates what a sight of it would have done at the trial exhibition, where it was as familiar as the flowers themselves, and where the judges actually awarded *the best prizes to the flowers that came nearest to the offending model*. Mr. Benjamin, who wants apparently to be "*Little Benjamin the ruler*," finishes with a very serious exordium—"Save us from our friends." The greatest benefit that was ever conferred on floriculture was the publication of "*The Properties*," which commenced in 1832, in which "*Properties*" the proposed models were one and all founded on *what would be the most perfect, if attained*. All that had been written before was loose, undefined, and with a mind contracted, unable to see further than the best of the flowers already produced. "*The Properties*," as published, defined to a nicety, in language which the greatest dullard could understand, such models as *there was no hope of realizing*; but from that moment every flower *which advanced a single step in the right direction* was recognized. "Save us from [our friends]" would apply better to those who seek notoriety at the expense of improvement than to persons who publish well-authenticated facts relating to flowers. I only wish that editors in general would be a little more careful how they admit the dogmas of people of no floral standing, and, if we are to judge by their productions, of very meagre floral knowledge, because, although I acknowledge that an editor *is not properly identified with the opinions he admits*, a very large portion of his readers will, and do, look upon them as identified with the work. Mr. Benjamin Vials might have distributed half a million of copies of his article without its having the slightest influence, but coupled with a respectable work, whose editor is an authority on many such matters, it required a notice, and I wish him joy of his notoriety. The next time he discovers a TEN-YEAR-OLD NOVELTY to peck at, I hope he will know better than to quarrel with quality, merely because it cannot be obtained. The writing of such an article seems to indicate a general disposition to peck at things beyond his reach: such persons are not fit monarchs for the floral world.

FRENCH DAISY CHRYSANTHEMUMS.

BY A LONDON AMATEUR GROWER.

THE Horticultural Society sent Mr. Fortune to China to collect plants, and in 1846 the CHRYSANTHEMUM MATRICARIOIDES (Chusan Daisy) was introduced to the Society's garden at Chiswick. From this liberal source distributions of the plants followed both into this country and to the Continent. The result has been the production of a new race of

Chrysanthemums, by seedlings being so readily obtained from that species. This has been especially attended to by florists on the Continent, and many of the fruits of their success are now in the nursery establishments of our own country, known as MINIMA CHRYSANTHEMUMS, or POMPONS. A few of their beautiful varieties were figured in the last year's volume of this Magazine. The plants are of dwarf habit, handsome form, bushy, with dense, small foliage, and their flowers small, compact, neat, many of them very elegant, and produced in profusion. They highly merit a place in every greenhouse, sitting-room, or garden; and I doubt not but they will be cultivated for, and be exhibited at, the Chrysanthemum shows as a distinct class.

In order to bloom this class satisfactorily, it is necessary to have the plants got on with as early as possible in the spring. They grow much slower than our old class of Chrysanthemums do, and require a longer period to be properly matured.

Last July I procured from Belgium some other varieties of this new class. The plants were only about three inches high, and with every exertion to get them to bloom, I failed; the plants did not even show flower-buds: but by having nice healthy plants early in spring, such will succeed, by proper treatment, to admiration. This I proved by the first stock of plants I obtained in 1849, suckers of which I potted off early in December, kept them in a cool frame from frost during winter, and repotted twice afterwards. Some of the tribe are perfect gems when in bloom; they appear as if covered with the best double Daisies.

PROPAGATION OF CAPE HEATHS BY CUTTINGS.

BY AN OLD PRACTITIONER IN LONDON.

OBSERVING in the February number that "An Admirer of Heaths" requested information on a successful method of propagating them by cuttings, and desirous that he should be assisted in the matter, I have drawn up the particulars of my mode of treatment, which has admirably succeeded for near twenty years, during which period I have raised fifty thousand plants of this beautiful tribe.

Almost all will strike root freely 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 cutting selected should be chosen from the *healthiest* plants, and taken off close to where they push 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, as the plants will attain such a size and vigour before the winter as to be able to survive that season.

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 so extensive a genus it is impossible to state any particular period of the year for commencing the operation of propagation by cuttings of each sort, 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, but generally in spring and the early part of summer.

In extensive nursery collections, where great quantities of plants are wanted, one pot is 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 a low close stove*; and if there be a tan-pit of *gentle heat*, plunge to the rim, and cover each pot with a bell-glass. The sand must not become *dry*, or certain death to the cuttings will follow.

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 of *gentle heat*. The reason for applying a *gentle 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.

The following method of striking cuttings of Heaths I also adopt, viz., to plunge the pots into coal-ashes or 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., I recommend it to their attention, for I raise a considerable quantity in this way. It is necessary, in preparing the pots for the cuttings, to select them of about equal sizes, say that of 32's, and to fill them 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*) is placed, to prevent the finer particles of mould from being washed down amongst the drainage. The pot is then filled to the brim with fine, *pure white* sand, as free as possible of *earthy or irony* 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 circumstances, 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 ensure success. When the young cuttings begin to grow, air is 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.

CHRYSANTHEMUM INDICUM,

ITS CULTURE, AND SELECT LIST OF THOSE VARIETIES SUITABLE
FOR COMPETITION AS CUT BLOOMS.

BY MR. GEORGE TAYLOR, GARDENER TO JOSEPH WILLIAMS, ESQ., STAMFORD HILL,
NEAR LONDON.

THIS showy autumnal flower, which greatly enhances the beauty of our gardens, and more especially the conservatories, during the dull months of November and December, is now claiming the attention of the admirers of floriculture, as a flower worthy of being extensively cultivated for competition, especially so as the tribe blooms at a period of the year when the greater portion of floral beauty is absent. The Chinese take great interest in the cultivation of this flower. It was first introduced into this country from China, in 1764.

A few practical remarks on the treatment as adopted by one who, as

being a successful competitor at the annual exhibition of the above flower held in this locality, may not be uninteresting to those of your readers engaged in its cultivation, or about to be so.

I commence propagating as soon as the blooming season has ceased, by filling some 60-sized pots with a compost of sandy-loam; then select my cuttings, preferring the strongest suckers with a portion of root attached to them, and into each pot insert three cuttings. I then place them in a cold frame, not excluding the air entirely from them. I do not advocate striking them in heat, as it deprives them of that *robust habit* in their infancy so necessary for ensuring superb blooms. In the month of April a compost is prepared consisting of one-third yellow loam, one-third rotten turf, and one-third rotten manure, adding sufficient rough sand or grit, to make the soil porous; the whole is then well incorporated. The plants are then shifted from their nursery pots into size 32's, care being taken not to disturb the young roots; they are then placed in the open air, in a situation sheltered from the easterly winds, at a sufficient distance from each plant to prevent their growing weak. During their growth, at intervals, their position is altered, in order to regulate their habits, and prevent them striking root into the ground. In the latter part of June, or beginning of July, I give them a final shift into large-sized pots, providing them with plenty of drainage, and the compost is the same as before, only it partakes of a more porous character. After this they are placed in a situation fully exposed to the sun, and adopting the same practice of removing, &c., as hitherto. I fix a strong stake to each plant, and tie them as required.

Being plants that require a liberal supply of water during their growth, they should not be permitted to suffer from drought, as that would destroy the *under foliage*, and retard their vigour. Neither should the soil be so drenched as to become soddened, as that would injure the plant, and prevent its producing fine blooms. I afford them strong liquid manure water once a-week, from the end of July till the blooming season.

As laterals push forth they are pinched off, but at no period do I stop the main stem. As soon as the *blooming stems* are visible, all are removed but three or four on each plant, according to its strength. When the flower-buds are discernible, I thin them, leaving *one bud to a stem*, preferring the *centre one*, if round and perfect.

The earwigs will now attempt ravages among the buds. Diligent search, morning and evening, should be made for them, or the hopes of the cultivator will be blighted. I place bean-stalks among the branches, into the hollows of which they creep, and in the morning I blow them into a bottle of hot water, which effectually destroys them, and the stalks are replaced.

As the blooming season advances they are removed into the greenhouse. My object being to obtain *superb flowers*, the plants are not checked in their growth by stopping, from which circumstance they become somewhat tall, and to some may appear unsightly; but to remedy this supposed defect we intermix them with the Camellias, the deep green foliage of which affords a pleasing screen to their stems.

At the same time we fix the pots under the stage, or otherwise, as circumstances permit, so that the flowers do not exceed in height the Camellia plants; thus their NOBLE SHOWY FLOWERS have an agreeable contrast with the glossy leaves of the latter.

I have cut remarkable fine blooms from plants grown under a *south wall*, treated in every way as for pot culture. As the blooms expand they require to be protected from wind, rain, and frost. Some of the early varieties require shading during a hot sun; the later sorts have glasses fixed over them, that the bloom may fully develop itself by the time required for exhibition, which at STOKES NEWINGTON is about the middle of November. I need not say in the latter practice nice judgment is required in tilting the glasses, so as to admit of the condensed moisture escaping, for if this particular was not attended to, the under petals would be disfigured before the upper ones were fully matured. For ordinary purposes, I consider March a very good month to commence propagating the Chrysanthemum.

For the information of those persons who are desirous of acquainting themselves with the names of the varieties which are suitable for cut blooms, the following list comprises those I can highly recommend. Ere long I hope, and doubt not, but they will vie with the Pelargonium in the number of ardent successful raisers of improved varieties. Among those who have attempted it with success is Mr. Salter, of Versailles Nursery, Hammersmith, whose Annie Salter cannot fail to be admired by every lover of the Chrysanthemum.

Incurved or Cupped Flowers.

Beauty, blush.
 Campestronii, deep rose.
 Duke, blush.
 Defiance, white.
 Dupont de L'Enre, purple and orange.
 Formosa, creamy-white.
 Goliah, white.
 Golden-clustered Yellow, golden-yellow.
 King, rose.
 Lucidum, white.
 Nonpareil, rosy-pink.
 Pilot, bright rose.
 Queen of England, blush.

Rabelais, reddish-carmine.
 Two-coloured Incurved, red and yellow.
 Vesta, white.
 Warden, orange.

Reflexed Flowers.

Annie Salter, yellow.
 Cloth of Gold, golden-yellow.
 General Marceau, buff.
 Madame Hardy, white.
 Phidias, rose and white.
 Princess Marie, rose.
 Sydenham, light-red-crimson.
 Temple de Salomon, bright yellow

[We saw the winning stands of the flowers exhibited at the last shows above referred to, and such large-sized ones we never saw near equalled elsewhere. They appeared at a distance like fine-sized Dahlia blooms.—CONDUCTOR.]

BRIEF REMARKS.

ON JUDGING TULIPS.—Our respected friend Mr. Slater, of Manchester, has favoured our readers with many valuable articles on the

Tulip; and in a communication in the *Midland Florist* he remarks on the judging of Tulips, that he found it a matter of great difficulty to properly judge those Tulips which had *stained bottoms, narrow petals, and stained stamens*. He proceeds:—"This, to me, has been a very great difficulty, as, where marking has been strictly adhered to, many a fine Tulip has been put aside, because another has been marked in a superior manner; and it has engrossed my attention for years how to divide the properties so that each may have a fair chance.

"It is well known that in many localities stained bottoms and long cups have frequently obtained nearly the whole of the prizes, and the poverty of the exhibitors would not allow them to purchase those of modern introduction. The disqualifying of stained stamens, in some parts of England, is what I cannot approve, as the stains frequently arise from various causes. I have known instances when the stamens have been perfectly clean at opening, and as the mass of colouring has risen, they have become discoloured. This, I have no doubt, arises from a superabundance of colouring matter, as in flowers very clean the stamens are perfectly pure. There is also another point of importance, that is, the base of a bizarre often, as it ages, becomes a greenish-yellow. This is particularly the case with Polyphemus. Now I wish to give all flowers a chance, and I cannot see how this is to be done unless the Tulip is divided into many points. It must not be supposed that I am an admirer of dirty Tulips; far from it—I like purity in every respect; but if accidental or natural causes produce these defects, let every allowance consistent with a due regard for those properties which add so much to the beauties of the flower be made.

"The result of my deliberations has been to divide the properties of the Tulip into twenty-four parts, as follows:—

6	points for form.
6	,, clean stamens.
6	,, clean bottom.
6	,, marking.

"The defects of the Tulip as follows:—

6	points to be deducted for bad form.
6	,, ,, bad bottom.
6	,, ,, stained stamens.
6	,, ,, narrow petals.
6	,, ,, long cup.
6	,, ,, cloudy bottom.

"By adhering to these properties, a Tulip having bad cup, bottom, and stained stamens, will, if the petals are not narrow, have eighteen points to gain in marking; but if narrow petals are added to the above, it will, of course, be disqualified altogether. This will be better illustrated by the following details. Suppose a Tulip have good form, pure bottom, and clean stamens, the result will be as follows:—

6	points gained for form.
6	,, bottom.
6	,, stamens.

Thus it will have the advantage in eighteen points for the marking out of the twenty-four, which will give it a decided superiority.

“Again, suppose a Tulip have good bottom, clean stamens, long cup, and narrow petals:—

6 points for bottom.	6 points deducted for narrow petals.
6 ,, stamens.	6 ,, long cup.
—	—
12	12

This will have twenty-four points to gain in marking.

“Again, suppose a Tulip have good form, but stained bottom and stamens, it will have eighteen points to gain in marking.

“Again, suppose a Tulip have good cup and bottom, and tinged stamens, it will have eighteen points to gain in marking.

“Again, suppose a Tulip have good bottom, long cup, and clean stamens, it will have eighteen points to gain in marking.

“Again, suppose a Tulip have good form and slightly tinged under-stamens, similar to Captain White, *alias* San Joe, this Tulip only showing stains in three petals, it will consequently have fifteen points to gain in marking.

“Again, suppose a Tulip have long cup, bad bottom and stamens, it has no good properties about it; the whole twenty-four points are swallowed up by its defects, and therefore it must be disqualified altogether.

“Again, suppose a Tulip have good form, clean stamens, but cloudy bottom, it will have eighteen points to gain in marking.

“Again, suppose a Tulip have good form, stained stamens, and cloudy bottom, it will have eighteen points to gain in marking.

“There are many Tulips with cloudy bottoms, that is, not a pure white, but similar in colour to what is termed French white. These cannot be classed as pure. Of this class is Gibbons’ Lady Flora Hastings, exhibited at Manchester under the name of Sable Monarch.

“I have briefly endeavoured to lay down a standard, and trust that any defects which may be found in it will be charitably reviewed. I do not profess to be *infallible*; but having experienced much difficulty in judging, upon various occasions, I was determined to get to some conclusion as to what number of points each defect in a Tulip ought to have. I know it is a ticklish subject to lay down rules that shall please every one, but I have duly considered the matter for nearly three years, and I now give the result of my deliberations. Upon a careful perusal of them, I think they will be considered as equitable, giving points for certain properties, and that marking in a bad-formed, &c., flower shall not take precedence of one that has three-fourths of the essentials of one.”

GLOXINIAS AND GESNERIAS.—These fine plants have been found to flourish in a most striking manner in a compost of the following materials: equal parts of half-rotted beech leaves and good peat soil, with a small portion of mellow turfy-loam, and a good portion of the usual white (or silver) sand; also some well-rotted cow-dung, and a sprinkling of bits of charcoal. A free drainage is always essential, and to have

plenty of root-room. They do best placed near the glass, and having warmth at the roots; also to be *shaded* from hot sun, or the leaves will crumple, and have a brown hue. As soon as potted, they should be placed in a hot-bed frame of gentle heat, or in a stove where they can have warmth at the roots. When growth has commenced, they will require proportionate air, to prevent them being drawn up weakly. They require a liberal supply of water and a *damp atmosphere* till the blossoms are nearly opening; then they may be placed near the glass, on a shelf, in the greenhouse, &c.; but avoid watering over the leaves at all times, and, instead, water around the pots, &c., to obtain a *moist atmosphere*.

THE HORTICULTURAL SOCIETY'S SCHEDULE, &c., FOR 1851.—We are informed that a sort of combination has been attempted for the purpose of rebuking practically the Council of the Horticultural Society, for some changes made in the schedule connected with the exhibitions for 1851.

As to the reduction of amount of prizes for any given things, they will expose to the world who shows for honour and who for the sake of money. Although some exhibitors have agreed to abstain from showing, they do not all combine, and the show will not be less in quantity than those of old.

Showing Carnations on their plants is another regulation which some of the exhibitors object to, and we can fully appreciate the reasons alleged for their objections, but the proposal for one and all to abstain has equally failed. One obstinate gentleman thinks a stage of Carnations and Picotees on their plants far more beautiful than blooms in a box, and he intends doing his best. As specimens, the judges will have to look at them as they would if the plants were on their own stage. A man grows them on cards, and he does not cut off and throw away a bloom for a split pod. The presence of a run petal or a split pod does not affect the beauty of a plant, and perhaps most of the pots could be shown with three or four blooms, neatly carded, to set them off to advantage, as they would appear in their own grounds; perhaps with one or two of the blooms in a pot so split as to disqualify a cut flower. But let the Horticultural Society be careful of the judges employed, and be also equally careful how they are instructed, because they must not apply to the blooms on their own plants the rules adopted for showing in a stand or box. We have heard one who fancies he is to be a judge say he will disqualify every collection if he can find a split pod; whereas, to show a stage of them as they should be shown, *all* the flowers should be *retained*. The removal of all those that have split pods would make the plants look meagre and short of flowers, a result which some of the opponents of the new system say is "devoutly to be wished."—G. G.

BLUE-FLOWERED HYDRANGEAS.—My plants are kept in a cold pit frame near the glass during winter, just saved from frost. The last week in February, or first week in March, I proceed to pot them for bloom. The compost I use is what I have grown my Cucumbers in the preceding year, which consists of half the quantity of good loam, a quarter of good spit dung from an old Cucumber or Melon bed, and a

quarter of decayed leaves. This mixture I lay in the compost yard for use. The Hydrangeas I bloom in a sixteenth-sized pot; I divest the roots of the old mould. From those plants I intend to produce blue flowers, I cut off the long fibrous roots, reducing the ball to the size of a thirty-two sized pot. I take one ounce of oil of vitriol, and, with a quill or strong feather, I touch the roots of two plants all over. The remaining oil of vitriol I mix with a sufficient quantity of mould to pot two plants. When I have potted them, I place them in a shed or some sheltered situation for three or four weeks, until they have made new roots; then I place them in a forcing-house, and take especial care not to let them droop for want of water. The above method I have practised with success for upwards of twenty years. The flowers are equally as large as those that are pink, and of a fine blue.—*Senex.*

PROPAGATION OF CAPE HEATHS.—In reading over the January Number, I was much satisfied on seeing how to grow this lovely class of plants, and I should be additionally obliged by a few remarks on their propagation, and the Epacris too. Last August I tried to strike some cuttings in a bark-bed, under bell-glasses, but without desired success, having only raised one or two.

I am desirous to know the entire routine as to their increase by cuttings, &c. Will pounded free-stone do to insert them in?—(No.) What is silver-sand, which I see some cultivators recommend?—(The white sharp sand usually sold at the shops.)—*An Admirer.*

POTTING PLANTS.—The season is now approaching when greenhouse plants, &c., commence growth, and require in most cases to be re-potted. If any of the soil looks black and wet, and the pot feels more than usually heavy, there is something wrong. There is a soil which is good for almost every kind of greenhouse plant: loam, with the turf rotted in it, decayed cow-dung, leaf-mould, peat-earth, chopped small, or rubbed through a very coarse sieve, and road sand, equal quantities of each; it will do for everything. If Heaths are grown, then treble the quantity of peat-earth, and not alter the others, so that it would be *one* of each of the others and three of peat-earth, instead of one all round.

In moving a plant from one pot to another take care that the plant be not sunk in the least more in the new pot than it was in the old one, and see that the compost, well mixed up, is made to go down nicely all round the ball of roots, &c.—*A Practitioner.*

JASMINUM NUDIFLORUM.—The flowers appear before the leaves. The end of the five-parted corolla is nearly the size of a shilling when fully open. Of a bright yellow colour. It is perfectly hardy; and blooms against a wall, this season, as early as February. In-doors it will bloom all winter, by introducing the plants in succession.

DIALYTRA SPECTABILIS.—This very beautiful Fumaria-like flowering plant, with its large gracefully pendant rosy pink flowers, makes a most charming plant for the bed in a flower-garden. I tried it last summer with perfect success; it ought to be in every one. I had good plants put out the first week in May.—*A Country Curate, Somerset.*

CLOTH OF GOLD ROSE.—In order to induce this very superb rose

to bloom more freely and vigorously, it was budded upon a Crimson Boursault, and the result proved highly satisfactory, both in quantity and in size of flowers. The Crimson Boursault may be procured at a small cost, and it may be worked upon the coming season.

HIGHBURY AND NORTH LONDON HORTICULTURAL SOCIETY was established last year (1850), and the number of members now amounts to about two hundred, comprising a great number of the nobility and gentry of the locality; and it is calculated the number will be doubled this season. The Society distributed 225*l.* 19*s.* in prizes, at its two exhibitions, the past summer. Three exhibitions are to be held this year, and to take place the day after the Royal Botanic Regent's Park meetings. It is highly creditable to the Society, and we doubt not but they will have all their expectations more than realized. Why may not the nobility, gentry, florists, &c., of the EASTERN SIDE of London, emulate those of the other quarters of the Metropolis?

IPOMÆA HORSFALLIÆ.—In a recent number, a correspondent solicits instruction how to propagate this splendid blooming hothouse climber. If the following method be practised, success will certainly be realized. The *Ipomœa insignis* is a vigorous grower, and can be purchased at a cheap rate at most of the general nurseries. The *I. Horsfalliæ*, grafted upon stocks of the above, readily take, and progress admirably afterwards. The operation is as follows, and *March* is the best period for its being done. Cut the stock down near to the earth, having the cut left sloping upwards; then cut the piece (scion) to be grafted in the stock, so that the slope is downwards; slit the *stock* a little downwards and the *scion* upwards, fitting the two together by the tongue, and having the bark of each to fit exactly at the sides. This being done, tie securely together, and clay the parts over. After this operation, plunge the pot in a hot-bed frame, bark pit, or similar bottom heat, and cover over with a bell-glass; if several, a hand-glass will answer. Attention to watering will be required, and the graft will soon unite. As it pushes, air must gradually be admitted, till the graft is properly inured. The *I. insignis* strikes freely by cuttings, so that the tops which are cut off, being struck, stocks will be obtained for grafting purposes.—*A Nobleman's Gardener.*

BLOOMING HYACINTHS.—The secret of successfully blooming the Hyacinth is in having the roots in advance of the flower-stem and leaves. Thus, other things being equal, the sooner that bulbs intended for forcing or merely growing in the greenhouse or window in winter and spring are potted in the autumn, and slightly covered and plunged, the better they will succeed. The heat in the ground is, upon an average, higher than the atmospheric, and thus roots are formed plentifully before there is much expansion of leaves; so that there is *no want of nourishment for the flower-stems and leaves* when free growth takes place. The same rule applies to those grown in glasses. It is a general property of roots to court darkness, and shun light. Lately I noticed a great many Hyacinths in rows, in glasses in windows, just beginning to grow, while several were rotting and moulding at their base. This casualty might have been prevented by not allowing the water to touch either the *bulb* or the *roots*, until the *latter* were one-third of an inch in length. The water should be changed, too, every

fourth day, and on each occasion two or three bits of charcoal be put into the water of each glass.

BEDDING PLANTS.—All the most showy and long-blooming plants which are the brightest ornaments of our flower-gardens, are now known as the class of **BEDDING PLANTS**, and many of the nurserymen's catalogues now contain lists of them under that section of flowers. I propose from time to time to give a descriptive account of all the best, with their peculiar treatment, throughout the year.

There is one lovely blooming tribe, viz., the **BOUVARDIAS**, which, when properly managed, merit a place in every flower-garden, either in patches of three or four plants, or in small beds. I possess the following kinds—*B. tryphylla*, *Jacquinea*, *glabra*, *mollissima*, *splendens*, *angustifolia*, *lævigata*, *venusta*, *strigulosa*, *aurantia*, *bicolor*, *leiantha*, *longiflora*, and *stricta*. All these kinds are very handsome flowering plants. The flowers are of a fine scarlet, crimson, red, orange, &c., and in shape like the Trumpet Honeysuckle, of various sizes, and the blossoms are produced in clusters of from six to twenty in each head, and some plants which I have a bed of produced this season thirty-five clusters or heads of flowers upon each. The original species is a native of Mexico, and is usually kept in the greenhouse in this country, but I am of opinion that it and the entire varieties above named may be found as hardy as the old *Fuchsia coccinea*, and stand our winters in this part of the world. It will, however, be necessary to have them planted where they will have a *very dry subsoil*, and likewise to have *protection in winter over the roots*, by means of leaves, tan, or something of this nature. I purpose trying my beds of plants the next winter, and the result shall be forwarded you. I have grown them in beds and in patches for the last several years, and have ascertained that the plants must be of *two or three years' growth* before they become *bushy enough* to make a show for a bed. Plants calculated to answer the purpose may be obtained of the nurserymen at a reasonable charge. The same plants will successively answer for the length of an age, and in each season increase in size and beauty.

The plan I adopt in the culture of these plants is the following:—The soil of the bed is composed of good rich loam, well manured with rotten leaves, a portion of old hot-bed dung, and charcoal dust, with an addition of river sand. Previous to laying in the compost, I had the bottom of the bed covered to the depth of three inches with some small gravel stones, upon which I had the compost about eight inches deep, the surface being raised above the walk and grass verge four inches. The first week in May I turn out the plants with balls entire, except a careful loosening of the outre fibres. I place them in the bed, the tallest in the centre, and lowest at the outer row, and so close that the plants furnish a covering to the bed, and when in bloom appear a mass of flowers. I place the plant so low in the soil that the top of the ball is about an inch below the surface of the bed. After planting, and before watering, I place from four to six sticks round each, and to them secure the branches; then water freely. The watering is repeated frequently during the summer season, and the plants most amply repay for the attention, nothing exceeding the delicate, splendid appearance of the flowers, which continue from June till November.

The plants grown in the greenhouse attain the height of two feet or upwards, but in the open bed they do not exceed more than eighteen inches (generally about twelve). The plants being allowed to root or spread without obstruction, become bushy, instead of being drawn up weakly. Early in November I take up the plants from the bed, and repot them into the same kind of soil, well draining the pots, and being careful to have fine soil to shake in among the fibrous roots. I have also kept the plants through winter by having them planted in a Mignonette box, closely together. In both instances I keep them in winter in a cool frame, sunk below the surface of the surrounding ground, in which for the last two winters they have kept well. I only give water in winter just to keep the soil moist.

They are readily propagated by cutting the roots into pieces of an inch long, laying them flat on the soil, covering them half an inch, and placing the pot in a hot-bed frame, &c., and they quickly push roots and shoots. A bed of mixed sorts is most interesting.—*An Amateur Florist, St. John's Wood.*

WATERING PLANTS IN POTS.—An excess of water is injurious, and, persevered in, death soon follows. This has especially to be guarded against during winter with the more delicate tribes; but it often happens that the opposite extreme is fallen into, and, as I have seen, during even the present mild winter, in one nursery establishment, vast numbers have perished by drought. It should be borne in mind that immediately the soil becomes so dry that the fibrous roots cannot absorb moisture from it, the supply of food is cut off, and the plant suffers immediately, and death soon ensues. This is especially the case with the Heaths and other similar *fine-rooted* plants. This state of dryness should not be permitted to occur, particularly during the growing season. When water, however, is given, always let there be sufficient to moisten all the ball of soil; and do not give another watering till there is reason to suppose nearly all the moisture is absorbed.—*An Old Practitioner.*

OUT-DOOR TREATMENT OF NYMPHLEA CÆRULEA.—During the summer of 1849, my plant, a seedling, was planted in a tub, and placed about ten inches beneath the surface of the water in an uncovered tank. It withstood the severity of the following winter, and made fresh leaves next May. Last year it grew luxuriantly, but did not flower. It lost its leaves from frost last October. I examined it yesterday; the caudex is quite plump and healthy, and I expect it to flower this season. It must be borne in mind, however, that the tank in which it grows occupies a semicircular recess, and is screened from the north, east, and west by a wall twelve feet in height. A terrace walk passes the front of the recess which is open to the south. It will be seen, therefore, that the plant has a favourable situation. In the same tank I have also *Limncharis Humboldtii*, *Agapanthus umbellatus*, *Villarsia nymphæoides*, *Aponogeton distachyon*, *Calla æthiopica*, *Mimulus rivularis*, *Acorus Calamus*, and the white and yellow Water Lilies. All these flourish satisfactorily. A thermometer, whose bulb rested on the tub, indicated 38° when ice an inch thick covered the surface. I placed it in the same situation this morning, and it registered 41°. My supply of water is by no means constant, the crown of

the plant being sometimes no more than three inches below the surface ; but the depth at which such plants should be placed is best regulated by the length of the leaf-stalks. I consider ten inches a very good depth. I should like to try many of our stove aquatics out of doors, more especially *Victoria regia*. I imagine that they are in reality not half so tender as people expect. An aquatic is not subjected to extreme heats and colds, like a common plant ; the temperature of the water being more uniform than that of the air.—*Edward Morse, Albury Park.*

VICTORIA REGIA.—Perhaps it is not sufficiently known that the old specimens of this plant have died out, during the winter, at Kew, Sion, Chatsworth, and other places ; and that it, therefore, appears to be little more than an annual. Those who cultivate it should, consequently, secure a succession plant or two, from seed, each autumn.—E. K.

As you despair of seeing the Royal Water Lily cultivated in this country with success, without artificial heat being applied, perhaps you will excuse the liberty I take in offering an opinion. There are hot springs in various countries ; and having seen at Bath, some years since, one in constant use, with a running stream about the temperature of 110° when first issuing from the ground, where would be the difficulty of conveying this water into a tank (of course with a covered roof) of any size that might be required for this noble plant ? About twenty miles from the above city are coal mines, which could not be worked without the constant employment of a steam-engine to clear them from the water, which I saw running to waste by the side of the road, smoking hot. Might not this be conveyed into a reservoir for the same purpose ? Perhaps the same idea may have engaged the attention of some of your scientific readers, and, if so, will occasion a more profitable dissertation than many subjects of less interest (at least, in the opinion of gardeners) which occupy the attention of the public.—P. (*Gardener's Chronicle*).

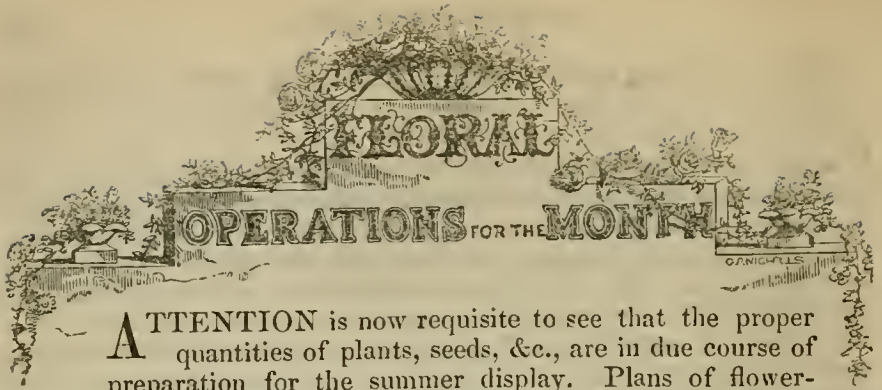
POINSETTIA PULCHERRIMA.—In a recent number I observed a strong recommendation of this very showy plant ; its large crimson heads forming so ornamental an object. It is not usually grown well, becoming either long and weakly, or if cut in, and side shoots are allowed to grow, the heads of showy bracts are always small. The best mode of treatment is when its bloom is over to cut the plant down to the lowest three buds, and *gradually* withhold water, so as to give it a two months' season of rest in the greenhouse, keeping the soil nearly dry. Then re-pot it, carefully taking away as much of the ball of soil as you can without damaging the roots. Use a compost of year-old turfy-loam, well-decomposed dung, and rough peat, in equal portions. A free drainage of rough materials, and plenty of root-room, are essentials. Then place it in the stove or hot-bed frame, till it has pushed shoots six inches long ; then remove it to a cooler, airy situation, so that it prevents its being drawn up. Never stop the leads, and the heads of bloom will be fine. I am a market nurseryman in London ; I have the advantage of plenty of stable dung, and therefore make a number of hot-beds. I find this plant succeeds the best when plunged in a bed of this sort. I force it in winter, and have a large number of them in splendid show from January to April. My plants are robust, about two or three feet high.—*Acton.*

CULTURE OF NELUMBIUMS.

BY KEWENSIS.

HAVING some time back suggested to your readers the experiment of growing tender aquatics in warm-water tanks, and observing that a correspondent has been distributing seeds of *Nelumbium luteum*, I think a hint on the mode of raising that and the East Indian *N. speciosum* may not be amiss, as, without such instruction, probably not one person in fifty of those who have received seeds will rear the plant. For some reason or other, probably to preserve a seed which, by sinking in deep water, or being buried in mud, is exposed to many casualties, the seeds of *Nelumbium* are furnished with an exceedingly hard coat, which as long as it remains uninjured resists all soaking, whether in cold or warm water. In order to induce them to vegetate in any reasonable time, it is necessary to file the blunt end of the seed, until it just yields to the pressure of the nail. Thus prepared, the seed should be thrown into a pan of water, the temperature of which is not above 70°. When first sown it sinks, but in the course of forty-eight hours it will begin to push, and as soon as the seed-leaves have protruded a few inches, the young plant rises to the surface, where its leaves expand, and it floats. In a short time it throws down a runner, much like that of a strawberry, which descends to seek the mud. This runner throws out roots, and sends up a leaf, and from its extremity a similar runner again descends, and again another, each rooting and throwing up its leaf, until at length the plant reaches the mud, when it takes root, and begins to produce strong leaves. The best method is to sow the seed in a pan a foot or eighteen inches deep, having four or five inches of stiff mud at the bottom. It is useless, and probably would be injurious, to cover the seed with earth; those which I tried to plant in this manner invariably came up and floated, and, if effectually buried, the seed would most likely decay. *Nelumbium luteum* seems to delight nearly in the same treatment as its East Indian relations, and the rich deep velvet green of its leaves form a beautiful contrast to the bluish-white of that species. I have not seen its flower, but understand that it resembles *N. speciosum* in everything but colour.

Whilst on the subject of aquatics, it may be well to mention that *Nymphæa lotus* grows very freely from seeds, if they are allowed to seed themselves in the water when ripe, and this is the best way of preserving the species; they come up in the following spring, and flower in the summer. The old roots are very apt to perish. *Nelumbium luteum* and *Nymphæa cœrulea* will probably prove the hardiest of all the tender water plants; but collectors must distinguish between the true *N. cœrulea*, a very strong and luxuriant growing sweet-scented species, and *N. stellata*, a small, elegant plant, much more tender. I fear, however, that this caution is almost needless, and that *N. stellata* has disappeared from our collections. The remark may, nevertheless, induce some one who is fortunate enough to possess it to cherish the delicate stranger, and give it the attention which its tropical nature requires. It is a native of Malabar. *N. cœrulea* is from the Cape of Good Hope.



ATTENTION is now requisite to see that the proper quantities of plants, seeds, &c., are in due course of preparation for the summer display. Plans of flower-gardens, &c., should be sketched on paper, and the appropriate regulations for future arrangement and plants required be put down; this attention is of much assistance.

IN THE FLOWER GARDEN.

Last month was the best time for grafting shrubs, ornamental kinds of trees, as Thorns, Limes, &c., but any late-growing kinds omitted may still be done, such as Rhododendrons, &c.

Annuals, hardy, such as Clarkia, Nemophila, Larkspur, &c., may still be sown in the open bed. Seeds of *Biennials*, too, should now be sown in beds, such as Hollyhocks, Sweet Williams, Scabious, Canterbury Bells, &c. Also seeds of *Perennials*, as Phloxes, Campanulas, &c. Finish planting out Biennials and Perennials, and dividing large patches of border plants. Hollyhocks must be put in immediately; water them as soon as planted. Newly-budded trees, that is those budded last season, should be looked over, and if any portion of the stock be pushing shoots, they must be rubbed off, so that the entire strength should go to the new shoot engrafted.

AURICULAS.—Give air freely on all suitable occasions, to prevent the flower-stems being drawn up weakly. The blossoms will soon be opening; no water must be allowed to fall upon them, and they must be shaded from hot sun. A stage of shelves enclosed in a wooden frame, or similar provision, having the bottom shelf two feet or so high, and gradually rising, &c., is an erection indispensable to showing them to advantage.

POLYANTHUSES, too, require similar attention to the Auriculas. Neither kinds should be allowed to droop for want of water.

PINKS.—If beds of them are required, make them immediately. A loamy soil, made of turfs a few inches thick, and well rotted, with an equal portion of old decayed cow-dung, is admirably adapted for their growth. It should be nine inches deep, and have a good drainage below. The plants must be removed with as much of the ball of soil as possible, and be planted six inches apart. High raised beds are not beneficial, except in low, wet situations. Autumn-planted beds should be top-dressed with a little rich soil, and the plants be made firm in their places; a few small sticks stuck around amongst the shoots will prevent twisting off.

RANUNCULUSES and ANEMONIES.—When the plants are risen an inch or two high, have the soil pressed closely around them with the

hands, stopping up any holes made by worms, &c. A top-dressing, too, of rich compost, free from wire-worm, is very beneficial. Often stir up the soil between the rows. Showers of rain are very beneficial for their growth; if none fall, water with *soft* water in the morning: well-water is injurious. Weak manure-water occasionally poured between the plants contributes to vigour.

TULIPS.—Stir the surface of the bed an inch deep. Protect from *hail*, *FROST*, and *strong wind*. Keep the soil firm around the stem, and mind that water does not lodge in the heart of the plant where the infant flower is, or it will be damaged; gently open the leaves, to admit the water to drain off.

CARNATIONS and PICOTEES.—If not potted off the end of last month, should be done immediately.

HYACINTHS should be protected from frost, sun, and wind; secure by tying to proper supports. Stir up the surface soil.

PANSIES in beds must have the soil pressed around the plants, and a top-dressing of rich soil an inch or two thick will be beneficial. New beds of them should also be planted. A few sticks among the shoots prevent them being twisted.

CHRYSANTHEMUMS.—Strike cuttings, or pot off rooted suckers. (See articles in our present number.)

ROSES.—Now plant out the tender China and Tea, or Bourbons, &c.

IN THE FORCING FRAME.

Balsams, Cockscombs, Globe Amaranthuses, &c., that require potting off, or repotting, should be duly attended to; also Thunbergias, Browallias, Lobelias, Brachycoma, &c. Seedling Fuchsias, Verbenas, Petunias, &c., should be potted off singly. Dahlias, too, should be placed so as not to be drawn up weakly. Achimenes must be potted off singly. (See articles on culture in previous numbers.) Tender Annuals, as Stocks, Zinnias, &c., should be placed in a cool frame or pit, to prevent them being drawn up weakly. Where it is practicable to prick out, such as Stocks, Asters, &c., upon beds, and protect with frames, it should be done; it gives a robust growth to them. Cuttings of Fuchsias, Petunias, Verbenas, and many other greenhouse plants, should now be put off. Young plants of Fuchsias, now procured, if six inches high, will make fine ones for shows in summer.

IN THE GREENHOUSE, &c.

Admit all the air possible. Re-pot Lobelias, Tigridias, Geraniums, Verbenas, and other similar plants for beds. All other kinds of plants requiring re-potting should now be done (see Compost, &c., in last month's Calendar). Such as are straggling, &c., should be cut in, to render them bushy. *Pelargoniums* will require particular attention in tying up, watering, and fumigating (if green fly be perceived); occasionally give a little manure-water. (See articles on culture in previous volume.) Camellias—when done blooming, examine the roots, and if necessary re-pot (see articles upon, for soil, &c.); then place

them in a warm part of the greenhouse or forcing-house, giving due attention to watering, &c., till the wood is firm and flower-buds are set; they may then be removed to a cool pit, so as to be gradually hardened by more air, &c. Japan Lilies flourish best in peat soil and sand. Cinerarias require particular attention; pot or re-pot young seedlings, and fumigate if green fly appear.

A careful inspection of the greenhouse plants should be made, to see which require re-potting, and do it at once, not waiting till some general performance; always attend to it when it is wanted. Such Azaleas as have done blooming must directly be re-potted, and their growth afresh be gently promoted in a higher temperature for a short time. Any required to bloom late should be kept in a cool situation at present.

ERICAS.—Any requiring re-potting should be done directly; avoid too large pots with the less vigorous growers, but free growers will require room to extend in proportion. Give air freely, but avoid draughts, especially from east and north. Calceolarias require re-potting to have a vigorous bloom.

CULTURE OF FUCHSIA SERRATIFOLIA.

BY MR. H. STILWELL, GARDENER, FROGMORE, NEAR ST. ALBANS.

I HAVE read and heard many complaints of this *charming Fuchsia* being a shy bloomer. I do not find it so under my own management, and I therefore forward the particulars of the treatment pursued.

In August I strike my cuttings, and in doing so I place them in a cool pit, with a glass over them. When they are rooted, I pot them into 60-sized pots, in the following compost: three parts good mellow fibry-loam, one part of leaf-mould, and one part of good sand, having them well mixed together. I have a good drainage, which I find to be very essential with this Fuchsia, it being a stronger grower than most other kinds.

I have plants of this Fuchsia from nine inches to six feet high, and some of them bloomed from December to February, and others are now in bloom, some of their flowers only six inches from the pot. I bloom them in 16-sized pots. Why they are complained of and termed shy bloomers is, in my opinion, for want of proper pot-room and a suitable compost.

When *bushy* plants are desired, I take off the heads, which induces the production of lateral shoots, and they bloom in summer along with the other kinds.



New Menma Chrysanthemums.



FLORICULTURAL CABINET

M A Y, 1851.

ILLUSTRATIONS.

CHRYSANTHEMUM INDICUM MINIMUM.

DWARF CHINESE VARIETIES.—1. Cameleon. 2. Bouton d'Argent. 3. Piccinino. 4. Gil Blas. 5. Anais. 6. La Gitani. 7. Elisa. 8. Madame Lemichez. 9. Cybele. 10. Roi de Lilliput. 11. Croustignac.

LAST year, in our Number for May, we had the pleasure to give figures of seven handsome varieties of this very interesting section of Chrysanthemums. We have now the gratification to give figures of eleven new ones, which are of great beauty when in full bloom, and merit a place in every collection of this charming tribe of autumnal flowers.

We are indebted to the perseverance of the florists of France and Belgium for these lovely additions. The Horticultural Society introduced the Chusan Daisy Chrysanthemum into this country four years back; and the continental florists having obtained it, commenced to impregnate its blossoms by other kinds; and as it produces seed liberally, they succeeded even beyond expectation in raising a numerous race of this Minima section: the varieties we now figure are what are offered to the public for the first time this season. M. Miellez, nurseryman, of Esquermes, favoured us with the figures, and he now has plants for sale. These varieties, as well as what we previously possessed, merit a place in every greenhouse, frame, or sitting-room. They are dwarf compact growers, and in bloom are particularly neat and pretty. The plants require to be promoted in growth as much as possible in spring, in order to have a profuse bloom.

NOTES ON NEW OR RARE PLANTS.

ACACIA UROPHYLLA. POINTED-LEAVED.—A native of the Swan River colony. At Kew it forms a moderate-sized shrub, and blooms

in the greenhouse from January to March. The leaves are broad, sharp-pointed, two inches long. The flowers are produced at the axils of the leaves, from three to five at each, of a pale yellow colour. The Acacias flourish and bloom best when grown in equal parts of light loam and peat. (Figured in *Bot. Mag.*, 4573.)

BOUVARDIA LEIANTHA.—Introduced from Guatemala. It is a robust-growing plant, which rises three feet high, branching. Each leaf is nearly four inches long by two broad. The flowers are borne in terminous cymous heads, of twenty to thirty blossoms in each. Flowers tube-formed, an inch long, of a rich deep vermilion colour. It is a valuable acquisition to this charming tribe of plants.

CAMPANULA VIDALII.—A native of the Azores, which was discovered growing upon an insulated rock on the east coast of Flores by Captain Vidal. It is a *half-shrubby* plant, growing two feet high, and very bushy. The flowers are produced in terminal racemes; the blossoms are nodding, bell-shaped; each blossom is an inch long, and nearly as much across the mouth, of yellowish white or cream colour. It is a very ornamental species, blooming freely throughout the summer. It is a half-hardy plant, flourishing in the open border during summer, or cultivated in pots in the greenhouse.

CHYSIS AUREA, var. MACULATA.—The Golden-flowered spotted variety. This beautiful Columbian orchideæ has recently bloomed in the establishment of Messrs. Locombe and Pince, of the Exotic Nursery, Exeter. The sepals and petals are white and yellow at the lower half, and the upper of a rich brown-red. The middle lobe of the yellow lip is prettily spotted with purple. Each flower is about two inches across. (Figured in *Bot. Mag.*, 4576.)

FRANCISCEA CONFERTIFLORA.—A vigorous-growing shrub, leaves five inches long and two broad. The flowers are borne in terminal cymous heads, several blossoms in each. A flower is two inches across, lilac coloured. It is an ornamental species, figured in *Gardeners' Magazine of Botany*. The Francisceas thrive best in equal parts of turfy-peat, loam, and leaf-mould, with a liberal mixture of sand and bits of charcoal. When in a growing state, occasionally give manure-water. To keep them bushy they require to be cut in every year. (Figured in *Bot. Mag.*)

HEBECLINIUM IANTHINUM.—A soft-wooded half-shrubby plant, from Mexico. It is of the Eupatoria order. The plant blooms freely when grown in a pot, and rises about a foot high. At Kew it has been kept in the stove; but Mr. Smith supposes it will flourish in the open ground during the summer season. The flowers are produced in large corymbose heads, purple, and the long styles are also purple. Each blossom is about an inch across. (Figured in *Bot. Mag.*, 4574.)

HEMIANDRA PUNGENS.—A dwarfish shrubby plant, from the Swan River colony. It forms a pretty shrub in the greenhouse. The flowers are produced in long spikes. Each blossom three-quarters of an inch across the mouth, and the tube about the same. Of a pinky-lilac,

spotted with numerous red dots. A neat pretty plant. (Figured in *Bot. Mag.*)

PENTSTEMON CLOUSII.—Scarlet outside and pure white inside, fine flower, blooming profusely.

PENTSTEMON GENTIANOIDES SALTERII.—Tube white, edged with bright pink, and pencilled with carmine; very pretty.

PENTSTEMON OVATUS.—A beautiful sky blue; blooms in profusion; very handsome.

POTENTILLA GRANDIS.—The flower is of a clear rich yellow colour, larger than a half-crown. The plant is a strong grower and free bloomer. With us it grows two and a-half feet high, quite hardy.

POTENTILLA ANTWERPENSIS.—Of medium growth, flowers semi-double, of a rich orange colour.

POTENTILLA BICOLOR GRANDIFLORA.—A strong grower. Flowers yellow, with a red-tinged margin.

POTENTILLA SMOUTHII.—A golden yellow, beautifully veined with crimson.

POTENTILLA PLANTII.—A rich scarlet, with a yellow centre, large flower; very handsome.

POTENTILLA BAINSI.—Bright crimson, with a lemon spot in the middle of each petal; very fine.

POTENTILLA INCOMPARABLE (Plant's).—A very rich deep crimson, large flower, and most superb.

The above *Potentillas* and *Pentstemons* are admirable plants for bedding, or in patches in borders. They merit a place in every flower garden.

ROGIERA CORDATA.—A neat stove shrub, which forms a bush four feet high. A native of Guatemala. The leaves are as large as those of the *Ixora coccinea*. The flowers are borne in large cymous heads; five inches across, very similar in appearance to those of an *Ixora*. The tube of each flower is half an inch long, and a quarter of an inch across the top, of a pretty delicate rose colour. The plant blooms freely, and is very ornamental when in profuse bloom. It is in the London nurseries. (Figured in *Bot. Mag.*)

SALVIA PSEUDO COCCINEA.—An old but beautiful flowering Sage. The flowers are borne in long spikes, tube nearly an inch long, of a rich deep scarlet colour. It blooms profusely in the autumn and winter. (Figured in *Parson's Flower Garden.*)

VANDA TRICOLOR.—This very beautiful Orchidæ is a native of Java, and was first introduced into this country by Messrs. Veitch. Sepals and petals yellow ground, with numerous very distinct spots of red; lip rose colour. Each blossom is two inches across. It is exceedingly handsome, and deserves to be in every stove collection. (Figured in *Parson's Flower Garden.*)

WIGANDIA CARACCASANA.—A soft-wooded plant from Caraccas, requiring to be in the stove. It is of the *Hydroleæ* order of plants. The

flowers are borne in large panicles, or terminal compound racemes. Each blossom is an inch across, short tube, and five-parted mouth, of a pale violet colour. (Figured in *Bot. Mag.*, 4575.)

PLANTS IN BLOOM IN THE ROYAL GARDENS OF KEW.

In the Stove.

GESNERA HERBERTII.—Many in profuse bloom, having spikes of flowers two feet long; the large fine scarlet blossoms, beautifully spotted inside with dark crimson, had a splendid appearance; as also some fine specimens of *Achimenes picta*.

PHLEBODIUM AUREUM.—An *Æschynanthus*-like plant, blooming freely. The flowers are produced in heads of eight to ten in each, an inch and a-half long, of a rich deep scarlet colour. Very handsome.

BIGNONIA SPECIOSA.—A climber, blooming profusely; each blossom is near five inches long, and four across the mouth; tubular portion nearly white outside; inside lilac, with deep rosy streaks. Very pretty.

HIBISCUS ROSA-SINENSIS.—Double scarlet and buff; both very handsome.

ARDISIAS.—Still beautifully adorned with a profusion of rich red berries.

VICTORIA REGINÆ.—The young plants are flourishing admirably, and one was this day in bloom.

SALVIA GESNERIFLORA.—This very showy species, with its large rich scarlet flowers, is now one of the finest ornaments of the greenhouse. It deserves to be in every one.

There is also a fine collection of New Holland plants in bloom, generally what are termed of the *Pea-flowered* class. Nearly all are neat-growing-shrubs, profuse bloomers, and have handsome flowers; all are especially interesting and ornamental, highly meriting a place in every greenhouse.

The following were in beautiful bloom:—

CHOROZEMA VARIUM.—Flowers a deep orange yellow, and the keel a rich blood crimson. The contrast is very striking, and renders it one of the best.

CHOROZEMA CORDATA.—Neat yellow, with a rosy-red keel, neat and pretty. There is a variety of this, whose flowers are a bright orange-scarlet, with a rosy-purple keel.

CHOROZEMA HENCHMANNIA.—Rosy-red, yellow eye, with a deeper-coloured keel.

PODYLOBIUM TRILOBATUM.—Neat three-lobed leaves, flowers yellow, with a deep-red keel, three-quarters of an inch across. Very pretty.

PULTENÆA RETUSA.—Bright yellow, six to eight blossoms in each terminal head. The foliage is small and pretty.

PULTENÆA THYMIFOLIA.—Pretty small foliage, dwarf and bushy; flowers golden yellow, with the back side of the petals a dark maroon; blooms in profusion.

PODOLOBIUM STAUROPHYLLUM.—Holly-like leaves, flowers of a rich deep yellow, with a red keel, near an inch across. Showy.

EUTAXIA MYRTIFOLIA.—Neat lance-shaped foliage, flowers yellow, with red eye and keel; blooms profusely. Pretty.

BOSSIAE LINOPHYLLA.—Pretty narrow leaves; flowers bright yellow, with red eye; profuse bloomer. Very showy and neat.

PLATYLOBIUM FORMOSUM.—Bright yellow inside, red outside, nearly an inch across. Pretty.

PULTENÆA POLYGALIFOLIA.—Bright yellow, half an inch across; neat small foliage. Very pretty.

BOSSIAE CORDIFOLIA.—Pale yellow, with a dark keel, and neat small heart-shaped leaves. Very pretty.

GOODIA PUBESCENS.—Bright yellow, with a dark eye and neat small foliage; blooms very profusely.

GASTROLOBIUM SPINOSUM.—A deep orange-yellow, with a dark crimson keel. Very pretty.

The above Pea-formed flowering plants are neat and shrubby, and very distinct from each other. They bloom very freely, and for a long period; also can be procured at a trifling cost.

ZICHIA TRICOLOR.—A neat twining plant, covering a wire-frame four feet high, and most profusely in bloom. Its numerous large heads of flowers, orange, scarlet, and yellow colours in each blossom, have a beautiful effect.

BORONIA DENTICULATA.—Flowers a pale lilac and purple shade, half an inch across, pretty; as was *B. PRIMATA*, with its pretty pink flowers; and *B. MICROPHYLLA*, with its flowers, white inside and pink outside; its small neat foliage added to its beauty. Each flower nearly an inch across.

WESTRINGIA ERIMECOLA.—The flower is somewhat of the shape of a *Schizanthus pinnatus*, an inch across, white, tinged with lavender, borne in profusion; the leaves are small. It is a neat shrubby plant.

STRUTHIOLA STRICTA.—Neat plant, small foliage, flowers white, in spikes, and every shoot has a spike of them. Pretty.

TEMPLETONIA GLAUCA.—Each flower an inch and a-half long, pea-shaped, a deep red.

ZURIA LANCEOLATA.—Leaves small, three-lobed, and the shrub is very neat and compact in growth; four feet high. The flowers are about the size of the Plum blossoms, white, and produced in such profusion that the plant is covered with them. Very neat and pretty.

PHYLLANTHUS CALYGINUS.—A neat shrub, with small oval leaves. Each blossom, six petals, half an inch across, greenish white. Singular and neat; blooms profusely.

PROSTRANTHERA ROTUNDIFOLIA.—Each flower is in form like a small *Gloxinia*, nearly an inch long, of a pretty lilac, borne in profusion, and foliage small. A neat pretty blooming shrub. *P. VIOLACEA*, too, was in bloom; the flowers less, and not so pretty as the former.

LINUM FLAVUM.—Its bright yellow flowers, an inch across, produced in profusion on dwarf plants, are very pretty.

BEAUFORTIA DECUSSATA.—A neat plant, small foliage, and its fine crimson thread tasselled-like flowers have a fine appearance.

TROPÆOLUM TRICOLORUM.—A large plant, in fine bloom. Truly admirable.

EUPHORBIA JACQUINFLOREA.—This is one of the loveliest blooming stove plants. Its profusion of (spikes) rich orange-scarlet flowers, each the size of a fourpenny piece, are truly beautiful. It ought to be in every stove.

In addition to the *Ericas* we noticed in the March Number, the following are the best now in bloom, viz.,—

ERICA CERINTHOIDES MAJOR.—Flowers in terminal heads, tube an inch and a-half long, a rich scarlet. Very handsome; ought to be in every collection.

E. M'NABBIANA.—Tube bellying, an inch and a-half long, rosy-red upon a light ground, with a white tip. Very handsome. Dwarf grower and free bloomer.

E. GRANDINOSA.—Very small pure white flowers, borne in vast profusion, covering the plant with a white mantle of little pearls. Very pretty.

E. SULPHUREA.—Tube an inch long, hairy, sulphur tinged with green. Very neat.

E. PERSOLUTA ALBA.—Flowers very small, white, with black anthers, which have a very pretty contrast, and render the plant most interesting; it is covered with bloom.

E. DELECTA.—Flowers erect, short tube, which is about half an inch across the top; they are produced four or five together in a cluster; a French lilac colour, with a darker centre. Very neat.

E. INTERMEDIA.—Tube one inch, borne in long spikes around the shoots, drooping, white. Delicately pretty.

E. SINDRYACA.—Bell-shaped, half an inch long, purple below, and the rest flesh colour, in profusion. Very pretty.

E. CISTIFOLIA.—Small flowers, white, with black anthers. Very pretty; ought to be in every collection.

E. BEAUMONTIANA.—Bell-shaped, smallish size, flesh colour. Pretty.

E. LINNÆOIDES SUPERBA.—Tube one inch, purple below, and the rest white, in profusion. Neat and pretty.

E. ODORATA.—Bell-shaped, half an inch long, white, fragrant. Pretty.

MURALTIA STIPULACEA (formerly a *Polygala*).—The flowers are small, produced around the stems in long spikes, of a bright violet colour. Very pretty.

BRACHYSEMA LATIFOLIA.—A large plant, twined round a circular wire frame five feet high, in most profuse bloom. The large pea-like, deep crimson and red flowers have a fine appearance. It is highly ornamental as a greenhouse twining plant at this period of the year.

HARDENBERGIA MACROPHYLLA.—This pretty twining plant, with its profusion of pea-shaped light-blue flowers, were very pretty in the greenhouse.

GLOXINIA BARON DE VOIRE.—Tube white, having five ridges, of a pale blue colour. The mouth white, edged with light blue. Very pretty, and worth being in every collection.

INDIGOFERA ROSEA.—Its profusion of smallish pea-like flowers in terminal spikes have a very pretty appearance, and render it worthy a place in the greenhouse.

ACACIAS.—A considerable number of beautiful kinds were in bloom ; but we must omit their description at present, as well as the list of hardy herbaceous plants now in bloom. In our next they will appear.

CINERARIAS.—There are numbers in the greenhouse of the very best kinds, highly ornamental, diffusing, with the Acacias, a delightful perfume.

ON THE CULTIVATION OF VIOLA PALLIDA PLENA, OR NEAPOLITAN VIOLET.

BY MR. GEORGE FRY, GARDENER TO MRS. DENT, MANOR HOUSE, LEE IN KENT.

THIS truly beautiful little fragrant plant being an especial favourite of mine, and having been *very successful* in its cultivation, I now forward a few remarks relative to the management pursued, not, however, presuming I can throw any *new light* upon the subject, my object being merely to give a few practical hints at a seasonable period, which I trust may be useful to some of your numerous readers, more particularly those young tyros who are desirous of acquiring a knowledge of the best means of cultivating some of Nature's choicest treasures.

Propagation.—This is readily performed during the spring months after the blooming season is past. The precise period being regulated according to the condition of the plants, and the season they are required to produce their flowers. Plants intended to bloom early in autumn should be increased early in spring, say the latter end of March or beginning of April; and those not so required may be propagated any time from the latter end of April to the early part of May.

As soon as the plants have ceased to bloom, by a little encouragement they will produce numerous lateral shoots, which will readily emit roots if taken off and be somewhat thickly inserted in a compost composed of light maiden loam and thoroughly decomposed leaf mould, with a good portion of silver or river sand well blended together, and pressed firm. They should be watered with a fine rose watering pot, and covered with the portable tops of hand glasses. They must be shaded too from the intense rays of the sun and kept close, removing only to dry up superfluous moisture, and to give an occasional sprinkling should they at any time appear dry.

After Treatment.—When upon examination the plants are found to be well rooted, preparation should be made for planting them out in a bed on a border rather shaded than otherwise, but not entirely excluded from the sun's influence. If the natural soil be not sufficiently good, some of the previously mentioned compost should be forked into it, well mixed, made firm and even. The plants should be carefully taken up, and be planted from six to eight inches asunder, after which give a copious watering, and shade them for a few days until they have made fresh roots. As the season advances it is only necessary to stir the soil between them, checking the growth of all intruders, and in dry weather liberally supplying them with water; they should by no means lack *this feeding* and life invigorating element, or they will not realize the

anticipations of the manipulator. I am fully satisfied that blindness of flowers is generally the result of *this want* of attention, to say nothing of the red spider, green fly, &c.

Final Treatment.—About the latter end of August, or the beginning of September, those intended for early autumn flowering should be transplanted to their final quarters, and in preparing to do so it is indispensably necessary that they should be placed far beyond the evil of stagnant or local moisture, as the Violet, although delighting in warm refreshing showers, and liberal waterings when required, is very impatient of an excess of humidity continually about them. To avoid this state of things, select a situation that has the advantage of being warm, dry, and airy. The beds should be raised to an elevation of two or three feet; these should be constructed of old dry hot-bed linings, or half decayed leaves, or both thrown up together to the desired height. Upon this stratum place the frame, or frames, and at the same time see that the sashes are in the best possible condition. Having proceeded thus far prepare for planting in the following compost, viz., four parts of well decomposed turfy loam from an old pasture, one part of two or three year old cow manure, one part of thoroughly decayed leaves, one part of coarse sand or road grit, with two of well pulverized rich yellow loam; these should be mixed “at the time of using,” so that the whole may be well incorporated. The coarsest of this should be put in first, then the other on the top of it to the depth of eight to ten inches. Take up the plants with roots entire, and plant them eight inches apart every way, pressing the soil firmly about them; when completed thoroughly water the whole with soft water, as rain, river, or which has been exposed to the atmosphere for a few days; hard water is very injurious to the plants. Shade and keep them close for a short time, to allow the plants to get a little established, after which let them have plenty of air by fully exposing them in favourable weather. As the autumnal sun, in a great measure, withdraws his genial influence, ventilation may be gradually diminished, more particularly when they commence yielding their odoriferous flowers, which will cause the stems to become proportionately long, and render the flowers more conveniently suitable for the *bouquet*.

The temperature I endeavour to maintain ranges from forty-five to fifty degrees, consequently—

*When chill November's surly blast
Makes trees and forests bare,*

I put a good lining of fresh unfermented leaves, three or four feet thick, and as high as the tops of the frames. Securing the whole by fixing hurdles all round them, these throw a steady warmth into the beds, which lasts for a long time, assisted by a good covering of mats in frosty weather.

If they are required to embellish and perfume the drawing-room or conservatory, it is necessary only to plant them in well-drained pots instead of planting them out, and plunge the pots up to the rim in the beds in coal-ashes, from which they can be removed when in full bloom. In the application of water it is an essential point to do it judiciously,

do it thoroughly too when it is done, repudiate the dribbling system; very few waterings will be necessary during the dark months of autumn and winter, they should be kept in that satisfactory medium state neither too wet or too dry.

During fine warm genial showers the lights may be taken off for a few hours, and if attention be paid to this it will be found much better than artificial watering. By pursuing the above mode of cultivating this, "the Queen of Violets," I have gathered them three inches in circumference, and of the richest possible *azure-blue*. Nothing, in my opinion, can afford so grateful a perfume in the depth of hoary winter as a nice bouquet of these charming flowers.

HINTS ON THE CULTURE, AND A SELECT LIST OF ROSES FOR EXHIBITION.

BY MR. GEORGE COMPTON, GARDENER TO WILLIAM SIMPSON, ESQ., STAMFORD-HILL, NEAR LONDON.

To those inexperienced in the cultivation of Standard Roses, the following treatment, as pursued by me, may be acceptable. During the flowering season, if convenient, I make choice of my plants, as it enables me better to judge of their respective habits and distinctness of colour. By the latter part of October I prepare for planting, by procuring some good adhesive loam, adding to it about one-third leaf mould, the whole is well mixed; in this compost, with me, they have thrived remarkably well.

I plant early in November, that the plants may be somewhat established in the soil before severe weather commences. Immediately on planting a strong stake is fixed to each plant, to which they are tied; if not done the wind may afterwards injure the plant, by deranging the action of the newly-formed roots. During spring I occasionally water them with liquid manure, applying it in proportion to the strength of the plant; in fact they require to be liberally supplied during the first season of their growth. I do not prune them till the month of April, but the second and succeeding years I prune them severally in the months of January, February, and March; for instance, the Hybrid, China, Bourbon, and Noisettes, in the month of January, those of moderate growth to two or three eyes. In February the Hybrid Bourbons and Damask Perpetuals; and the more tender varieties, as the Tea-scented and China, in the month of March. The vigorous growing kinds, when treated as Pillar or Climbing Roses, require but little pruning, as *Brennus* and others of similar habit. At the period of the flower-bud beginning to swell it is liable to be deformed or destroyed by the green fly. As soon as any appear I adopt the following method of destruction. To one gallon of boiling rain-water I steep one pound of tobacco, and in two gallons of soft warm water four pounds of soft soap is dissolved, beating it into lather; I then mix the whole in seven gallons of cold rain water; I then with a hand-syringe freely sprinkle each tree with the solution, making choice of a dry day for the operation, as it enables me to destroy them more

effectually. I afterwards cleanse them by syringing with clear cold water. By adopting the above practice I have successfully competed at the Horticultural Exhibitions in this neighbourhood.

The following is a select list of those varieties I have exhibited, and which I recommend for the above purpose:—

FOR SINGLE BLOOMS.

French Gallica :—

Boula de Nanteuil.
Gloire de Colmar.
Kean.
Shakespeare.

Bourbon :—

Captain Sisolet.
Coupe d'Hebe.
Great Western.
Henri Barbet.

Hybrid China :—

Brennus.
Duke of Devonshire.
Triomphe d'Angers.
William Jesse.
Duke of Sussex.

FOR TRUSSES.

Hybrid Perpetual :—

Geantides Batailles.
Baronne Prevost.
Duchess of Sutherland.
Madame Laffay.
La Reine.

Bengal Roses :—

Mrs. Bosanquet.
Carmin de Yebles.

Hybrid China :—

Triomphe de Laquene.

Noisette :—

Jaune Desprez.
Solfaterre.

Belgic Rose :—

Etoil de la Malmaison.

The French Gallica Roses are splendid varieties to exhibit for single blooms, but they require superior cultivation to bring them to perfection. The flowers are remarkable for their rich and brilliant varied hues. The Hybrid Noisettes are indispensable on account of the large trusses they produce.

THE CROCUS.

BY ORION.

THE improvement which has been going on so rapid of late years in what are termed "Florists' flowers" has also been going on slowly, though surely, in the more humble class of flowers, in which the Crocus, "the sweet harbinger of spring," takes its rank. For the numerous fine varieties our gardens are now adorned with we are indebted to the Dutch, whose soil is so much more suitable for most bulbs than our own; and it is to be feared that though much has been done by them, yet this flower does not present sufficient attractions to render it a worthy subject for the English hybridizer. Within the last few years, however, there has appeared a new race, with large and bold formed flowers, which ere long will drive out the pale and irregular formed straggling things we have so long been satisfied to grow as Crocuses. As the past flowering season has been of unexampled duration, a few notes of the best varieties may perhaps induce some of your readers to improve their hitherto small and little varied collection.

Little has yet been done with the yellow varieties, a bed without a portion of the golden hue presents rather a monotonous appearance; there has been nothing introduced to rival the "Golden Yellow," the "Cloth of Gold," beautiful as it is, blooms too early to contribute an effect of variety. The following have been proved worthy of a place in any garden, however small, and will succeed as well as the more common varieties:—

Orondates, fine large bright purple.
 Ne Plus Ultra, blue with a light border.
 Deville, large white, richly veined with plum.
 Caroline, a beautiful pure white without stain.
 Mont Blanc, also a good white.
 Prince Albert, a large deep bright purple.
 Favourite, a rich dark blue.

Washington, bright violet-purple.
 Passe-tout, light purple.
 Queen Victoria, a very fine large white.
 La Majesteuse, a noble light flower, richly striped and veined plum.
 Regina, cream-white.
 Bride, pearl-white.
 Calypso, light purple.
 Blucher, violet-purple.
 Vesta, white veined lilac.

BRIEF REMARKS.

HORTICULTURAL SOCIETY, 21, REGENT STREET, *April 1, 1851.*—Messrs. Veitch sent a plant in a pot, and a cut specimen, from a bush growing in the open border of the Darwin Berberry (*Berberis Darwinii*), a new small-leaved evergreen shrub, from Patagonia. This proves to be a species whose importance it is almost impossible to overrate, inasmuch as it is exceedingly handsome, perfectly hardy, and naturally produces its rich orange blossoms in great profusion during the early months of the year. Indeed for general value we have nothing at present at all to be compared with this fine Berberry. A large Silver Medal was awarded it. The same nurserymen also furnished a bloom of the pretty light-coloured striped *Camellia*, named Countess of Orkney.—Messrs. Hayes, of Lower Edmonton, communicated two nicely managed plants of tree Violets, for which a Certificate of Merit was awarded.—Messrs. Standish and Noble produced a beautiful new Carnation-striped *Azalea*, named *vittata*, from China, which promises to be an acquisition. It is quite distinct from any of the striped kinds, and very early. A Knightian Medal was awarded it. The same nurserymen likewise contributed a flowering plant of *Viburnum macrocephalum*, raised from a cutting struck last autumn, and *Limonea laureola* (*Skimmia japonica*), a sweet-scented shrub from the mountains of India, and said to be hardy about Kingsbridge, in Devonshire. It was stated that its natural character is to produce fruit of brilliant scarlet in autumn. A Certificate of Merit was awarded it.—From Messrs. Henderson, of Pine Apple-place, came *Hebeclinium ianthinum*, a promising greenhouse plant with *Ageratum*-like flowers, which were reported to last long in perfection; and a charming collec-

tion of Hyacinths, of which the following are the names of some of the best :—*Light blue* : Orondates, Robinson, Nimrod, Grand Vidette, Grand Lilac, and Passe tout (double). *Dark blue* : Laurens Koster (double), Prince van Sax Weimar, Emicus, Baron van Thuyll, Prince Oscar, and Mignonaude Dryfhout (double). *Violet* : Tubal Cain, William I. and Prince Albert, the latter is very dark. *White* : Helen, Grand Vainqueur, Grand Vidette, La Candeur, and A la mode Epuisée, double white, with a pink centre. *Blush* : Grandeur de Meneilles, Anna Maria (double), Triumph Blandina (ditto), and Tubiflora. *Plum* : L'Unique, a variety much prized for its colour, which is new to Hyacinths. *Yellow or buff* : Anna Paulowna, Heroine (double). *Deep rose* : Amphion. *Red* : Herstelde Vreede, Diebitsch Sabalskansky, Appeluis, Le Francq de Berkhey, and Waterloo (double). *Light red* : La Dame du Laack, and Lord Wellington. The same nurserymen also sent examples of Narcissi, among which the best were Nannette, yellow, and Radiator, white with a yellow centre. A Certificate of Merit was awarded for the Hebeclinium, and a Banksian Medal for the Hyacinths.—Mr. E. G. Henderson, of the Wellington-road Nursery, St. John's Wood, sent an Ixora, two seedling Rhododendrons, a crimson and a light kind ; and a well grown plant of Dielytra spectabilis, for which a Banksian Medal was awarded.—The same Fumewort, evidently grown in less heat, and more highly coloured, was exhibited by Mr. Clark, nurseryman, Brixton-hill ; but by far the finest specimen of this Dielytra was produced by Mr. Edmonds, gardener to the Duke of Devonshire at Chiswick House. The latter was, however, unfortunately disqualified from receiving any prize on account of its arriving too late, it being especially required that all subjects of exhibition shall be in the room two clear hours before the time of meeting. The same thing happened in regard to a Java Rhododendron from Messrs. Rollisson, which also came too late to fall under the consideration of the judges.—From Messrs. Lane, of Great Berkhamstead, came a single white seedling Camellia, a specimen of the sweet Trichopil (Trichopilia suavis), and four large boxes of cut Roses, fresh and beautiful as just gathered from their Rose house. They consisted of *Hybrid Perpetual* : Baronne Hallez, crimson ; Baronne Prevost, blush, large and beautiful ; Caroline de Sausal, blush ; Chateaubriand, delicate pink ; Comte de Montalivet, rosy crimson ; Cornet, bright pink ; Dr. Arnal, deep crimson ; Duchesse de Galliera, shaded pink ; Duchesse de Praslin, blush, with pink centre ; Duchess of Sutherland, glossy blush ; Edward Jesse, lilac crimson ; General Cavaignac, rosy pink ; Géant des Batailles, vermilion ; General Negrier, rosy blush ; George Lecamus, rosy blush ; La Belle Amerique, shaded pink ; Lady Alice Peel, rosy crimson ; Louise Aimée, pink, light edge ; Louis Buonaparte, bright rose ; Madame Guillot, rosy crimson ; Madame Laffay, crimson ; Madame Trudeaux, brilliant carmine ; Marquise Boccella, pale pink ; Miss Pepin, delicate pink ; Mrs. Elliot, crimson ; Polybe, rosy purple ; Princess Beljioso, rose ; Queen, brilliant rose ; Regulata, pink ; Reine des Fleurs, pink ; Reine Mathilde, light pink ; Robin Hood, lilac rosy pink ; Sidonie, bright pink ; Standard of Marengo, crimson lake ;

William Jesse, crimson, tinged with lilac ; Comte Robrinsky, beautiful crimson. *Bourbon*: Armosa, rosy blush ; Augustine Marget, delicate bright rose ; Bernardin de St. Pierre, brilliant carmine ; Dupetit Thouars, rich carmine ; Emilie Courtier, bright reddish crimson ; Le Grenadier, bright lake ; Madame Angelina, salmon yellow ; Queen, delicate salmon ; Speciosa, shaded rose. *China*: Abbe Mioland, fine crimson red ; Fabvier, striped crimson ; Miellez, lemon white ; Mrs. Bosanquet, creamy white. *Tea*: Belle Allemande, cream, shaded blush ; Comte de Paris, cream ; Devoniensis, creamy white, buff centre ; Goubault, salmon-shaded rose ; Madame Bravy, creamy white, salmon centre ; Niphetos, pale lemon ; Smith's Yellow, pale straw ; Vicomtesse de Cazes, golden yellow. *Noisette*: A fleur Variable, rosy salmon ; Cloth of Gold, yellow ; Jeanne d'Arc, lemon white ; Mrs. Siddons, fine yellow. A Banksian Medal was awarded for the Roses.—Mrs. Lawrence exhibited a fine specimen of *Enkianthus reticulatus*, two species of *Boronia*, the beautiful violet-blossomed *Mirbelia floribunda*, *Phaius Wallichii*, *Maxillaria Harrisonii*, an *Oncidium* resembling *sarcodes*, and a new and very curious *Epidendrum*, bearing a long, drooping, green flower, which terminated in a broad rich orange-coloured fleshy lip, vieing in brilliancy with the *E. vitellinum* itself. It was stated that it would probably produce flowers in clusters, and if so it must be considered a great acquisition. A Knightian Medal was awarded for this, and a Banksian Medal for the other plants.—Messrs. Loddiges sent a handsome pale rose-coloured *Rhododendron*, raised from Nepaul seeds ; and Mr. Myatt, of Deptford, showed two nicely-flowered *Cyclamens*.—From the Garden of the Society came the fine specimen of *Epidendrum aurantiacum*, which was exhibited at a previous meeting, *Maxillaria Harrisoniæ*, *Angelonia moschata*, *Cyrtoceras reflexum*, the purple *Gesnera*, *Boronia tetrandra*, *Eriostemon cuspidatum*, three varieties of *Epacris*, two species of *Cytisus*, *Franciscea Hopeana*, *Forsythia viridissima* (again produced in excellent condition), the *Gesnera*-flowered Sage, *Salvia gesneriflora*.

A GARDEN OF BULBS.—How universally everybody, even persons comparatively indifferent to gardens, admire the flowers of all bulbous-rooted plants ; yet how few gardens among those in the highest keeping make them form anything like a conspicuous feature in the general arrangement. How this happens I know not, because from February to July, aye even to September, there may be kept up a continual succession of the most neat and lovely, as well as the most gorgeous bloom, according to the taste of the gardener ; not that I would recommend an entire reliance on bulbs, for there are many perennials of quite another class that would wonderfully aid the general effect, and they might be so contrived as to supply those colours which may be most efficient at particular seasons. I am an advocate for bulbs upon the same principle that I am for perennials, apart from their great beauty ; that is, for the little trouble they give one. For the most part they need only be disturbed once in three years, and then only because the increase is so great that they want thinning, so also does a perennial ; indeed so do most perennials, for they spread their roots in three years into large patches, and require to be parted, or they

become uncouth. I have a bulb border; I cannot call it a bulb garden, but it completely eclipsed all the rest of my garden, until, with the increase in the third year, I was enabled to make bulbs a very important feature in the general arrangement, but I will confine my remarks to the bulb border; and although I write from memory and far from home, I will endeavour to convey an idea of its plan, arrangement, and effect. In February and March the principal subjects are the Snow-drop, the early Daffodils, the brilliant *Scilla sibirica*, and the Crocus, of which there are several varieties; then I have the white of the Snow-drop, the yellow of the Daffodils, the bright blue of the *Scilla*, and among the Crocuses the dark purple, the white, the striped, and the golden yellow. Here, then, is but one leading colour deficient; but there are dwarf trees of the *Pyrus japonica* upon the wall, and they from Christmas to the end of spring furnish a great abundance of red. But before my favourite bulbs already mentioned decline, I have early Tulips of many colours, the first of which show their colours before the Crocuses depart, and Hyacinths of many shades in blue, red, and an apology for yellow, and after this the late varieties of the so called early Tulips, and the later Hyacinths and the *Narcissus* tribe assisting them, keep up a complete galaxy of beauty all the month of April and part of May. The *Iris* family, which is immensely extensive, begin to help me, and the late Tulips take their full share of decoration until the *Iris* become numerous and various, when the Lilies render great service, and continue, with some of these species, to enliven the borders to about the end of summer. Now during all these months very little aid is required to keep up a full bloom, and I have not once contemplated disturbing the ground, except by hoeing carefully to destroy weeds, nor do bulbs require watering. I do not conceal the fact that I was a considerable time before I could please myself with the arrangement to keep something like a uniform quantity of flowers always on the border, for it was only 4 feet wide, but I derived infinite pleasure from the changes I made from year to year, and I will also confess that now that I have distributed bulbs moderately in the general borders, I am better pleased with the other part of the garden than with the border dependent on bulbs, except so far as it interests me as an experiment; for they are brilliant additions in early spring, and greatly assist the general effect all the year. At times the bulb border is almost too dazzling, yet I am convinced that I shall in time so regulate it as to secure a good bloom nearly the whole year; at the fall I now have, to succeed everything, the autumnal Crocuses in variety, and the (so called for many years) *Amaryllis lutea*, so that there is a fair struggle to keep the flowers up to winter. My greatest trouble is in keeping the border neat as the various bulbs go out of bloom, but as fast as the stems or leaves turn yellow I shorten them to the part that is a good colour, and thus manage pretty well. I would not go so far as to recommend everybody to try a border of bulbs, but I would advise them to have in all the borders a few patches (for all bulbs look best in patches) of Snowdrops, Crocuses, *Scilla sibirica*, and the earliest Daffodils in sixes. A few patches of Hyacinths in threes, early Tulips the same; if these several patches were ten

yards apart they would still do wonders in "lighting up" the garden as it were. I have patches of dwarf bulbs, six feet apart, all along my border, but as I give all of them fair play the patches of each family are a considerable distance from each other; all these are within six or nine inches of the edging. Half way between them I have patches of taller bulbs, Iris, Lilies, &c., but I only plant these patches twelve feet apart, so that they come in the centre, but further back between every alternate two of the dwarfs. I may be a little particular, but I place the same kind in all cases opposite each other. I have strongly recommended one of the great importers of bulbs to make out his catalogue for next season, with the names of all bulbs flowering in the particular months, so that a tyro may order exactly what he wishes. There are many bulbs of great interest, but little known by their names, and London seedsmen are generally unable to inform us anything about them; but a descriptive list, with the heights, colours, season of planting, season of bloom, would be valuable. The principal points that require attention in the culture of bulbs are—1st, to have the ground well drained; 2nd, to have the soil rich and light; 3rd, to plant them before they make the least effort to grow; 4th, not to take them up until the leaves have died down; lastly, while they are out of ground, to protect them against heat, frost, and damp. I feel assured that if those who do not make bulbs a feature in the gardens will but try the effects of a few Hyacinths, a few Crocuses, a few *Scilla sibirica*, and a few early Tulips, they will very soon desire to add to their list of bulbs.—*E. Mordan, St. Dunstanford, N.B.—Gardener's Chronicle.*

MODEL OF A GREENHOUSE, 4 FEET 2 INCHES SQUARE, ON THE RIDGE AND FURROW FLAT-ROOFED PRINCIPLE.—On the repeal of the glass duties, Messrs. Hartley and Co. erected several of these, with a view of showing how the materials of glass and iron, or wood, could be best adapted for the economical construction of conservatories. They put up one in the gardens of the Horticultural Society of London in 1846, and sold several others, among the rest one to W. H. Walker, Esq., Newcastle. Mr. Hartley was the first person to suggest the flat ridge and valley roof for buildings of this kind, thereby doing away with a lap-joint in the glass—a great desideratum, for each ridge is glazed with one single square of glass. He recommended the Royal Commissioners twelve months ago, long before Mr. Paxton came forward with his plan, to adopt the principle for the Crystal Palace, offering, as we have heard, to furnish specimens and estimates for the whole building. A section of a ridge and valley roof was exhibited, the span being ten feet; thus giving in a building such as the Crystal Palace, multiples of ten in place of eight feet, as in that building. This, however, with the high wages paid to Frenchmen, who are employed to blow sheet-glass, would add greatly to the cost were sheet-glass employed. Messrs. Hartley, foreseeing this in 1846, invented a description of cheap rough plate, with which the section of roof is glazed, the size of the squares being 62 inches long and 18 inches wide. This glass is one-eighth of an inch thick, or thirty ounces to the foot (the glass in the Crystal Palace is sixteen-ounce sheet, or one-sixteenth

of an inch thick), and, per pound, is the cheapest description of glass manufactured, being sufficiently strong to resist any hailstorm. — *Northumbrian*.

MIGNONETTE.—As the common Mignonette has ever been an especial favourite on account of its sweetness, perhaps the following method of inducing it to assume the character of a bush may not be uninteresting:—Not later than the beginning of April, sow a few seeds in deep pots, filled with rich sandy loam; place them in a melon-frame where there is a good moist heat; when they have made about four leaves, pick out all but one strong plant in each pot; as they grow, pinch off all side shoots, taking care to leave a leaf at the bottom of each. When the plants have attained the height of twelve inches they will show their blossoms. The latter must be nipped off, and at the same time the plants will require tying up to thin sticks with matting; leave them about a week longer in the melon-frame, taking care to pinch off all side shoots; then remove the plants to the greenhouse, where they will have less water and plenty of air. In a short time they will again begin to put out the top shoots; but only one on each must be retained, which must be led up the sticks, and all side shoots again pinched off. By this time the plants will be about eight inches high; the bloom must be again cut off, and the plants still kept in the greenhouse. In the autumn they will put out plenty of shoots from the top, and will form handsome bushes, which will come into flower in the following March. By cutting off the flowers occasionally for bouquets in the spring they will send forth fresh shoots, and will continue to flower all the summer.—*Gardeners' Chronicle*.

THE CHRYSANTHEMUM A SPRING FLOWER.—On April 12th some flowers were sent to the Horticultural Society's meeting, and the person who forwarded them remarks in the *Gardeners' Chronicle* that they were treated as follows:—"Towards the end of the plants flowering (last season), and when they began to throw up their new wood, instead of turning them out into a cold frame, I quietly put them into the stove, and there kept them up to the present time. Two plants were only tried, but both succeeded. There is a peculiar look of hard dry health about them, not easily described, but which is not seen in plants bloomed in our damp autumns. There is not a dead leaf from top to bottom; and fresh bud blossoms and blooming wood are being thrown up daily, as if the plant never would leave off. It always seemed odd to me that the Chrysanthemum should be ten months, more or less, preparing to flower."—*Micklewell*.

CHINESE PRIMROSES.—Sow seed, in heat, as early as possible; pot the plants off as soon as large enough; repot when required; and such plants will answer your wishes by blooming from August to the following spring.

PIMELEA DECUSSATA.—(*To H., Cornwall.*)—When the new shoots are about half ripened, cut them off close under a joint, at about an inch and a-half long; dress off the lower half of the leaves, and insert them deep in silver sand; cover with a bell or small hand-glass. Plunge them to the rim in some material in a striking-house, if you have one. They do not at that period of summer require any bottom

heat. If no striking-house, an exhausted hot-bed will do equally well. The usual attention to keep the sand barely moist, to dry the inside of the glass once a-day, and shade from hot sun, being given, you will find them strike root readily. The *Ipomæa* you mention we do not know. We will inquire about it, and you shall hear from us again.

FANCY PELARGONIUMS (*A. H.*)—The disease you complain about is one that these high-bred varieties are very subject to. It is called *spot*, and sometimes *gangrene*, and originates from various causes, such as unsuitable soil, a stagnant or humid and cold atmosphere, injudicious watering, and the use of impure and highly enriched soils; sudden changes of any kind will also induce it; and some varieties are constitutionally subject to it. When it presents itself in its most malignant form it is almost impossible to eradicate it or stay its progress; but if the plants are attended to directly it shows, it may be cured. In addition to the marks or spots upon the leaves, the plants will show brown marks upon the stem and foot-stalks of the leaves, and be exceedingly brittle, and present a glossy, nay almost a glassy, appearance upon the surface of the leaves. This is its worst form, and the remedy to be taken is to shake the plants out of the soil, wash the roots if necessary, and repot in fresh turfy loam and leaf-mould, liberally intermixed with sand, and charcoal in small pieces. Place the plants in a warm and airy place, and water with great caution, until they get into good growth. Large plants, after they get into free growth, cannot so safely be shaken out; therefore remove as much soil as you can with safety, and repot into the same compost, not forgetting the charcoal, as it is to its universally purifying influence that you must mainly look for success. When the plants are first affected, if taken in time, an occasional watering with lime-water and free ventilation will check the progress of disease; but it is almost impossible to eradicate it when fairly established. It is more than probable that the high breeding, or breeding "in and in," as is the case in the animal kingdom, has tended much to induce the disease, for it is quite certain nearly the same effects proceed from the same causes in the vegetable as in the animal creation; and so long as raisers of Pelargoniums continue to breed from the most delicate kinds, so long will this disease, which under such circumstances is constitutional, continue to increase. High breeding and high feeding among plants produce disease in the end; and if we are to "deserve success," more attention must be paid to the selection of parents, more especially the female parent. A short time ago we had plants of Field Marshal and Salamander much affected: they were potted and introduced into a temperature of 45 to 60 degrees, in which they have grown some inches in length, and are now quite healthy. The same experiment we intend to try with some other kinds.—*Magazine of Botany.*

GLOBE AMARANTHUS.—These very beautiful flowering plants deserve a place in every greenhouse or stove, and are most lovely summer ornaments, amply repaying for every attention given. When the plants are two inches high, pot off singly into small pots, in a loamy soil and well-rotted leaf-mould equal parts. Plunge them in a hot-bed frame. When nicely rooted at the sides, repot into larger, till they are in the

pots to bloom in, such as nine to twelve inches across. At each re-potting use a more rich compost by adding well-rotted manure, bits of charcoal, and a *free* drainage. I have had plants two and a-half feet high from the pot, and as much across, spangled over beautifully with their lovely flowers.—*A Nobleman's Flower Gardener.*

MOSS ON LAWNS.—Many complaints have been made relative to the destruction of the grass by an accumulation of moss. To be saved from this annoyance, always begin to mow early in the spring; that is, as soon as there is anything for the scythe to cut. Attention to this throughout a season will destroy the moss. When the mowing is deferred in spring, the moss destroys the *fine* grass by covering it, and only the strong coarse grass will survive. Where the moss now prevails, rake it up by means of a wood-rake; after raking, sweep with a stiff besom, and mow as soon as required. I once destroyed the moss on a large lawn by applying a liberal sprinkling of fine-sifted quick-lime, first in November, and again early in March.—*A Long Observer.*

PIMELEA DECUSSATA.—I observe in the April Number a correspondent asks for information relative to the *propagation* of this plant. The following account of a method recommended by Mr. Fish, a clever gardener, with the *Pimelea* family will, perhaps, be of some use to the inquirer; I, therefore, forward it:—

“*By Cuttings.*—If any shoots have missed having flower-heads at their points, these points will proceed to grow as the flower-buds commence to expand. In other instances, sometimes young shoots will protrude from behind the flower-heads. In either case an opportunity is afforded for obtaining a few early cuttings in March and April, the advantage of which is that the plants will be struck, potted off, and established in their pots before winter. When these young shoots are from one to two and a-half inches in length, and getting just a little firm at the base, is the best time for taking them off, and inserting them in the cutting-pots. When cuttings cannot be got by either of these means, we must *wait* until the beauty of the flowers is gone, then cut them all neatly off, give any little pruning that is necessary to regulate shape and outline, as the two-year-old wood will generally break freely enough, and then wait until young shoots are formed, when as many may be thinned out as will be requisite for cuttings. Cuttings from older wood will strike; but then they require much longer time, are not so certain, and after all seldom give such healthy free-growing plants. In preparing the cutting-pots, let them be three-fourths filled with drainage, or place a smaller pot topsy-turvy inside of a larger one, and fill the space between to a similar height with drainage, then strew a little green moss to keep the drainage clear, over that some lumpy fibry peat, over that finer sandy peat, and over all from a quarter to half an inch of pure sand. If below this sand, or even blended with it, unless at the very surface, there is a little fine-pounded clean charcoal, but not mere dust, that being separated by a very fine sieve, the cuttings will strike all the sooner, and be less liable to damp off. The pots should be well watered, and allowed to drain before inserting the cuttings, the making of which consists in removing a few of the lower leaves, and cutting clean across with a sharp knife, and

then the small holes made by the dibber should be filled with sand, and all gently settled with fresh watering, and the cuttings and surface sand allowed to get dry before the conical-headed bell-glasses are firmly fixed over them. They may then be placed in a close frame or pit, about eighteen inches from the sashes, in April, and two feet in May; and in such a position they will require little shading, and but little watering, until they are struck. As soon as that has taken place the plants must be elevated nearer the glass, the bell-glass removed by degrees, taking it off first at night, then mornings and afternoons, and ultimately altogether. In the case of cuttings struck with so little soil to feed on, and in the case of all plants raised by seed, the sooner they are pricked off the fewer will be the casualties, and the better will they thrive.

“*By Inarching and Grafting.*—The first is seldom practised, owing to its inconvenience; the second is often resorted to as the means of procuring a good-sized plant much more quickly than from seeds or cuttings. It is of importance to have stocks of free-growing kinds, such as *decussata* and *dupracea*. These should be from two to three years old from seedling or cutting. All that is necessary is to have the stock a little in *advance* of the scion, and then, provided you can make the inner bark of both unite, it matters little what mode be adopted, though side and slit grafting will generally be the neatest and quickest done. A few twigs may be left on the stock to draw up the sap until the scion has fairly taken. A close frame or pit will be desirable; and if a little steam from sweet dung and leaves, the union will take place all the sooner, from the excitement and moisture. April is the best time. Air must be given afterwards gradually, and the scion allowed to monopolize the whole strength of the stock. This mode is most applicable for all the low, slow-growing kinds, as thus additional vigour is imparted to them.”

The following are the best sorts, and well suited for the greenhouse. In order to keep the plants bushy, they require cutting in as soon as done blooming; and if done early in the summer, the new shoots are well ripened before winter. All flourish in a compost of fibrous sandy peat, and about one quarter of turfy loam, a year old, with a sprinkling of bits of charcoal, and a liberal drainage; compost broken, not sifted:—

P. rosea.—Flowers a pretty rosy-red. A neat bushy plant, the nicest size for the greenhouse; is about half a yard to two feet high; at that height this and all the other kinds are readily kept.

P. rosea Hendersonii.—The habit of this plant is similar to the other; but the colour of the flowers is much brighter and more showy.

P. intermedia.—A neat plant, with light-pink flowers. Blooms freely.

P. hispida.—Flowers vary in colour, from white, blush, to pink. It is a neat-growing-plant; blooms freely.

P. spectabilis.—Flowers flesh colour, tinged with a deeper, in large heads, showy. It blooms freely; and valuable, too, as a winter bloomer.

P. diosmæfolia.—Flowers rose coloured; blooms freely. It is a neat shrub.

P. macrocephala.—Flowers light-flesh colour, in large heads. The plant is more robust than any of the others.

P. decussata.—Flowers rosy-red, showy. The plant is of neat growth, and a free bloomer.

THE NATIONAL FLORICULTURAL SOCIETY.—This new Society held its first meeting for the exhibition of SEEDLING FLORISTS' FLOWERS at the Rooms, 21, Regent-street, London, on Thursday, the 3rd of April. The attendance was good. The rooms were ornamented with a fine display of Cinerarias and other plants. The following seedlings were considered by the censors as worthy of notice:—

Messrs. Henderson, of Pine-Apple-place, sent a truly fine collection of the best kinds of Hyacinths, all legibly named; also a collection of Epacris, amongst which was that fine variety named Epacris hyacinthiflora candidissima; also a nice selection of new Narcissus tazetta, better known as the Polyanthus Narcissus. There were also small collections of Polyanthus, Gloxinias, &c.

These plants, in full bloom, and generally well grown, were very creditable to the different exhibitors. The grand object of the meeting was the seedlings. In Cinerarias the numbers were considerable; we wish we could say the merit of them was equally so. Very few were placed by the censors.

Mr. Ayres sent a seedling of great merit, named Orpheus; form first-rate, habit good, petals of good substance, colour a deep rosy-lilac, disc rather small. This obtained, and deservedly, a Certificate.

Mr. Smith, of Tollington Nursery, sent also a seedling, pure white with a blue disk, size medium, form good, petals well shaped, but rather thin. A Certificate was given to it.

Mr. E. G. Henderson, with several others, sent one named Loveliness; white ground, reddish-purple tip, dark disc. This variety has first-rate properties; but some of the petals of part of the blooms was defective. The censors wished it to be exhibited again, and only passed a favourable opinion upon it. The same gentleman sent another desirable variety, named Christabelle, which was not sufficiently expanded, but promises to be a good variety. This also was desired by the censors to be sent again when in better condition.

Mr. Bragg, of Slough, sent a pan of Pansies.

Mr. Turner, of Slough, sent a pan of Pansies, and some Auriculas well bloomed.

Mr. Rogers, of Uttoxeter, sent two seedling Cinerarias, which, when better grown, the censors thought would be desirable varieties. They were, Field Marshal, white ground, delicately tipped with sky blue, good form and substance; and the other, Lady of the Lake. This was a well-formed flower, of good substance, ground colour white, with pale rose tips. The censors desired these two also to be sent again.

Mr. Turner sent some seedling Pansies, one named National, creamy-white ground, purple margin, fine yellow eye, good form, but rather rough at the edges, probably owing to the cold wet season. The censors desired this to be sent again.

Mr. E. G. Henderson obtained a Certificate for a seedling Rhodo-

dendron. Trusses large, flowers well shaped, bluish white, the top petal richly dotted with dark crimson spots. It was named *R. superbissimum album*.

Messrs. Standish and Noble sent an *Azalea Indica*, named *Vittata*, the merits of which were novelty in colour, being of a creamy white with purple stripes.

The above were all the seedlings the censors thought worthy of notice: and this is as it ought to be; unless seedling flowers are decidedly *superior* to the *older varieties*, it is an imposition upon the public to send them out as new and improved varieties. The censors at this meeting were determined not to notice any *inferior varieties merely because they were new*; and this principle, we hope, will be carried out to the fullest extent.

Messrs. Veitch, of Exeter, sent a fine cut sample of their *Fuchsia spectabilis*; also a cut specimen of *Rhododendron jasminiflora*; a tolerable seedling *Camellia*, named *Storeyii*, its fault being having the petals too much pointed.

Upon the whole this is a good beginning of the Society, and we trust it will act up to its professed principles, and thus become a vehicle for proclaiming to the public *really good* seedling flowers.

The second meeting of the Society was held on April 24th. *Cinerarias*, *Auriculas*, *Pansies*, and *Rhododendrons* were the principal flowers shown. Certificates of Merit were awarded by the censors to the following:—

A *Pelargonium*, named *Chieftain*, exhibited by Mr. Hoyle, of Reading.

A fancy *Pelargonium*, named *Formosissimum*, by Mr. Ayres, of Blackheath.

A *Cineraria*, *Alba magna*, by Mr. Smith, of Hornsey-road.

An *Auricula*, *Beauty of Bath*, by Mr. Griffin, of Weston-road, Bath.

A *Cineraria*, *Margaret d'Anjou*, by Mr. E. G. Henderson, Welling-ton-road, St. John's Wood.

The following kinds were commended by the censors:—

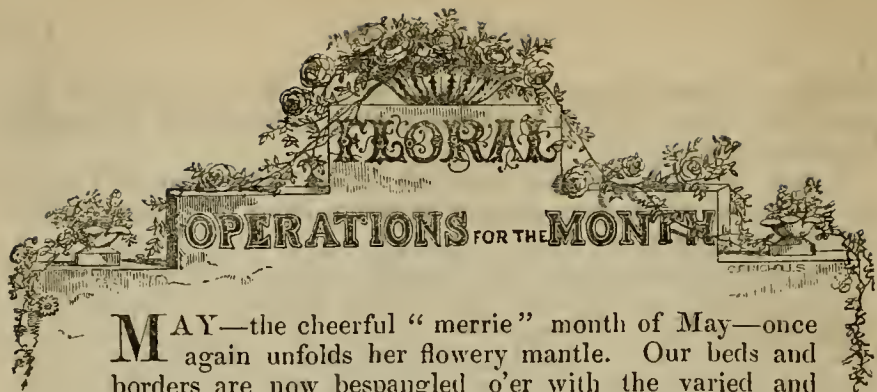
A *Cineraria*, *Model of Perfection*, by Mr. Ayres, of Blackheath.

A *Pelargonium*, *First of May*, by Mr. Turner, of Slough.

A *Cineraria*, *Beauty*, by Mr. Ivery, of Peckham.

The next meeting will be held on May 8th.

PANSIES.—The usual mode of showing these blossoms has lately been much objected to. The process of pressing a flower flat to the surface of the stand has misled parties, who formed a favourable opinion of certain flowers by what they saw of the specimens so shown; and when the flowers were seen growing, instead of the even-face quality, they were wavy and crumpled. Now it would be much preferable to exhibit the plants in certain fixed-sized pots, and each plant to have three or four blossoms. This method would place all exhibitors upon an equality, and the flowers be seen in their real character. There would be but little trouble to convey a dozen pots to a meeting; and I am certain that there are not more than twelve varieties which approach any thing near to perfection in form that have hitherto been brought to the exhibitions in and around London.—*Pensée*.



MAY—the cheerful “merrie” month of May—once again unfolds her flowery mantle. Our beds and borders are now bespangled o’er with the varied and beautiful tints of opening flowers. The pits and greenhouses offer the garden their winter-stored subjects, already bursting into active growth, and eager to breathe the free and open air. Some caution and care must, however, still be exercised; the return of occasional sharp frost may come, it will be advisable to be prepared with some protecting material to shelter, in case of need, such plants as are most susceptible of injury. If not already decided upon, determine at once all your plans; pay particular attention to the arrangement of colours. A flower-garden may be richly furnished with plants, but be very ineffective if the colours are badly arranged. For producing brilliant effect in masses, reject parti-coloured flowers; such are never effective. Use pure and decided colours, such as brilliant scarlet, pure white, deep purple, bright yellow, &c.; those which are in close affinity kill each other. Take care not to mix plants which are of doubtful duration when in bloom with those of a more permanent character, remembering always that the beauty of a formal flower-garden depends upon its being in all its details a perfect work of art, in which no blemish should occur. There must be high keeping, symmetry, judicious arrangement of colours (traceable to fixed principles), or it will not form a satisfactory whole. Young gardeners should attend to this. Many persons plant their stock so thinly, that their beds are not covered till late in the season; we advise *thick planting* for speedy effect.

Where annuals are required for late flowering, they may yet be sown; and hardy annuals that have come up too numerous should be thinned out, so as to retain but enough to be vigorous. Tender annuals, raised in pots or frames, should be taken, with as much soil to the roots as possible, and after the middle of the month be carefully planted out. After all planting is done, the next operations will be training and pegging down the plants; this is a tedious but most important process towards having well-furnished beds. Climbing plants will now require training from time to time, according to their growth.

FLORISTS’ FLOWERS.—Amongst these we may class the *Antirrhinum*; many of the kinds now in cultivation are exceedingly pretty, and deserve to be grown. Now is the best period to plant them out. *Auriculas.*—The blooming season of these favourites is now nearly over, and their growth commencing; they should therefore be immediately repotted, so that they may receive the benefit of additional

stimulant, and thus more vigorous and much stronger plants will be obtained than if the potting is deferred until autumn. *Carnations* and *Picotees* are by this time in their blooming pots; and as they advance in growth, attention will be necessary to stick and tie them up neatly. Stir up the surface soil of the pots, and add a dressing of mixed loam and well-decayed dung. *Cinerarias*.—As these go out of bloom cut down the stems, which will induce an abundance of shoots for increase, and turn them out into the open ground where they are partially shaded. *Dahlias*.—The third week in the month is as early as it is safe to commence planting out. The young plants will be greatly strengthened by repotting them into larger pots, giving all the favourable air possible, in order to have them hardy when turned out. *Fuchsias*.—Repot and trim all the plants required for specimens; encourage their growth by frequently syringing them over-head, and take care immediately to stop such shoots as are of too redundant growth, so as to preserve the plant uniform. *Pansies*.—Cuttings put in last month, as directed, may now be planted in a shady bed, for summer blooming. Copious watering in dry weather will be necessary. Such as are grown in pots, for show, require particular attention, and by thinning out the side shoots much finer blooms may be had. In the seed-bed any promising varieties should have a little dung placed around them, and watered occasionally, to promote their growth. *Pelargoniums*.—Such as have not been stopped back will now be coming into bloom. Keep them free from the green fly by fumigating, washing them afterwards. *Pinks*.—As the blooming stems advance they will require thinning out. Such as are not generally inclined to burst their pods may have all the stems but one removed. The more robust and very double kinds should have two or three stems left, according to the strength of the plant. *Ranunculuses*.—If dry weather sets in water must be liberally supplied; apply it between the roots and not over the foliage, and use rain-water if possible, preferring evening for the operation. *Tulips*.—The top cloth should at once be got on, to protect from storms of heavy rain and hail, and never let the sun reach the flowers after they show colour, but give all the air possible.

IN THE FORCING FRAME.

Continue to strike cuttings of stove and greenhouse plants, and pot off such as are struck. Plants intended to be flowering specimens for the greenhouse, such as *Achimenes*, *Gloxinias*, *Gesnerias*, &c., should be grown here and brought forward as rapidly as practicable. What are termed greenhouse annuals, as *Balsams*, *Cockscombs*, *Salpiglossis*, *Rhodanthe*, &c., *Thunbergias*, &c., should be got on quickly. A strong stimulating soil, copious waterings, and ample pot room, together with bottom heat, are inseparable necessities to their successful cultivation.

IN THE GREENHOUSE, &c.

A free ventilation is of importance, and by closing with a humid atmosphere early in the evening a vigorous growth will be best promoted. Give liberal shifts to such plants as now require it before the

roots become matted; much injury is often done by deferring until a general shifting. Camellias, such as have formed their flower-buds, should be placed in a sheltered and shady situation out of doors. Ericas should have the ends of their shoots pinched off, to render them bushy and spreading. Climbing plants should be neatly tied as they advance in growth, and abundance of flowers will be the result. Shrubby plants of weak growth, and which naturally make *long frail shoots*, are much improved by bending down the branches, and fixing them to a wire attached to the rim of the pot; in this manner the nakedness of the plant at its base is hidden, and the check imposed on the ascent of sap will induce an increased supply of shoots.

Pelargoniums.—Never allow the plants to flag, or the bottom leaves will turn yellow, and the plants then become naked. Put cow, horse, and sheep dung in equal parts, with a sprinkling of quick lime into a tub, and to one peck of these add five gallons of rain or other soft water. When taking it for use draw it off clear, and give the plants a watering twice a-week. Give air freely, shut up early, and syringe the plants overhead three times a week till the flowers expand. Now strike cuttings of the scarlet class of *Pelargoniums*, as *Compactum*, *Gem*, *Queen*, *Royal Dwarf*, &c., and when rooted pot off, which by the autumn will fill their pots with roots, and being what is termed *pot-bound*, they will bloom during the winter season.

Calceolarias.—Keep the lower side shoots pegged down; it will induce roots to push up the stems. Fumigate occasionally to keep down the green fly.

Azaleas.—When done blooming the growth must be promoted, see Articles upon culture.

WATERING.—At this season increasing attention is requisite; care must be taken that the *entire ball* of soil is made moist, particularly with the plants grown in sandy peat or sandy loam; a few holes made by means of an iron pin down through the ball will admit water into its interior.

WEIGELIA ROSEA.

BY A. Z.

LAST spring I had a fine specimen of this new shrub growing in a small bed on my lawn; and in consequence of its becoming too large, I had the branches shortened one-half their length: the result was the production of a profusion of new shoots. I thinned away a portion, leaving a due supply to furnish the plant; and the effect of this cutting in, &c., was, the plant bloomed in a much superior manner to what it had ever done previously. This spring I pruned in what other plants I had; and now they are pushing admirably vigorous, and I doubt not will bloom superior to what they have hitherto done. Cut them in, as is done to the Rose, every spring, and improvement will ensue.





Cansua dependens.



FLORICULTURAL CABINET

JUNE, 1851.

ILLUSTRATIONS.

CANTUA DEPENDENS.

THIS most beautiful flowering hardy greenhouse shrub is a native of the Peruvian mountains, plants of which we received from Mr. Van Houtte. It forms a neat branching shrub, growing very freely in a compost of equal parts of sandy-peat, leaf-mould, and good loam. It appears to grow so readily that it is likely to flourish well during summer in the open border, similar to the Fuchsia. Messrs. Veitch have had it stand out of doors for two winters, with a slight protection. They exhibited a beautiful flowering specimen at the Horticultural Society's exhibition on the 3rd of May. We need not say much to recommend to our readers this very elegant flowering plant; it ought to be in every greenhouse and flower-garden. The Indians adorn their chambers on feast-days with these pre-eminently beautiful blossoms, and give the plant the name of **MAGIC TREE**.

NOTES ON NEW OR RARE PLANTS.

ACACIA DIFFUSA.—This species is somewhat of a trailing habit, but with attention easily forms a bush. The leaves are about an inch long, very narrow; the flowers are in large balls, of a bright yellow colour, and it blooms profusely **IN WINTER**.

ACACIA OXYCEDRUS.—The leaves are narrow, about an inch long; the flowers are borne in spikes, of a rich yellow colour, and bloom in winter.

ACACIA RICEANA.—A plant of this handsome species is now in the large conservatory of the Horticultural Society, and is eight yards high, but we have seen small bushes of it, about three to four feet high, in profuse bloom. The leaves are narrow, about an inch long; the flowers are round, of a pretty pale yellow.

APONOGETE DISTACHYON.—This is a handsome, sweet-scented water plant, a native of the Cape of Good Hope. It flourishes in our own country as a hardy plant. Some blooming specimens have been forwarded by the Rev. Charles Osmond, of Loddiswell, near Kingsbridge, in Devonshire. In a pond at that place the plants thrive most luxuriantly, producing thousands of most deliciously fragrant flowers throughout the summer, and even in January there were three hundred fine blossoms. The appearance of the plant is much like the PONDWEED (*Potamogeton natans*). Mr. Osmond states, “About three years since a root was given me the size of a shot, which I planted in a small pan, and sunk it in the pond; it grew rapidly, and in a few months produced flowers, and, unobserved by me, seed also, from which have sprung up to the surface of the water hundreds of plants. The spring which supplies the pond is peculiarly clear, always running, and in the severest winter rarely freezes.

AZALEA VITTATA. THE RIBBON-FLOWERED.—White, with Carnation-like stripes. A plant was exhibited at the Horticultural Society’s Show by Messrs. Standish and Noble.

BERBERIS DARWINNI.—A very handsome evergreen, hardy, shrubby Barberry, with thick leathery (somewhat holly-like) small leaves. The flowers are borne in profusion in long spikes; the racemes are drooping, each having eight to ten blossoms, of a bright orange colour, and a single flower is the size of a small pea. The bush grows three to four feet high, and when in bloom is literally covered with flowers, and highly ornamental. Mr. Lobb found it in South America, and sent it to Messrs. Veitch, of Exeter. It deserves to be in every shrubbery. (Figured in *Gardeners’ Mag. of Bot.*)

BERBERIS PALLIDA.—This very pretty evergreen species is too tender to succeed in the open air in our own country, except in the warmer parts of Devonshire, &c.; it, however, does well in the greenhouse, potted in a compost of equal parts of sandy-loam and leaf-mould, to which is added a portion of bone-dust. The leaves are somewhat holly-like, and the flowers of a pale yellow colour, which are succeeded by large panicles of deep purple berries. A fine species for the greenhouse, or probably would succeed trained against a south-aspected wall, with a slight protection in the severest winter weather.

DAPHNE PURPUREA.—This pretty hardy shrub was recommended to us, the leaves being of a dark purple, excepting the young ones at the ends of the shoots. We obtained it from Belgium, and recommend it to our readers. The old *Mezereum* blossoms before the leaves appear, but this kind blooms after the leaves are expanded.

DOMBEYA MOLLIS (Syn. *Astrapæa mollis*).—In the palm stove at the Royal Gardens of Kew, it has reached the height of a tree thirty feet high, with a branching head. The small flowers are produced in terminal umbels of a pretty rose colour, having the scent of the Hawthorn. (Figured in *Bot. Mag.*, 4578.)

ESCALLONIA MACRANTHA.—This beautiful robust evergreen shrub deserves a place in every warm shrub border. Its fine foliage (large as *Arbutus* leaves), and large rosy-pink flowers, render it a valuable acquisition.

HELIOTROPIUM IMMORTALITE DE LOUISE MARIE.—This very peculiar variety was raised from seed by M. Marchot, of Leige, named as above that wherever it was cultivated it might recal the great loss which Belgium has lately sustained in the death of her queen. It blooms more profusely than any other *Heliotropium*. The leaves are small, roundish, and the plant somewhat of a drooping habit, similar to those which the Romans placed on the graves of their dead. The cymous heads of flowers are large, and each blossom green at the centre, *emblematical of hope*, surrounded by a crown of gold, *emblem of holiness*; and the five rays of the border present the virginal whiteness of the celestial stars, with this peculiarity, that here the flowers, it is stated, have the peculiar fragrance of the Violet and Wallflower during the period of their progressive changes.

HELLEBORUS ATRO-RUBENS.—A very handsome purple-flowered hardy herbaceous plant, blooming in February and March. The flowers are about the size of our Christmas Rose Hellebore. The dark purple gradually changes to green. It inhabits woods and bushy places in the mountains of Austria. It is now in the Royal Gardens of Kew. (Figured in *Bot. Mag.*, 4581.)

HOLBOLLIA ACUMINATA.—A stout climbing evergreen shrubby plant, growing in the mountain woods of Nepaul, so strong that the trunk becomes four or five inches in diameter. The leaves are about the size and shape of those of the *Mandevilla suaveolens*. The flowers are produced in racemous clusters of six to eight in each, from the axils of the leaves. A single flower is bell-shaped, about half an inch long and as much across, of a purplish colour, with green tips. They have the perfume of the Orange-tree flower. It has hitherto been treated in this country as a greenhouse plant, and highly merits a place there, but it is very probably quite hardy. (Figured in *Paxton's Flower Garden*.)

MONARDA AMPLEXICAULIS.—A hardy herbaceous plant, growing two feet high. It blooms freely, the flowers being produced in terminal heads, and are white tinged with rose, each flower having four rows of purple spots on the lip. It is a very pretty plant, recently introduced into our nurseries from Belgium.

MORMODES ATRO-PURPUREA. BLACK-PURPLE FLOWERED.—A stove orchid, from Panama, and has bloomed in the collection of these plants belonging to J. D. Llewelyn, Esq., at Penllergare, in Wales. The flower-scape grows a foot high, and the flowers are pendulous, each being two inches across, of a dark chocolate blood colour. A very singular, pretty species. (Figured in *Bot. Mag.*, 4577.)

PERSEA GRATISSIMA. ALLIGATOR PEAR.—It is a moderate-sized tree, extensively cultivated in the West Indies, especially in Jamaica. Plants are in our own country, but we have not heard of its having

ever bloomed here, except at the Royal Gardens of Kew and Syon Gardens, but it has never fruited, we believe, in Great Britain. The flowers are green, each about half an inch across. The fruit is pear-shaped, yellow and brown, often tinged with deep purple; each fruit about four inches long. Its taste somewhat resembles butter or marrow, hence it is there called "Vegetable-marrow." It is so rich and mild that most people make use of some spice or pungent substance, to give it poignancy; and wine, sugar, lime-juice, but mostly pepper and salt, are used. If the stone of the seed be taken, and with it write upon a white wall, the letters will turn as red as blood, and never go out till the wall is whitewashed again, and even then with difficulty can it be effaced by that process. (Figured in *Bot. Mag.*, 4580.)

POLYGONUM VACCINIFOLIUM. CRANBERRY-LEAVED.—A rock-plant, from the Northern India mountains. It is quite hardy in our own country. The Horticultural Society introduced it here, and in the garden at Chiswick. It blooms during the latter part of summer and autumn. The stem is *shrubby*, and each branch terminates with a spike, three inches long, of rose-coloured flowers. It is a prostrate-growing plant; the spikes only rise about four to six inches high. It is a pretty rock plant. (Figured in *Gardeners' Mag. of Bot.*)

RHODODENDRON CINNAMOMEUM CUNNINGHAMII.—This splendid variety was raised by Mr. Cunningham, nurseryman, of Liverpool. It is a cross between a white-flowered variety of *R. maximum* and *R. cinnamomeum*. It is quite hardy. The heads of flowers are large, and each individual blossom is two inches across, white, beautifully spotted on the upper segments with purple. It is a charming addition to this noble family of shrubs, and ought to be in every collection. (Figured in *Gardeners' Mag. of Bot.*)

RONDELETIA VERSICOLOR.—Mr. Seeman sent this handsome flowering plant from Central America to the Royal Gardens of Kew. It is a stove plant, bearing numerous cymes of its dense flowers, which are remarkable for the play of colours. The tube is yellow; the limb (end of flower), in bud, deep rose, changing, when they expand, to a pale rose, and then to white, with a yellow centre, and having a two-lobed green spot in the middle, from the green stigmas, which protrude beyond the mouth. It is a moderate-sized shrub, blooming very freely, each panicle of blossoms being from three to four inches across. The plants commence blooming when about a foot high, and by stopping the leads a handsome formed bush is easily obtained. It deserves a place in every stove collection. (Figured in *Bot. Mag.*, 4579.)

TROPEOLUM PENDULUM.—A half-hardy annual, and a climbing plant, which has been introduced from Central America. Calyx of the flower yellow, with green tips; corolla yellow, with the two upper segments marked with red lines, and a violet-coloured bar near the edge. This very pretty flowered plant has been introduced to Berlin by Mr. Matthieu, nurseryman.

A COMPOUND FOR PROMOTING THE GROWTH AND BLOOMING OF FLOWERING PLANTS.

BY MR. H. STILWELL.

THE compound consists of sulphate of ammonia, four ounces, and powder of nitre, two ounces; mix these together in an earthen vessel, and add a pint of boiling soft-water. Cover it close down until it becomes cold, then put it into a glass or other bottle, and cork it down air-tight; the next day the compound will be fit for use. It must be used with care, and ought to be only in the hands of experienced gardeners. I have used this liquid with great success with both flowering plants, particularly the soft-wooded kinds, and vines in pots. I doubt not but its application will prove satisfactory, and be found a valuable acquisition to the early EXHIBITORS of plants at our first shows of the year.

To plants in pots add five drops to every quart of water, and apply it as follows: say the beginning to be on the first day of the month, then the third, then the fifth, being every alternate day. By this apparent small application the rapid growth of plants will be much promoted. It is, too, a considerable assistant in contributing to the earlier blooming of bulbous plants, whether grown in pots or glasses. To all the kinds of plants which I have applied it, I have found it to promote a fine healthy foliage, and a more quick bloom.

I used the above mixture to a vine growing in a pot this spring, and the advantage was very strikingly apparent after only six days using. Other vines were well fed with manure-water at the same time, but a very marked difference existed in favour of the former.

THE PROGRESS OF THE PELARGONIUM DURING THE LAST FEW YEARS.

BY ORION.

WERE a collection of Pelargoniums, say the best which were in cultivation in the year 1837, staged at one of our principal exhibitions side by side with one of those superb displays contributed by either Cock, Gaines, Beck, or Parker, of the present day, the contrast between them would better confute, rather than all the arguments which can be brought forward, the opinions of the not quite all-powerful "botanical statesmen" who have so long been striving to check the onward course of improvement in what are now understood as florists' flowers. FLORISTS' FLOWERS! what are they? The question will soon be difficult to decide, for now we see that florists do not disdain giving their attention to some of the more simple ornaments of the flower-garden, such as the Crocus, Gladiolus, Phlox, Ixia, &c. May we not reasonably infer that all flowers seeding freely in this country, and possessing a variety, may at some time or other be increased and improved in the same astonishing manner as we have seen has already been accomplished within the last few years by the assiduous care and

attention of the deserving hybridizers, particularly in the case of the Pelargonium, Cineraria, Fuchsia, Verbena, and many other examples. The object of this paper is not, however, to give a treatise on the hybridizing of flowers, but to view the gradual ascent, as it were, from insignificance to splendour, of the justly popular flower the PELARGONIUM, or as it is still vulgarly called, but erroneously, the GERANIUM. We think that already having such gems or prizes, as the editor of the *Florist* terms them, as Ajax, Magnificent, Incomparable, &c., we may stand for a while "resting on the fruit of our labours," not thinking for a moment that perfection is yet attained, but glancing back to review the triumphant success already achieved by the patient exertions of twenty seasons, although accomplished step by step and year by year, we may gain fresh courage to be enabled to persevere in our onward course to reach the summit of perfection; and those of us who are able to remember the time when Smut, Bancho, Habranthum, and other (*now deemed*) unsightly varieties were figured in the pages of this journal (see page 121 in the volume for 1835) will think of what has been done since then, and still go on striving, till perhaps the next ten years may see as much improvement as the last.

As the varied use of the terms Pelargonium and Geranium unfortunately still continues to puzzle the amateur florist who is not acquainted with botany, perhaps the following explanation will be of service. Up to the year 1790 what are now denominated GERANIUM—CRANE'S-BILL, from *geranus*, a crane, in allusion to the crane-like beak which terminates the carpel of seeds, PELARGONIUM—STORK'S-BILL, and ERODIUM—HERON'S-BILL, from similar allusion, were comprised in but one genus, viz., GERANIUM; such then was the original FAMILY name. To the species of this family natives of our own country there had been, up to 1790, a considerable number introduced from other countries, and the botanists of that day deemed it essential to divide the genus, and there being peculiar distinctive properties by which certain divisions could be properly effected, that was determined upon.

The PELARGONIUM, or STORK'S-BILL, is grouped in the *natural arrangement* under the order *Geraniaeæ*, and by Linnæus (see Loudon) it ranks among the class *Monadelphia heptandria*, which implies that the flowers have *seven stamens* and one pistil united into one body. The GERANIUM, or CRANE'S-BILL, has ten stamens, and Loudon forms them into *Monadelphia decandria*. Loudon's catalogue enumerates no less than 190 species of Pelargoniums, all but 30 of which were introduced from the Cape of Good Hope; his catalogue also contains the names of about 180 hybrid or garden varieties. The Geranium only numbers 48 species, 15 of which are natives of Great Britain, and the majority of them rank as little more than weeds, few being ever cultivated, so that it is rather strange that the present small minority should give the name (quite erroneously) to a *large* and much more important *majority*, the excuse for which use now can only be "that sixty years ago the undivided family of very dissimilar species were known but under the name of *Geraniums*;" but it is the way generally, once spread an error abroad, it is a very difficult matter to fully eradicate it.

Loudon's list of garden varieties numbered only 180, but were a complete descriptive list now to be made of those which have been and now are not, and those in present cultivation, the labour required would almost rival that bestowed on the Great Exhibition Catalogue. It has been computed that somewhere between two and three thousand varieties have already appeared and passed away. But to those who are desirous of more fully investigating the botanical history of this class, SWEET'S GERANIACEÆ is a work well adapted, and to it I would refer them.

But to the subject—"the progress which has been made during the last few years in the *Pelargonium*." The remarks about to be given are guided by the observations of one who has lived amongst these flowers for eleven years, and a book of *jotting* will be referred to occasionally, which the writer has kept during that time, assisted also by a collection of upwards of three hundred varieties of dried flowers, carefully preserved in a book, with the year of sending out, the price, and the raiser's name attached to each; but having, perhaps, already exceeded the amount of space which can be allotted to one article in one number, further remarks are reserved for another month.

CULTURE OF FRANCISCEA EXIMIA.

BY M. DE JONGHE, OF BRUSSELS.

THE great difficulty with which every one who attempts to cultivate a tropical plant in an European hothouse has to contend is ignorance of the habits of the plant, of its period of growth, of its period of rest. In consequence of this ignorance, which can only be dispelled by careful observation during two or three years after the plant's arrival, and in consequence of the eagerness of people to attain perfection all at once, and of their tendency to condemn everything that falls short, though for a brief time, of their expectations, many a new plant has been neglected and set aside, which, had a little more time been spent in endeavouring to bring it to perfection, would have proved well worthy of continued favour and increased popularity. It is then, in my opinion, the duty of every one who introduces new plants to make known everything concerning them which may enable the gardener to bring them as soon as possible into the highest degree of beauty, that they may not be prejudged, and thrown away as unworthy of notice. This I shall now proceed to do for the *Franciscea eximia*, which is certainly one of the most beautiful of newly-introduced plants, and of any hitherto brought from Brazil, and cultivated in European houses. The botanical description of this plant, which would be out of place in the columns of the *Gardeners' Chronicle*, is to be found in several of the journals more exclusively devoted to botany.

The *Franciscea eximia* was found by M. Libon in a virgin forest not far from Villa Franca, in the province of St. Paul, in Brazil. It grows naturally in shady places, in small open spaces in the forest, where it forms a bush two or three feet high. The flowers are nume-

rous, richly coloured, and appear as well at the top of the stems as at the extremities of the lateral branches.

Three strong plants of this *Franciscea*, deprived of their roots and carefully packed, were carried by mules 180 leagues before they reached Sanctos, whence they were sent to Rio Janeiro, and from that town to Europe, where they arrived, alive, in November 1847. Immediately after they were unpacked, one of them was placed in leaf-mould, unmixed with other substances; another was placed in a mixture of equal parts of some yellow earth from Brazil, and leaf-mould, with a little charcoal; the third was planted in a still more substantial soil. The last gave no signs of life; the second sent forth with difficulty a few weak shoots; the first, at the end of a month from the time it was planted, showed signs of vigour, and at the end of three months it had sent out some fine roots, which lined the pot confining them. Guided by my success with this plant, I replanted the other two in pure leaf-mould, but they had suffered so much that it was with difficulty they were brought round. The first, properly treated at the outset, has maintained its superiority over the other two.

The flowering period of *Franciscea eximia* is the same in our hothouses as in Brazil, viz., from January to June. In winter, the plants, both great and small, but more especially the latter, should be kept in a temperature of from 10° to 12° Réaumur (54° to 59° F.) The period of its normal growth begins in December. The flowers are formed upon the young wood; the earliest appear on the stem and the principal branches, then on the lateral ones, where a succession is kept up for some months. The small plants, which are not more than eight or ten inches in height, have already two or three flowers at the tops of their stems. Perfection is not to be looked for until the plants are two or three years old. The original plant obtained at the exhibition of the Société de Flore, at Brussels, a medal, as the most beautiful new plant there. This same plant, which I have never used for propagation, bore in 1850 more than three hundred flowers, from January to June. The flowers, which in form resemble the great Periwinkle, are richly coloured with violet, blue, and white, and contrasting as they do with the glaucous foliage behind them, produce a most beautiful effect.

The plants, if they have rooted well, may in the month of March be placed in a temperate house, in a shady and airy situation; they may be put very well in the midst of Camellias, and left there all the summer; their shoots will not become blanched, their growth remains vigorous and short-jointed, their flower-buds are well-formed, and the flowers are abundant and last a long time. Towards the end of July, when the young wood is well ripened, the plants may be repotted. This is the best time to repot them, for if they are repotted later, they will not flower so early.

In October, the plant should be again placed in the coolest part of a hothouse, where it should spend the winter. If these directions be attended to, the *Franciscea eximia* will be found to be easy of cultivation, and to form a valuable addition to ornamental hothouse plants.

— *Gardeners' Chronicle.*

BRIEF REMARKS.

CAPSICUM FUMIGATING.—I find, in perusing the *Cottage Gardener*, that Mr. Beaton, one of the writers, has with admirable success tried the Capsicum, or Cayenne-pepper, as a substitute for tobacco, in destroying the green-fly. He recommends every one this season to cultivate a quantity for the express purpose. If this can really be brought into general practice, doubtless many will duly appreciate so valuable a discovery. Tobacco is not only expensive, but highly objectionable, especially where plant structures are attached to the mansion, as the fumes of tobacco may be detected in every room when it is necessary to use it for destroying insect life. We all know, however, that it is a safe and sure remedy, and it will not do to repudiate the one until we are practically acquainted with the other. I have no desire to appear sceptical, but at present I look upon the discovery as being only in its infancy and trial. It is an experiment, however, which I intend to subject to a fair test, and judge for myself, the result of which, if acceptable, I will make known through the medium of the CABINET.—*G. Fry*. [We shall be obliged by the favour as early as convenient.]

CYCAS REVOLUTA.—This very singular apetalous plant is now blooming at J. Penn's, Esq., of Lewisham, in Kent. It is in the best possible condition, and, like many of our stove inmates, is a curious and interesting plant.—*G. Fry*.

TEA ROSES.—The Tea Rose, on account of its beautiful tints and peculiar fragrance, is a general favourite; yet with amateur cultivators, who, like myself, reside within a few miles of the metropolis, and who are compelled necessarily to grow it under glass in pots, it turns out a complete failure after a season or two. We may be successful with most kinds of plants, but this one proves always more than our match. With great care, I get at first certainly very satisfactory specimens, but I find it impossible to keep the plants in the same state, and the blooms speedily deteriorate. However, before giving up this vexatious and disappointing culture, I have made a new attempt, which has been quite successful, and it is to make this plan known that I trouble you with these lines:—I planted about fifty half-standards and dwarfs in the autumn, consisting of *Souvenir d'un Ami*, *Elise Sauvage*, *Adam*, *Devoniensis*, &c., in a well-prepared compost, and I erected a low span-roofed house over them, having glass sides to the ground, and side windows for ventilation, and I find it to answer admirably; the plants are looking remarkably healthy, and promise well; the shoots are most vigorous, and are covered with buds.—*W. G., Stoke Newington. (Gardeners' Chronicle.)*

TREATMENT OF VENUS FLY-TRAP.—Clericus solicited, in a recent number, some particulars of a successful management of this singular plant, and some observations having appeared in the *Gardeners' Magazine of Botany* upon its treatment, we have extracted the following, as given by a cultivator, Mr. Brown, now in the Tooting Nursery:—

“For soil, use equal parts of fibrous peat and of sphagnum cut very short, mixed with a little sand. The pots should be well drained; five-

inch pots are in most cases sufficiently large. After the pots are drained, and filled with the soil, make a hole in the centre, in which place the plant, and carefully press the soil close round about it; then on the top, and all round the plant, should be placed a little green moss, cut fine; the surface should be clipped level and neat with a pair of scissors, and care must be taken not to bury the heart of the plant. Give them a good watering with a fine-rose watering-pot, to settle the soil. The best time for potting is about the month of March. I would recommend to shake them out of the old soil every season, and pot them in fresh soil.

“The plants thus potted should be placed in shallow pans of water, at the end of a stove or an orchid-house, on a shelf, about eighteen inches from the glass. At the end where they are placed, shading will not be required, but the glass may be painted with a little thin paint just over them, or, which is still better, with some paste in which a little whiting, dissolved in hot water, has been mixed; this must be used with a brush, on some dry day, to allow it to get thoroughly dry, or the rain would wash it off. In winter, a little hot water with a brush will soon wash it off again, and at that season the light will prove beneficial to the plants.

“Watering must be carefully attended to. After the plants are potted, and placed on the shelf, in March, syringe or water them with a fine-rose water-pot once a-day. As the plants increase in growth, and the summer advances, water must be applied oftener. By the latter part of May, and in June and July, when the sun is very powerful and hot, they should be watered ten or twelve times a-day; but when the weather is cloudy, three or four times a-day will be sufficient. The stronger the sun the oftener they will require watering. As autumn advances, decrease the water by degrees, and when the plants are at rest in the winter, water applied once or twice a-week will be quite sufficient.

“The plants must be kept clean, and the moss clipped often, so as not to allow it to cover the heart of the plants, as that would choke them, and soon produce death. This treatment will secure short and strong leaves, with the lobes large, lying close on the moss, and of a beautiful healthy colour, instead of being drawn long and slender, and having a sickly colour, as is too often the case. The flower-stalks should be pinched off whenever they appear, to encourage the growth of the plant, the flowers being very insignificant, the beauty and singularity consisting in the trap form of the sensitive lobes of the leaves.”

THE RHODODENDRONS OF SIKKIM HIMALAYA.—The second descriptive series of these highly interesting plants, recently published by Reeve and Co., introduces to us several remarkable and mostly very beautiful forms of this genus, of which Dr. Hooker, during his just terminated journeyings, has found no less than forty-three species inhabiting this elevated tract of Northern India. This second series contains figures of ten species, and is to be shortly followed by another. The plates are beautiful, and no doubt faithful representations:—*R. Aucklandii*, a bush with large leaves and very large white veiny flowers, remarkable for the comparative shortness of their tube; *R.*

Thomsoni, a splendid crimson-flowered bush, with short, broad, blunt leaves; R. pendulum, a small pendulous epiphyte, with small white flowers; R. pumilum, a charming little Alpine form, the least of the Sikkim Rhododendrons, with pretty pink bells elevated above the foliage; R. Hodgsonii, a tree with very large, broad, blunt leaves, and close heads of pinkish rose-coloured flowers; R. lanatum, a large shrub, with the leaves tawny beneath, and sulphur-coloured flowers; spotted with crimson; R. glaucum, a very pretty small shrub, with leaves glaucous beneath, and heads of moderate-sized rose-pink flowers; R. Maddeni, a shrub with pointed leaves, ferruginous beneath, and large long-tubed lily-like pure white flowers; R. triflorum, a small Azalea-like shrub, with moderate-sized greenish-yellow flowers; R. setosum, a much-branched shrub of a foot or so in length, with small leaves, and comparatively large rosy-red blossoms.

ON THE RUNNING OF THE CARNATION.—The experience and observation of some years incline me to reject the idea that composts can in any material degree either induce or prevent the propensity to sport observable in the Carnation, which we term running. I have, by way of experiment, grown them in soils of various enrichment, from pure sandy-loam to unalloyed decomposed animal manures, with about equal results in that respect.

Take a given number of plants propagated from the same original, pot them in the same pot, and some will probably be run. I cannot, therefore, understand why, if the compost were in fault, the effect should be partial. I have also observed that in some summers the complaint of an unusual number of run flowers will be pretty general in a particular district; and it is barely possible to suppose that the composts used by several growers were all precisely the same. It appears to me that we must look elsewhere for a solution of this mystery. I view it simply as a natural tendency to sport (observable in other flowers besides the one in question), and though that inclination most frequently is to return to the natural self-colour of the original type, yet instances are not wanting of its taking an opposite direction. Thus Ely's Lady Ely (R.F.) is a sport from Ely's Duke of Bedford (C.B.), as Fletcher's Duchess of Devonshire (R.F.) is also from Gregory's King Alfred; while Puxley's Prince Albert, classed as a P.P.B., is often a very high-coloured C.B., and has positively sported to an S.B. Moreover, it does not follow that because the one or two leading blooms which the plant is alone suffered by florists to bear happen to run, that the lower ones, if they had been permitted to remain, would have been in that condition. I have seen a leading bloom of Beauty of Woodhouse (P.F.) a purple self or clove, and the second flower on the same stem a pure white. I turned out last season into the border what I supposed, from the bloom in the pot, to be a run Ward's Sarah Payne, but late in autumn it produced a bloom low down on the stem, perfectly clean.

Flaked flowers are not to be condemned as run, if you can perceive the smallest stripe of pure white in them. I have observed that the progeny of such is usually finely marked the ensuing season. Do not, however, mistake white spots caused by thrips for the natural white of

the flower. Many sorts, supposed to be run, will return. This has happened with Martin's President (P.F.), Sharp's Defiance (S.B.), and many others. The chances of clean flowers are not equal, whether you propagate from run or clean flowers, by which I mean to intimate my opinion that as many plants will probably return to fineness from the one as from the other. As for compost, I should pronounce half dung to be excessive, as far as the ultimate soundness of the stock is concerned. By no means should the loam be deprived of any of its fibrous rooty matter; that I consider by far the better part.—*J. W. Newhall, Florist.*

CARNATIONS AND PICOTEEES.—I am an old grower and shower of these beautiful flowers. Take my advice in potting. For vigorous-growing kinds have pots a foot across the mouth; for weakly ones ten inches across. Have clean pots to start with. Use a year-old turfy loam, that has been chopped and turned a few times. To it add another equal part, consisting of *well-rotted dung* and *vegetable* or *tea mould*. Have a liberal drainage of bits of turf and charcoal, two to three inches deep.—*Senex.*

CINERARIA HAVING THE SCENT OF THE HELIOTROPE.—A lady, resident in Sussex, has a variety whose blossoms have this delicious fragrance. The flowers are white. It is a valuable acquisition to this charming tribe of flowers. Attempts to have a race of this class no doubt will be made, and with due care will be realized, and may be kept permanent.

A GOOD YELLOW FLOWER FOR A SMALL BED.—Lucy asks for the name of such. The best we know is *Escholtzia crocea compacta*. Sow seed immediately, and the plants will bloom from June to the end of the season. It is a compact grower, and blooms profusely; the flowers of a rich deep orange-yellow. The best way to treat the plant for this purpose is—sow seeds in August in small pots, and keep them in a cool frame or sheltered place through the severe part of winter; then turn them out into the bed the first week in March. In April sprinkle a portion of seed between the plants. These will be in their prime when the former are ceasing to bloom; by this means seven months' bloom may be had. The bed thus being stacked will remain so; only should any die in winter, sow a portion of seed to fill up such vacancy. It is a very showy and neat plant. There are other yellow-blooming annuals; but they only flower for a short time.—*A Flower Gardener.*

CULTURE OF BALSAMS.—When four inches high, pot off singly into small pots, and plunge them in a hot-bed frame. Do not allow the roots to become matted around the ball, but repot early enough; keep shifting till you have them in the large pots for final blooming, which ought to be a foot across the top. Never allow any blossom till the plant has attained the size you want it; and it ought to be bushy, nearly as wide across as high. Therefore clip off all the flower-buds at the earliest stage, which induces the vigorous and rapid growth of the plant. Use a mellow turfy loam, such as has been laid up and chopped for a year; to this add equal portions of leaf-mould and well-rotted hot-bed manure, a sprinkling of pieces of charcoal and charred bones,

with a liberal drainage of pieces of turf and bones, and a free supply of water, majestic robust specimens will be produced.—*A Nobleman's Flower Gardener.*

THUNBERGIA ALATA, AND ITS VARIETIES.—We now have a most beautiful race of these very charming flowering plants, the buff, yellow, orange, white, &c., with their very distinct dark eye; they merit a place, where practicable, for summer ornament, in-doors or out. A more charming tribe of climbing plants does not exist. A friend of mine has sent me the following particulars of growing the plants to an extraordinary size, and, of course, to obtain an equal improvement in the quantity and the size of the flowers:—

“*Culture—Soil.*—The finest specimens we ever observed were grown (after they had attained the height of six inches) in a mixture of loam and night-soil, which had been well incorporated for twelve months, and frequently turned over to mellow and sweeten. In this exceedingly rich strong compost the plants grew with a vigour and luxuriance that was perfectly astonishing. The leaves were nearly double the usual size, and the flowers were much larger and more highly coloured. It may, however, be not always convenient to obtain this rich stimulant.”—(Such a compost may not be provided; but they flourish most admirably in a compost of equal parts of good turfy loam, sandy peat, leaf-mould, and well-rotted manure, and supplied with a liberal drainage.—EDITOR.)

DOUBLE ROCKETS.—I suppose the reader now (April 2) to have nice healthy plants; then the first thing to do is to get some strong loam, one barrow-load to half a barrow-load of decayed cow's or sheep's dung, and two shovelful of river sand; mix the whole together well, and then you are ready to begin to plant. If you plant them in the border amongst the other hardy herbaceous plants they will thrive well; and if in a rather shady damp place all the better. Turn out for every plant say one foot square of the old soil, and fill up the hole with the prepared compost, and place your plant in the middle, rather deep; give a little water, and a little liquid manure water when they begin to grow vigorously. Thus generously treated, they will bear flower spikes of eight or nine inches in length. The way we grow them is in a round figure, or clump, prepared with the same compost. We plant the German, which is sometimes called the French White, which is shaded with a purplish tinge in the centre. This is a strong vigorous plant, indeed the strongest of all the kinds I have; and twelve inches from them another row of the same, which grows about two feet high; then twelve inches from that I plant round the Blue, of late introduction, which grows eighteen inches high; and twelve inches from that again we put the Old Queen, which grows from twelve to eighteen inches high. I should have said there must be twelve inches between plant and plant. They all come into flower within a few days of one another, and when in flower they are truly beautiful. Whenever the flowers begin to fade, I cut them down to within two inches of the ground, and make cuttings of the flower-stems so far as they are leaved; generally each stem makes two cuttings. After the old stools have remained a fortnight they begin to start fresh growth; and I then

lift them, and divide them into pieces, and plant them in a shady border with decayed leaf-mould and sand in equal parts.—*Cottage Gardener.*

PROPAGATION OF BOURBON, NOISETTE, AND CHINA ROSES, ALSO OF MANY OF THEIR HYBRIDS.—Make cuttings of the last year's shoots, about six inches long, cutting horizontally across close under a bud, or, which is better, exactly where the last year's shoot pushed from. A bed should be prepared on the north side of a wall, or similar shady place, throwing out the soil a foot deep, and filling in four inches deep with sifted coal-ashes; upon which place a layer of three inches of good loam and leaf-mould, and fill up the remainder with a good moist sand. This being made firm the cuttings must be inserted, and then a liberal watering to settle the sand around the cuttings. No other attention will be necessary, unless the weather be dry, when a sprinkling over the tops with water, by means of a syringe or fine water-spout, should be given early in the morning for the first fortnight. With such treatment I last year raised more than five hundred plants from the refuse of my Rose-prunings.—*An Amateur Grower.*

ACACIAS.—The genus *Acacia*, as now restricted, still contains about four hundred described species, which are extensively diffused within the tropics of the old and new world; they are also found in some extra-tropical countries, especially in Australia, which country alone contains more than one-half of the known species. This genus, in its normal or typical form, has conjugate and variously pinnated leaves, which character is common to all the species in their nascent or seedling state, and is permanent with about one-half in all stages of their existence; the other species soon lose their true leaves, their place being supplied by the petioles, which take various forms, assuming the appearance and performing the functions of leaves. In a few instances the true leaves may be seen borne on the apex of a broad leaf-like petiole; but the latter is readily known by its not having an upper and an under surface (as in true leaves), the two sides being vertical and uniform. With the exception of two or three species, the leafless group are all natives of Australia. They are found upon all the coasts, and equally diffused in the interior; and by their numbers they form a leading feature of the vegetation, some of the species, by their glaucous and hoary aspect, giving a peculiar character to the landscape, generally indicative of an arid country. As the seeds of *Acacias*, like those of most of the *Leguminosæ*, are not easily destroyed by long voyages; many of the species have from time to time been introduced into this country, more especially from the extra-tropical parts of Australia; as they are, also, of easy cultivation, and many of them of robust growth, and very showy when in flower, they have become favourites in the greenhouse, and for planting in large conservatories.

BEST SOIL FOR ROSES.—A STRONG loam, half a yard deep, having a DRY substrata, exactly suits the Rose. In any other the plants soon perish. They delight in a cool soil, but a stagnant wet bottom is fatal to them; therefore drain well in such places.

PEAT CHARCOAL.—This is valuable as an element of manure, for which some of its properties eminently fit it. It appears to possess the property of absorbing gases to a very considerable degree, a power to

which its peculiar open porous nature greatly contributes. The value of charcoal as a constituent of the soil depends almost wholly on its physical condition, for a dense (close) charcoal is of little or no use, and the more open and porous it is, the more serviceable to plants, acting as a constant magazine of gaseous food.

HEATING A FORCING-HOUSE.—I have just put up a small forcing-house, ten feet long by about seven feet wide, for the purpose of striking cuttings, forwarding Gloxinias, &c., and hastening plants into bloom in winter. I do not know how to treat it. I wish to have both top and bottom heat. Would a tank answer for the latter? And do you think I could place the flue from the fire-place below the tank, so as to supply atmospheric heat? Perhaps you would inform me of the probable cost of the above. If the above plan would not answer, perhaps you would have the kindness to insert in your next Number the best plan for treating it, and at the same time a cheap one.—(We advise you not to try the tank system. We have seen a great deal of it, and in winter the houses and plants have been saturated with the exhalation. We never saw an instance of its succeeding to satisfaction. Hazard's system of heating, where there is no smoke, &c., answers admirably. We will send you every particular. Nothing can be better than it is. An account of it is given in this Magazine: see volume for 1847.—EDITOR.)

CORONILLA GLAUCA.—This very free flowering plant can be had in bloom throughout the year. Its pretty yellow pea-formed flowers, produced in fine clusters, are at all times interesting, but it is during autumn, winter, and early spring that they are especially so, for which period the plant is an unrivalled bloomer, and merits a place in every greenhouse or sitting-room window. The blossoms too are fragrant. The plant is nearly hardy, so that in a common greenhouse it thrives freely. It is of easy culture. Cuttings strike root readily in spring, and the plants flourish in a compost of equal parts of turfy loam, turfy peat, and old pulverized cow-dung. The plant furnishes an abundance of fibrous roots, and therefore requires plenty of pot room, and when growing a very free supply of water. It amply repays for any attention given in its management. It is advisable to raise fresh stock every second year. I have tried it in the open ground, but it produces very few flowers when so grown.

ONE SHIFT SYSTEM OF POTTING PLANTS.—The principal object aimed at in this system is *rapidity* of growth, and to possess a fine specimen in a much less period of time than could be readily realized by frequent repotting. By this practice the labour of repotting is saved, nor do the plants require such frequent watering. To do this effectually you should have a plant that has not had its roots matted around the side of the pot; a young plant whose roots naturally extend every way is the sort to begin with. It is true a very small plant in a large pot looks unsightly, and such pots take up a large space, and should the greenhouse, stove, &c., be small it is very objectionable. However, where *quich* growth is concerned, the system has its advantages. In order, however, for the small plants to succeed well placed in a large pot, there must be a very liberal drainage to allow super-

fluous water to pass away. Compost must be in a rough state, only rubbed or chopped. Turfy loam, turfy peat, &c., are essentials to success, and pieces of charcoal intermixed are very beneficial. The surface of the soil must be half an inch below the rim of the pot, to hold water sufficient to moisten the *entire ball* at every watering.—*A Practitioner.*

GERMAN ASTERS, &c.—I saw the Aster last autumn exhibited for sale in the flower markets of Paris, in greater perfection than I have yet seen it grown in England. They were brought in pots of all colours, not with lateral or straggling branches upon them, but with straight stems, and surmounted with tufts of flowers, well up in the centre, many of them as large as dahlias; these pots were readily purchased by the Parisians, to ornament their shop windows, sitting rooms, halls, and saloons.

Another point in which the French appear to excel us, was the tasteful manner in which the market women exhibited their bouquets of cut flowers; these were made on the spot, and when composed of dahlias were mostly of a dome shape, the flowers appearing in different coloured circles, and so placed as to reflect each other's beauties; sometimes the circles were horizontal, sometimes vertical; but whether the nosegays were formed of dahlias, or of a mixture of smaller and more tender flowers, as the verbena, geranium, &c., the same attention to contrast of colour prevailed, and all were placed in a neat white paper envelope. "Thank you," said a lady to me, as I handed her one of these bouquets, on her alighting from the railway carriage at Tonbridge, "I brought that from Paris, to show my friends how much better they manage these things in France."—*S. P., Rushmere.*

FLORISTS, &c., OF ST. PETERSBURGH, THE CAPITAL OF RUSSIA.—In a climate so adverse to the general cultivation of flowers in the open air as is Russia, it is very pleasing to know that an almost universal love of flowers exists in that country, and recourse is had to almost a general cultivation of them in plant-houses, dwelling-rooms, &c. The following interesting account, in confirmation of the above statement, is given in Mason's Reports on St. Petersburg, which appears in a recent number of the *Gardeners' Chronicle*:—

"*Florists.*—Among the different florists of St. Petersburg, M. Alwarch, a German, stands first. He cultivates nothing but those plants which are universally sought after in Russia, viz., good evergreen shrubs and bushes. These plants, which are brought into Russia in pots, are sold in large quantities to the nobility, who, in winter and the commencement of the fine season, use them for the internal decoration of their houses. We may mention more especially *Gardenia florida*, *Ixora coccinea* and others, *Lantana*, *Musa*, *Æschynanthus*, *Asclepias curassavica* and *Hoya carnosa*, *Echium*, *Gesnera*, all of which are cheaper in St. Petersburg than in Paris. Such is not the case with the hundred-leaved, crested, four-seasons, and *Belladonna* Roses, which, when in flower, fetch 2s. 6d. and 5s. The Myrtle-leaved and Chinese Orange-trees are also very dear, as are also *Pelargoniums* and *Fuchsias*. *Francoiscea odorata* and *Hopeana* are great favourites; *Begonias* and *Gloxinias* cost half as much again as they do

in France. Camellias and North American Azaleas fetch most extravagant prices. The same gentleman has a large collection of *Rhododendron ponticum maximum*, and other species; but we look in vain for out-door Azaleas, *Calceolarias* from Chili, or Cacti from tropical America. As for Myrtles, Pomegranates, Laurels, Jasmines, climbing Roses, Dahlias, Pinks, and Spanish Jasmines, they are rare and costly.

“ Besides evergreen shrubs, M. Alwarch cultivates, though upon a smaller scale, out-door shrubs. We principally noticed some bushy plants, capable of resisting the severe frost of the country, such as *Cornus mascula*, *alba*, and *sanguinea*, Elders, *Spiræa lævigata*, *rosea*, and *alnifolia*, common Lilacs, *Chamæ cerasus*, Snowdrops, Snowberries, Service-trees, Sweet Chestnuts, Pteleas, Poplars, especially the true sweet-scented *suaveolens*; Caragana, with which beautiful undulating hedges are made; the charming red-fruited *Acer tataricum*; Buckthorns, and particularly the one from Tartary, which constitutes a large part of the live hedges in the country; lastly, *Cratægus purpurea*, with its handsome foliage, far surpassing in colour that of *C. alba*. The latter plant attracted my especial attention; its beauty, the rapidity of its growth, and other excellent qualities, enable the Russians to make live hedges, which we should very much like to see introduced into our own country.

“ *Flower Markets*.—One of the first things which strike a stranger entering St. Petersburg is the evident passion which all the inhabitants, rich and poor, old and young, have for flowers. The eye admires, with surprise and delight, the halls and rooms of all classes, which, for eight or nine months in the year, are more like conservatories than the interior of common dwelling-houses, being gay with plants of every clime. Whilst out of doors the country is desolated by the severity of the cold, in-doors we find Palms and Figs, Musas, *Dracænas*, *Marantas*, the large-leaved *Arums*, Camellias, *Rhododendrons*, and Azaleas; also some beautiful *Leguminosæ*, *Mimosas*, *Cytisus* in pots, Myrtles of all sorts, *Olea fragrans*, the large *Clethra*, different sorts of Laurel, and lastly, but most conspicuous, are the hundred-leaved and four-seasons Rose, Hyacinths, and other flowering plants.

“ The working classes, who cannot command a wide range of temperature, prefer such plants as *Crinum*, *Maranta*, *Hoya carnosa*, *Asclepias curassavica*, and *Lantana*; Oranges, Jasmines, *Plumbago capensis*, *Ixora*, *Gardenia*, *Echium*, and occasionally, too, the common Laurel, *Cytisus*, and *Olea fragrans*.

“ The poor, who are compelled to live continually in the town, grow *Pelargoniums*, *Roses*, *Verbenas*, *Fuchsias*, *Wallflowers*, and, in spring, *Lilies of the Valley*.

“ *Flower Trade in St. Petersburg*.—A fair, which is held as soon as the frosts are over, and which lasts a whole month, viz., from the 25th of May to the 25th of June, is almost exclusively a flower fair; it is at this fair that the nobility and country gentlemen make their purchases for decorating their country houses, to which they are about to retreat. The flowers are supplied almost entirely from Germany. We remarked the hundred-leaved and four-seasons Rose, planted in a

sort of hamper; Cherry, Apple, Plum, Service, and Sweet Chestnut trees, a few Pear-trees, all shrubs, and selling for double what they do in Paris; the Lilies of the Valley, especially, seemed to bear a most exorbitant price. We saw, too, Pæonies, and all sorts of perennial and shrub-like plants.

“Flowers are sold, too, by travellers, who go from house to house, carrying upon their heads boards, upon which the flowers in pots are closely packed. But these pedlars offer their purchasers neither variety nor beauty; a few Wallflowers, Pelargoniums, Fuchsias, Lilies, Echium, Gesneras, Roses, Mignonette, Cinerarias, Verbenas, Phlox, and Justicia, form the whole of their collection.

“Although there are many more florists in St. Petersburg than in Paris, the collections of the former are much more meagre than those of the latter. Their trade in bouquets and flowers in pots is prodigious, far surpassing what we had imagined.”

MR. GROOM'S TULIPS.—All lovers of this beautiful tribe of flowers who have the opportunity should visit this noble collection, now in its meridian splendour. His pet bed is fifty yards long, and consists of seven rows, comprising two thousand Tulips. We should be glad to give particulars of all the kinds here, but reserve them for a future number. The following were the most striking: *Roses*—Catafalque, Duchess of Sutherland, Camuse de Croix, Countess of Wilton, Catalina, King of Saxony, Fleur de Maria. *Byblomens*—Claude, Imperatrice florum, Michael Angelo, Louis the Sixteenth, Victoria Regina, which Mr. Groom states is the best Tulip he has raised. *Bizarres*—Prince Albert, Prince of Wales, Duke of Cambridge, Duke of Devonshire, Duke of Norfolk, Duke of Sutherland, Everard, Marshal Soult, Nourri Effendi, Lord Sandon, and Dr. Horner, which proves to be of first-rate excellence and a second-row flower. The price affixed to it is one hundred guineas; the prices of the others above named are from ten shillings to ten guineas.

EXHIBITION AT THE HORTICULTURAL SOCIETY'S GARDENS AT CHISWICK ON MAY 3RD.—The day was very unfavourable, the rain falling heavily a great part of the day; consequently the attendance was not equal to the first exhibition of former years. The specimens exhibited, however, were far beyond any former meeting in point of excellence. There was scarcely a specimen but what was superbly cultivated.

We have not space for all the particulars, and must only notice those most likely to be interesting to our readers, enumerating, for their guidance, what are the most showy and valuable plants for general cultivation. This plan we adopted last year, giving only *one insertion* of such generally exhibited plants in each volume, and then remarking upon *new plants* only which are shown at the subsequent meetings held at the three great Societies' exhibitions, held at Chiswick, Regent's Park, and the Surrey Zoological Gardens. The following were exhibited at Chiswick on May 3rd:—

In collections of twenty *Stove and Greenhouse Plants*, the large Gold Medal was awarded to Mr. May, gardener to Mrs. Lawrence, of Ealing Park. At the back of this group stood an enormous example

of the large-flowered *Epacris*; an *Azalea*, profusely clothed with double flowers of the richest red; a white-blossomed *Heath*; two varieties of *Eriostemon*, one forming a cylinder of little white stars at least seven feet high; two *Polygalas*, the white variety of *Erica vestita*, two *Chorozemas*, the beautiful *Boronias pinnata* and *serrulata*, the useful *Podolobium staurophyllum*; a *Pimelea spectabilis*, forming a ball of flowers five feet in diameter; the *Baxter Leschenault*, the *Java Ixora*, most beautifully blossomed; the *Cels Hovea*, *Gompholobium polymorphum*, a red *Azalea*, and *Pultenæa stipularis*.—Another collection of twenty was contributed by Mr. Cole, gardener to H. Colyer, Esq., of Dartford. It comprised a huge example of the imperial *Hoya*, in finer condition, perhaps, than it has ever before been seen in a pot; the *Box* and *Oleander-leaved Eriostemons*; *Dillwynia juniperina*, two *Polygalas*, the pretty *Cape Heath* called *Favoides elegans*, *Clerodendron splendens*, unusually well flowered; the *Cels Hovea*, in charming condition; an *Everlasting*, *Murray's Azalea*, the scarlet and saffron *Ixoras*, *Leschenaultia formosa*, *Franciscea acuminata*, loaded with blossoms, which shed a most delicious perfume; a double-red *Azalea*, *Podolobium staurophyllum*, *Mrs. Lawrence's* beautiful variety of *Chorozeina*, and a *Cape Heath*.—Groups of twenty plants were also contributed by Messrs. Frazer and Pamplin. The former had the *Broughton Azalea*, *Eriostemon myoporoides*, the *Berberry-leaved Podolobe*, *Pimelea linifolia*, a large variety of the *Baxter Leschenault*, the *Boronias serrulata* and *pinnata*, *Eriostemon cuspidatum*, three *Chorozemas*, *Polygala acuminata*, the blue *Leschenault*, an *Everlasting*, the *Oleander-leaved Eriostemon*, the lovely *Erica propendens*, the glowing *Azalea Minerva*, the showy *Adenandra*, and two *Cape Heaths*. Mr. Pamplin sent four *Cape Heaths*, three varieties of *Azalea*, the opposite-leaved *Polygala*, *Pimelea lanata* and *P. spectabilis*, the latter insufficiently in flower; *Euphorbia splendens*, the *Box-leaved Eriostemon*, *Dillwynia juniperina*, the *Cels Hovea*, a handsome bush of the useful *Genista racemosa*, and one or two other plants.

There were two collections of fifteen *Stove and Greenhouse Plants*. The first by Mr. Green, gardener to Sir E. Antrobus, Bart. The second by Mr. Taylor, gardener to J. Coster, Esq., of Streatham.

Seven collections of ten *Stove and Greenhouse Plants* were exhibited. The first by Mr. Carson, gardener to W. F. G. Farmer, Esq., of Nonesuch Park, Cheam.

Azaleas were numerous, large, and fine; and they made, as they always do at the May show, a very striking display. Two excellent collections of twelve plants were produced; one from Mr. Green, gardener to Sir E. Antrobus, Bart.; the other from Mrs. Lawrence, of Ealing Park. Mr. Green had huge specimens of *Double Red*, *Gledstanesi*, *lateritia*, *præstantissima*, *vivicans*, *sinensis*, *coronata*, *exquisita*, *optima*, *triumphans*, *variegata*, and *Rawsoni*.—Mrs. Lawrence sent fine bushes of *optima*, *Gledstanesi*, *præstantissima*, *coronata*, *Rawsoni*, *variegata*, *speciosissima*, *rosea superba*, *Lawrenceana*, *exquisita*, *sinensis*, and *lateritia*.—Groups of six plants were furnished by Messrs. Carson and Frazer. Among these we remarked *pulchra*, *double red*,

Gledstanesi, lateritia, variegata, speciosissima, splendens, Fielder's White, violacea superba, Smith's Red, and the Chinese Yellow.

Rhododendrons.—A magnificent collection was shown by Mr. Ivison, gardener to the Duchess Dowager of Northumberland, at Sion House. It consisted of beautiful light and purple flowered kinds. The best of the former were stated to have been obtained between altaclerense and the white ponticum; the others between altaclerense and the white tree Rhododendron.

Roses in pots surpassed any exhibition of the kind we have hitherto seen. The collections of both dealers and amateurs showed that each had done his utmost, and the result is that the cultivation of the Queen of Flowers in pots has attained a degree of perfection beyond which it can hardly be expected to be carried. Notwithstanding the little sun we have had, the flowers were beautifully coloured, especially those on Messrs. Lane's plants, and the foliage was ample and clean. The gems of Mr. Francis's collection, to whom the first prize was awarded, were Paul Perras, with blossoms regularly dispersed over the plant, large and well blown; Coupe d'Hebe, with flowers rich in shape and colour, reminding one of those of the old-fashioned Cabbage; Lamarque, a good white, and said to be beautifully scented; Armosa, a profuse blooming medium-sized Rose; Chénédole, and La Reine. We observed in all instances that the buds of the latter did not open kindly. Madame de St. Joseph, in Messrs. Paul's group, which was second, was the admiration of everybody. It is a delicate salmon, with a delicious fragrance, and the plant was covered with blossoms; Vicomtesse des Cazes had been very fine, but its beauty was somewhat on the wane; not so Niphetos, which was just in perfection, and studded with flowers of snowy whiteness; William Jesse and Comte de Paris were also in beautiful condition. Messrs. Lane's plants were insufficiently in bloom; three or four more bright days might have placed them in a different position. Among them were the universal favourites, William Jesse, Duchess of Sutherland, Aubernon, with foliage broad and clean; and the glorious Géant des Batailles. The first of these possessed a surprisingly fine colour for the season. In the collections of Messrs. Terry, Rozer, and Rowland were Aubernon, Fulgorie, Mrs. Bosanquet, Nina, Marquise Boccella, La Reine, Armosa, Géant des Batailles, Blairii No. 2, Augustine Mouchelet, Duchess of Sutherland, Goubault, William Jesse, and Baronne Prevost, the latter with flowers at least six inches in diameter.

Cape Heaths were numerous, and generally finely flowered. Excellent plants were furnished by Mr. Smith, Mr. Cole, Mr. Over, Mr. Roser, Mr. Taylor, Mr. Stewart; and in the Nurserymen's Class by Messrs. Rollisson, Epps, Fairbairn, and Pamplin. The specimens, both in eleven and eight-inch pots, were famous examples of good Heath growing. In the different collections we remarked the following varieties:—Tortiliflora, fastigiata lutescens, suaveolens, ampullacea carminbrata and vittata, ventricosa superba, coccinea minor, propendens, favoides elegans, mutabilis, mundula, dilecta, aristata major, Beaumontiana, perspicua nana, M'Nabiana, denticulata moschata, elegans,

vasiflora, Sprengeli, Hartnelli, andromedæflora, triumphans, viridis, Sindryana, primuloides, odora rosæa, florida, campanulata, Cavendishii, mirabilis, Thunbergiana, depressa, and Webbiana.

Single Specimens.—The best consisted of two plants of the glorious *Mcдинilla magnifica*, and a fine bush of *Erica elegans* from Messrs. Veitch; a beautiful example of *Erica Sindryana* from T. B. Graham, Esq., of Lavender Sweep, Clapham Common; the charming Chinese *Indigofera decora* from Mr. Ivison, gardener to the Duchess Dowager of Northumberland, at Sion; and a nice plant of the Griffith *Ixora* from Mr. Green. In addition to these, Messrs. Veitch furnished the Jasmine-flowered *Rhododendron*; Mr. Cole, the *Cels Hovea*; Mr. May, *Boronia serrulata*; Mr. Stewart, *Physolobium gracile*; Messrs. Fairbairn, *Erica favoides elegans*; and Mr. Stanly, *E. Hartnelli*.

Some interesting novelties were produced. Messrs. Veitch had the lovely *Cantua dependens*; M. Baumann, of Ghent, *Deutzia gracilis*, a white-flowered, slender-growing, hardy shrub, from Japan; Mr. Lodiges, an *Aerides*, with long racemes of gay rose-coloured blossoms, and a new *Lycaste*, from Bolivia, with pale yellow flowers; Messrs. Henderson, the *Broughtonia violacea*; Mr. Franklin, gardener to Mrs. Lawrence, an *Epidendrum*; Mr. Carson, *Trichopilia coccinea*, a promising species, with a large dark red-coloured lip; Mr. Cole, the Oleander-leaved *Allamanda*; Mr. May, gardener to Mrs. Lawrence, *Pimelea Nieppergiana*; and M. de Jonghe, of Brussels, a rather handsome *Billbergia*. These, together with two or three other plants, either not new or unimportant, constituted all that were exhibited in this class.

Pelargoniums were entirely confined to "Fancies" and "Capes," both of which are advancing rapidly in public favour; and, when we consider the variety of colours to be found in the latter, the curious stains and markings of the former, together with their profuse flowering habit, this growing change in their favour is not to be wondered at. Fancies were produced in admirable condition by Mr. Ayres, of Brooklands, Blackheath, and Mr. Ambrose, of Battersea. In the former group, whose flowers were large and fresh, were *Queen Superb*, *Statinski*, *picturatum*, *Hero of Surrey*, *Alboni*, and *Gipsy Queen*. Mr. Ambrose had *picturatum*, *Defiance*, *Madame Meillez*, *Ibrahim Pacha*, *Formosum*, and *Anais*. Mr. Roser's Cape species were well grown and very attractive.

Pansies in pots were exhibited by Mr. Bragg and Mr. Turner. It was predicted that this mode of showing Pansies would prove a failure; but so far from that being the case, we imagine that before long, the system must be universally adopted, so tasteful and effective were those exhibited on Saturday last. Mr. Bragg's varieties were, *Ophir*, *Mr. Beck*, *Polyphemus*, *Constellation*, *Junius*, *Conspicua Juventa*, *Madame Sontag*, *Eliza Ann*, *Queen of England*, *Lady Carrington*, and *Flying Dutchman*. Mr. Turner's plants were, *Juventa*, *Polyphemus*, *Queen of England*, *Surplice*, *Mr. Beck*, *Mrs. Hamilton*, *Thisbe*, *Almanzor*, *Swansdown*, *Constantine*, *Leader*, *Ophir*, *Goliath*, *Euphemia*, *Duke of Norfolk*, *Disraeli*, *Constellation*, *Aurora*, *Bellona*, and *Supreme*.

In the tent provided for seedlings Messrs. E. G. Henderson, of the

Wellington-road Nursery, had a fine collection of new Cinerarias, containing Lady Hume Campbell, white, edged with blue; Marianne, white, tipped with rosy lilac, good in form; Dora, white with lilac disk, but wanting in substance, and Prince Arthur, bright rosy purple. Mr. Hoyle sent Pelargoniums; Chieftain, a dark crimson blotch, lower petals clear rosy crimson; Magnet, brilliant purple crimson, with dark blotch, a fine, bold, free-flowering variety, possessing great substance. Mr. Kinghorn had an Epacris, named Conspicua, a free-flowering kind, in the way of grandiflora, but a considerable improvement on that variety.

HAMMERSMITH HEARTSEASE, *May 7th*.—We remarked the following in fine condition:—Almanzor (Thomson), Ophir (Widnall), Polyphemus (Thomson), Commander-in-Chief (Youell), Constantine and Bertha (Turner), Mrs. M. Hamilton (Nasmyth), Mr. Beck (Turner), Inventa (Hooper), Duke of Norfolk (Bell), Diadem (Fellowes), Dora, Mrs. Beck, and Euphemia (Turner), Constance and Masterpiece (Hooper), Duke of Perth (Handasyde), Pompey and Sambo (Hale), Rainbow (Hall), Queen of England (Fellowes), Elegant (Thomson), Sir J. Franklin, Penelope, Premier, and Ophelia (Fellowes), Rubens, Sir R. Peel, and Zabdii (Thomson), Ibrahim Pacla and Addison (Turner), Thisbe and Supreme. Class showing—for white ground flowers: 1, Mr. Turner, for Almanzor. Yellow ground: 1, Mr. Turner, for Diadem (Fellowes). Yellow or straw (self): 1, Mr. Lane, for Ophir. White: 1, Mr. Turner, for Swansdown. Dark: 1, Mr. Bragg, for Sambo. Mulberry: 1, Mr. Treacher, for a Seedling. The prize of 20s., given by M. Brown, Esq., for the best Seedling, was awarded to Mr. Turner, for "Chieftain," a yellow ground flower, with rich bronze red margin, fine eye, shape, and substance. There were some other seedlings possessing considerable merit; altogether the show was much better than we had expected, owing to the lateness of the season.

TO DESTROY THE FLY WHICH ATTACKS THE ROSE-BUSHES.—Mr. Benton states, in the *Cottage Gardener*, he has tried the following method with success:—Try the effect of clear liquid manure on the fly; and to prove that it is not too strong for the young leaves, first pour some of it over nettles, or some other green weeds full in the sun, and if it is too strong it will scorch them in twenty minutes in the middle of a hot day; add more pond water to it and try again, and when you have it so reduced that soft leaves do not mind it, pour it with all your might against the roses from a garden-syringe, or hand-engine, any time in the day; but, perhaps, the evening is the best time, as the plants will be wet all night, and the bad smell will stifle the creatures. I have found the plan most useful, and I have great faith in it. A certain destruction will be effected by making use of Sangster's Florumbra to cover the tree with, and Brown's Fumigator, with a supply of tobacco, and having lighted it, puff away till the cover is full of smoke. This is soon accomplished. If the plant be covered with a sheet it will hold the smoke, but care will be necessary not to injure the shoots and buds.—*Rosa*.

FLORAL
OPERATIONS FOR THE MONTH
IN THE FLOWER GARDEN.

THE recent fine weather would allow for the planting out in beds, &c., half-hardy as well as the tender annuals, Heliotropes, Pelargoniums, Verbenas, Petunias, Celsias, Zinnias, Stocks, &c.; but any omissions should be attended to at once.

We have frequently called the attention of our young readers to the desirability of paying strict attention to the judicious arrangements of flowering plants, as regards height and harmony of colouring. It is true that, of late years, this subject has become a matter of study amongst gardeners, and great changes for the better have taken place in this respect; still we are far from supposing that we have arrived at perfection. Always bear in mind—if beauty, order, and effect are desired—that attention to this, next to a well laid-out flower-garden, is essential to their full development. In producing well-arranged contrasts, the different shades of colour must be as distinct from each other as possible: for instance, white should never be placed in contact with yellow, or deep blue with crimson; but white forms a good contrast with blue or red, blue to orange, yellow to purple or violet, dark crimson to light blue, and scarlet should be placed near those which have a profuse green foliage, as red and green form the best contrast. Orange and violet do well. Greenish-yellow and rose contrast well.

The only attention now required with such is to water freely, being careful it does not pass off; tie up, &c. Pinks and Carnations will require due care in securing, and by the middle of the month pipings of Pinks may be taken off, and towards the end layers of some early Carnations be made. Thin away extra flower-buds. Dahlias will require securing, and thin out the shoots, so as only to retain about four or five. Stop the leading stem, to give support to the side ones. Cuttings will soon strike root. If the weather be dry, water daily, a good supply at once: a portion of mulchy manure, spread over the roots, is very beneficial. Seeds of Sweet Williams, Canterbury Bells, Scabious, &c., should now be sown for next year's blooming. Auricula and Polyanthus must be kept in a shady but airy place. Prepare the compost for re-potting in next month. Sow seed as early as ripe. Pansy seed also sow. (See Articles on, &c.)

NEW FLOWERS.—Let attention be given to hybridizing, with a view to obtain improved varieties. Roses: maggots often infest the buds; carefully examine and destroy. Green-fly, too, stop at first by fumigation, &c. (See Articles on.) Chrysanthemums: young plants should be prepared for the autumn. Violets for next year's blooming, attend to beds of, &c. (See Articles upon.)

IN THE GREENHOUSE, &c.

The greenhouse plants which are placed out of doors will require to be duly watered, for if allowed to flag the result is the leaves are damaged. Moss sprinkled between the pots keeps the soil cool.

The house will now have to be kept gay and sweet by Balsams, Globe Amaranthus, Cockscombs, Brachycoma, &c. Re-pot as required, to keep the plants in a growing state. Achimenes will now be coming into bloom; they repay for every attention. Cuttings of nearly all greenhouse plants should now be put off: May and June are the best months for that purpose. Cinerarias are highly ornamental, and well worth encouraging. Any done blooming and seed collected, if required, should be turned out of the pots entire into a bed of rich soil, where there is shade from eleven to four o'clock. There they will flourish, and supply an increase for next year's bloom. Cuttings of Roses may be put in, and will soon strike. Camellias that have been forwarded by forcing the shoots and buds, should now be placed in a cooler situation, to give vigour to them. When the grass of Ranunculus or Tulips is quite dead, the roots may be taken up. Pelargoniums, as they go out of bloom, must be prepared for another season. (See Articles on, &c.)

ERICAS.—The early-blooming kinds should be draughted out, and others may follow them as fast as they go out of bloom. Examine the plants very carefully, and see that they are in a proper state as to moisture; and if you are an exhibitor, never put a plant of this or any other kind into a van without previously giving it a good soaking of water. The young plants which are not blooming had best be placed in a pit where they can be exposed or not, as may appear necessary. Stop such as require it boldly back, and train them so as to form a proper foundation for a good specimen. As the principal specimens go out of bloom they may be removed to a shaded situation to make their growth, being previously cut in, if necessary. Supports for an awning must be placed over them, so that in case of heavy storms or continued rain, they can be protected a little. Clear weak manure-water may be used occasionally for the free-growing kinds. With regard to ventilation, there is no fear of your over-doing it after this time. Re-pot any requiring it, but do not over-pot; the one-shift system is injurious to nearly all the tribe, the only exceptions are those of rapid growth and robust habit. Rough peat and silver-sand, with bits of stone, &c., and a liberal drainage, are requisites. Epacris, &c., should also be duly attended to in re-potting, &c.

AZALEAS in the forcing-pit must be kept shaded during bright sunshine, and a moist growing atmosphere must be maintained around them. Water freely with weak guano-water, and sprinkle the vacant parts of the house or pit daily, but not upon the bloom. As the plants go out of flower place them in heat, to perfect their wood for next year's blooming. (See Articles on in previous volumes.)



1. *Ranunculus* Beauty of Durham
2. *Id.* Admirus.



FLORICULTURAL CABINET

JULY, 1851.

ILLUSTRATIONS.

RANUNCULUSES—BEAUTY OF FULHAM AND ADMITTUS.

THESE very beautiful varieties are seedlings, raised by Mr. Theodore Lockhart, seedsman, Fleet-street, London, selected from an immense stock grown most successfully in his grounds, Parson's Green, Fulham.

We have frequently recommended to our readers the cultivation of this most lovely tribe of flowers. They are deserving every attention, and a collection ought to be in every flower-garden. Their cultivation is not difficult, as some persons have concluded, but by very simple, easy means, duly pursued. A very excellent article on the entire treatment is given in our Magazine for July 1849. We have this season seen the collections of several of the principal growers in the south of England, and the plants were universally healthy and in vigorous bloom. We again advise all who have flower-gardens to have a select collection, for when in bloom they compose the most delightful floral sights.

As the *Ranunculus* blooms early in the season, and the tubers are taken up in time to have the bed replanted with other flowering plants—as Scarlet Geraniums, Verbenas, and similar things—a double advantage in variety of floral display is afforded.

NOTES ON NEW OR RARE PLANTS.

CATTLEYA PALLIDA.—Sepals and petals white, with a very slight tinge of sulphur; labellum, tube rose colour outside and yellow inside. Each blossom is about six inches across. It is a superb species. (Figured in *Paxton's Flower Garden*, 48.)

EPISCIA BICOLOR.—Mr. Purdie sent this pretty species from New Granada to the Royal Gardens of Kew, where, in the stove, it has bloomed very freely. It is a dwarf perennial herbaceous plant, with the habit of *Gloxineas*, *Nepheas*, &c., and thrives with similar treatment. The blossoms are *Gloxinea*-like; tube three-quarters of an inch long, and about the same across the five-parted expanded mouth. The tube is white, and the five divisions of the end (limb) a lilac-blue. (Figured in *Mag. of Bot.*)

ERICA LEEANA, var. *VIRIDIS*.—The flowers are green, tube about three-quarters of an inch long; they are produced a little below the ends of the branches, in whorls. It is a free-growing plant, and makes an interesting contrast with the flowers of other colours. (Figured in *Mag. of Bot.*)

FORSYTHIA VIRIDISSIMA.—Introduced by Mr. Fortune from China to the Horticultural Society. It is a branching shrub, grows six feet high, and flourishes trained against a wall, verandah, &c. Its profusion of bright yellow flowers, somewhat of the shape of the large yellow blooming *Jasmine*, but having a very short tube, are produced early in the spring, when the leaves are but partially expanded. It is well worth a place in every shrubbery or garden, and proves to be perfectly hardy. (Figured in *Bot. Mag.*, 4587.)

FRANCISCEA CALYCINA. (Syn. *F. CONFERTIFLORA*.)—This very superb species is a native of Brazil; a neat evergreen bushy shrub, grows freely and blooms profusely. Each flower is nearly two inches across; produced in cymes, of a rich *purple*, with a white ring around the mouth of the tube, but the flower soon changes to a pale purple, and then becomes almost white. It is a handsome plant, well deserving a place in every stove or good greenhouse; we find it do admirably in the latter, being showy, fragrant, and easy of cultivation. Small plants even bloom freely. (Figured in *Bot. Mag.*, 4583.)

IXORA JAVANICA.—It appears there are two different plants in this country bearing the above name, but Sir William Jackson Hooker states the one now figured, No. 4586, June number of *Magazine of Botany*, is the true *I. Javanica*. The drawing was taken from a plant which was introduced into this country by Messrs. Rollisson from Java. It is a shrub, smooth in every part, with compact branches, which are rounded, and the younger ones, at least, are of a rich *coral* colour. The flowers are borne in terminal large corymbs, on a long foot-stalk. The tube of each blossom is an inch and a half long, red; the limb (broad end of flower) is an inch across, of a deep orange-red colour.

PULTENÆA ERICOIDES.—Mr. Drummond sent this beautiful species from the Swan River colony, to Messrs. Henderson, of Pineapple Nursery. It is a dwarfish, compact, greenhouse shrub, having Heath-like foliage, and blooms very profusely. The flowers are produced in what appears to be *terminal* heads, but eventually a shoot proceeds from the centre. The blossoms are of the pea-formed order, each head having twenty or more of them. They are of a rich deep yellow,

with the keel of a rosy-purple colour. Each blossom is about one-half of an inch across. It is a very neat, showy flowering plant, well deserving a place in every greenhouse, forming a charming spring and summer ornament. (Figured in *Mag. of Bot.*)

RANUNCULUS SPICATUS. SPIKE-FRUITED.—A native of Algiers, where it is common on the hills. The flower-stems rise a foot high, each having from four to six blossoms, of a bright glossy yellow colour, with an *orange-coloured* spot at the base of each petal. The flower is two inches across, very showy. It is a hardy herbaceous perennial plant, growing freely in the usual soil of a garden, and commences blooming in April, being very ornamental. (Figured in *Bot. Mag.*, 4585.)

SALVIA GESNERIFLORA.—This exceedingly rich, ornamental flowering species is figured in the June number of *Paxton's Flower Garden*. We figured it four years ago, and then, as well as often since, we have recommended the plant to our readers. It is a noble species for the greenhouse, blooming all through winter, and its *large* spikes of *large* blossoms, of a fine scarlet colour, render it highly ornamental. It deserves to be grown in every conservatory, greenhouse, dwelling-room window, or pit-frame.

SEEDLING NARCISSUS.—Edward Leeds, Esq., of St. Ann's, Manchester, has for many years been engaged in raising hybrids of this pretty tribe of flowers, and has been successful in obtaining many beautiful distinct varieties. Three of them are figured in the *Magazine of Botany*. 1. *Narcissus poculiform elegans*; the flowers large, each four inches across, of a creamy-white, the centre cup of a nankeen colour. 2. *N. Leedsii*; flowers large, of a fine yellow, the cup of a much deeper yellow, with a margin of bright orange-red. 3. *N. superbus*; flowers very deep yellow, with a *large bell-shaped* cup, which is plaited at its margin. They are charming varieties, well remunerating Mr. Leeds for the interesting pursuit and attention.

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 127.)

BY ORION.

TAKING 1836 as the starting point, it will perhaps be as well to notice briefly those varieties which were known and in cultivation previously; and in doing this the writer hopes that he may be excused if, in giving dates, he should occasionally err, as it may perchance happen that the memorandums from which these remarks are taken may have been originally erroneous. The first to be named is the old (and as yet unrivalled for freedom of bloom) *ALBA MULTIFLORA*, which at the present time forms the chief ornament of many a cottage window, and is one of those still sold early in the spring by hawkers, &c., as it is also an admirable one for forcing. *ADMIRAL NAPIER* is a fitting companion to the preceding *white* variety, being of a *bright pink* colour, and is also a very free bloomer. These two seem to keep up

their popularity even now; the writer was passing a cottage the other day, and seeing the window entirely filled with a plant of each was induced to ask for a specimen of their flowers; the favour (for it was considered an especial one, so highly were they prized,) was granted with some reluctance, but an application for a cutting was rejected, though a plant of a superior variety was offered in exchange. But to resume the list: SMUT, BANCHO, and HABRANTHUM were figured in this work for 1835, as stated in the last article; they were sent out by Mr. Dennis, of Chelsea, but obtained very little circulation. Not so the varieties WASHINGTON, DAVEYANUM, MOORE'S VICTORY, and YEATMANIANUM; these were in general request, and considered gems in their day. NOSEGAY, LADY DENBIGH, CURATE, CUPID, and the renowned DIADEMATUM will suffice to complete the list. Those who are able to remember so far back will recollect that most of those named above were very inferior flowers—bad shapes, flimsy petals, and with very uncertain colouring.

In 1836 we find that Mr. Dennis raised and first advertised his PERFECTION; this was a great step in the right direction; it was sold at two guineas per plant, which was not high then. The flower was similar to GAINES' KING, or RISING SUN, but had more violet about it. Gaines this year also raised and sent out his SIR JOHN BROUGHTON, which was a popular flower for some time; it was also priced at two guineas, as was HILL'S DIOMEDE, a flower with dark-veined petals. These were the only celebrities of any account which require notice at the present time.

The year 1837 was remarkable, as a gentleman very much devoted to this flower (first?) appeared with some decided novelties; this was Edward Foster, Esq., who has since contributed so many *notoriously fine flowers*, and too much praise cannot be awarded that gentleman for his long and valuable services. He is *now* as celebrated as when he *first* appeared, though many other raisers have attempted to rival him, and "fell to pass away." ALECIA was his crack flower of this year, and advertised at three pounds; it was then a fine light flower. His ELIZA, IANTHA, LELIA, and LADY NITHSDALE, each two guineas, were not esteemed so long, but were still good acquisitions. COUNTESS OF JERSEY attracted some attention for a time, but her beauty soon faded; this variety was raised by Mr. Blackford, of Jersey, and also priced two guineas. Mr. Lound raised his BRIDE, CRITERION, and the celebrated CHEF-D'ŒUVRE at this time. Gaines sent out his RIENZI at one guinea; ALUSIDORA, BELLISSIMA, and BEAUTY OF WARE were also *then* "worthy of notice," but, like many more "departed worthlies," their fame is forgotten *now*. Beauty of Ware was raised by a gentleman of that town with whom the writer was acquainted, and he was a good instance of an *enthusiast* in the cause, but, like many other careful raisers, only fortunate once or so in their lives at getting a grand prize.

Before proceeding to the year 1838, it will not be out of place to give a slight account of the *letting out* of this period. There were then only three nurserymen who devoted much attention to this flower,

viz., Mr. Catleugh of Chelsea, Mr. Dennis of the King's-road, and Mr. Gaines of Battersea. The first and last named were keen competitors at the grand shows, and amongst gardeners it created as much interest as to who should be first, GAINES or CATLEUGH, as who should be winner of the DERBY amongst the sporting world. Mr. Catleugh was then the more fortunate generally, but he was afterwards often well beaten by his rival. Mr. Dennis usually came off *content* with the third place. Now the principal seedling raisers at this time were Mr. Foster, as above mentioned, and the Rev. Mr. Garth, between whom there was as much (loving) rivalry as the "great exhibitors," as they used to be called. But the system of exhibiting seedlings for prizes had not been adopted, and, generally speaking, nothing was known of the qualities of a new flower beyond the recommendation of the raiser or advertiser. Mr. Catleugh, from his extensive business and large connections, was usually the party who had the *letting out* the new varieties, but it was not done *then* as *now*. The novelties were put at high prices in the spring catalogues, but few were sold until the autumn, when reduced prices were taken. The general plan was to take notice of the best varieties, and wait until the increase of the stock enabled the growers to sell cheaper. Many now say the trade is gone, but the contrary is the case; plants are now advertised at one guinea and one pound ten shillings and sixpence, and, if very good, as much as two guineas is asked, and actually given. But it is very much questioned whether plants advertised at five guineas, as was GAINES' KING, LOUND'S PERFECTION, CONSERVATIVE, RISING SUN, and many others, actually met with a sale at those high prices; and it is a well known fact that such is the demand now for the good and *often-exhibited* novelties, that advertisements not unfrequently appear to say that "such and such a variety cannot be supplied any more this season." This fact does not indicate that indifference to novelties as would appear if the remarks from *certain quarters* were to be believed; far from it—the *legitimate taste* is not to be driven out by any *fancy* or running down it may receive from persons whose will or say is not always to be received for law.

The year 1838 was distinguished by two *five-guinea* varieties appearing—GAINES' KING and LOUND'S PERFECTION, the former being *in every respect a good thing*; indeed it is *now* in many collections, and until very lately, when SALAMANDER took its place, has been found on the exhibition tables. This year, too, a handsome striped variety appeared, called SIDONIA; it is grown now in some *fancy* collections. The Rev. Mr. Garth raised CLIMAX, two guineas; FOSTERI ROSEA, two guineas; INVINCIBLE, three guineas; NULLI SECUNDUS, two guineas; and QUEEN MAB, two guineas; while Mr. Foster's ADELA, thirty shillings; BLEDA, thirty shillings; FAUNUS, two guineas; NIOBE, two guineas; and ORANGE QUEEN, two guineas, divided attention with them. ALEXANDRINA, a nice clear white, appeared too at the moderate price of one guinea, and only gave place to ANNETTE some time after. Such were the principal novelties which appeared during the year 1838.

REMARKS ON THE INDIGENOUS ROSES OF AMERICA, &c.

BY AN ARDENT ADMIRER.

IN a recent number of this Magazine, I observed some observations upon an American Rose, discovered by a female, and named the Maanga Rose. Having seen in an American publication, some extended remarks on the national (indigenous) roses of that portion of the world, I have transcribed a few short particulars of some of the most beautiful:—

“North America: there, 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, there is 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*, 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 lævigata*, 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 Montezuma*; 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 of 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 siuensis*, confounded by some botanists with the preceding, but blowing at all seasons, of a far more brilliant colour. The *Rosa Lawrenceana* 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 30° and 40° 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, Samareand, 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 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 ever-green 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 Majalis*, small, sweet, and of a brilliant colour; and the same beautiful species, as if in enlivenment of the cheerless rudeness of the climate, is to be found in Norway, Denmark, and Sweden. In Lapland, too, under shelter of the scrubby evergreens, among which the natives seek mosses and lichens for the nourishment of their rein-deer, 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 has 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.”

BRIEF REMARKS.

HORTICULTURAL SOCIETY, HELD IN THE CHISWICK GARDENS, JUNE 7TH.—This was the second exhibition held there this season, and the plants, &c., shown were of the most superb character; there were, of course, various degrees of excellence in them, but we did not see a poor specimen in the whole.

Pelargoniums were shown in excellent condition, and in tolerable abundance. Mr. Gaines, of Battersea, obtained the first prize for twelve plants in eight-inch pots. The sorts were: Duchess of Argyll, Aspasia, Prince of Orange, Negress, Mont Blanc, Rosamond, Mars, Salamander, Centurion, Painted Lady, Firebrand, and Star. A second prize was awarded to Mr. Bragg, of Slough, for Forget-me-not, Roseum elegans, Star, Ariel, Norah, Narcissus, Victory, Gulielma, Nepaulese Prince, Conspicuum, Knight of Avenal, Lord Gough. Nine plants in 11-inch pots; 1st, Mr. Chapman, Turnham-green, for Negress, Luna, Duke of Cornwall, Camilla, Emperor, Rosy Circle, Forget-me-not, Salamander, Adonis; 2nd, Mr. Gaines, for Mars, Aspasia, Negress, Rosamond, Marion, Orion, Xarifa, Chieftain, Gulielma.

Fancy Pelargoniums.—1st prize to Mr. Ambrose, of Battersea, for Defiance, Reine des Francais, Formosum, Cleopatra, Fairy Queen, and Modestum; 2nd, Mr. Gaines, for Hero of Surrey, Madame Rosatti, Orestes, Reine des Francais, Odoratum, Magnificum, and Lady St. Germans; 3rd, Mr. E. G. Henderson, Wellington Road, for Mrs. Loudon, Alboni, Annette, Prima Donna, Victoria, Princess Maria, and Galitzin; 4th, Mr. Bragg, of Slough.

Cape Pelargoniums were exhibited by Mr. Parker, gardener to J. M. Strachan, Esq., of Teddington, and Mr. Stanly, gardener to H. Berens, Esq., Sidcup, Kent. The sorts were tricolor, flexuosum, glaucifolium, glaucum, Blandfordianum, quinquevulnerum, ardens, bicolor, and elatum.

In collections of 20 *Stove and Greenhouse Plants*, the first prize was awarded to Mr. May, gardener to Mrs. Lawrence, of Faling-park, for a group whose excellence has never before been approached, even in England itself. It contained a specimen of *Polygala acuminata*, quite seven feet in diameter, beautifully flowered, round and well-proportioned; another, equally large and fine, of *Pimelea spectabilis*, which was the admiration of everybody. This was literally one mass of white, fresh, and beautiful flowers. These were in wooden tubs, the largest sized pots being too small for them. Associated with them were the rosy-flowered *Pimelea Hendersoni*, an admirable specimen of a somewhat slow-growing plant. *Eriostemon buxifolium*, rather past the best; *Erica tricolor rubra*, wonderfully fine; *Pimelea decussata*; *Azalea variegata*; two of the best varieties of *Aphelexis*; *Chorozema Henchmanni*; the graceful *Coleoneina rubrum*; *Leschenaultia formosa*, and the blue variety; the Cavendish Heath; the glowing *Azalea magnifica*; the exceedingly handsome *Dipladenia crassinoda*, beautifully flowered; the Scarlet *Ixora*, and a large and finely managed *Epacris grandiflora*. The second prize was awarded to Mr. Cole, gardener to H. Colyer, Esq., of Dartford, for an exhibition of finely grown plants. It comprised *Polygala cordifolia*; *Pimelea decussata*, a finely blossomed *Stephanotis floribunda*; *Dipladenia splendens*, with three clusters of glorious flowers; the Gledstane *Azalea*, three Everlastings; a handsome *Pimelea Hendersoni*; the Cavendish Heath; an *Azalea*, composed of *lateritia*, *Gledstanesi*, and *variegata*, all worked together on one stem, the different colours effecting a charming contrast; the Scarlet *Ixora*, beautifully bloomed; a well-cultivated Fran-

ciscea acuminata; *Sphenotoma gracilis*, a useful plant for cutting from; *Leschenaultia formosa*, the showy *Rondeletia*, a variety of the Three-coloured Heath, and *Eriostemon cuspidatum*. A third group was contributed by Messrs. Fraser, of Lea-bridge. It consisted of *Epacris grandiflora*, the showy *Clerodendron Kämpferi*, bearing two great panicles of flowers; *Polygala acuminata*, the handsome *Azalea præstantissima*, *Erica perspicua nana* profusely bloomed, *Coleonema rubrum*, the Saffron *Ixora*, the Box-leaved *Eriostemon*, the yellow-blossomed *Hibbertia Cunninghamii*, the Blue *Leschenault*, *Pimelea Hendersonii*, the Cavendish Heath, *Chorozema varium nanum*, *Azalea variegata*, an Everlasting, the Scarlet *Ixora*, *Boronia serrulata*, the snowy white-flowered *Sphenotoma gracilis*, and *Pimelea decussata*. Mr. Stanly, gardener to H. Berens, Esq., of Sidcup, Kent, communicated *Zichya inophylla*, a white *Azalea*, *Leschenaultia formosa*, the purple-blossomed *Chironia glutinosa*, *Erica Cavendishii*, the sweet-smelling *Stephanotis floribunda*, the Large-flowered *Epacris*, *Clerodendron Kämpferi*, the White *Vinca*, the free flowering *Erica perspicua nana*, *Polygala oppositifolia*, and one of the best varieties of *Aphelexis*. Mr. Pamplin, of Lea-bridge-road, sent a fifth group, in which were *Erica Bergiana*, profusely clothed with little purple bells; the Box-leaved *Eriostemon*, the Cavendish Heath, *Polygala oppositifolia*, an Everlasting, *Rhynchospermum jasminoides*, the brilliant *Epacris miniata*, *Pimelea lanata*, *Gompholobium polymorphum*, trained in the form of a bush, and a fine *Eutaxia myrtifolia*.

In collections of fifteen *Stove* and *Greenhouse Plants*, the first prize was awarded to Mr. Green, gardener to Sir E. Antrobus, Bart., of Cheam. In this group we remarked well-managed plants of *Ixora coccinea*; the clear yellow-flowered *Allamanda grandiflora*, the Opposite-leaved *Polygala*, *Rondeletia speciosa*, the variegated *Azalea*, *Boronia serrulata*, the beautiful variety of *Erica tricolor*, called *Wilsonii*, the blue and red *Leschenaults*, an Everlasting, *Chorozema varium nanum*, the neat rosy-flowered *Adenandra fragrans*, the Cavendish Heath, and *Polygala Dalmaisiana*.—Mr. Carson, gardener to W. F. G. Farmer, Esq., of Cheam, sent the next best group, in which were the Variegated *Azalea*, a finely managed *Stephanotis floribunda*, *Allamanda cathartica*, the Fortune *Gardenia*, splendidly flowered, and exceedingly beautiful; an admirable *Ixora coccinea*, *Franciscea acuminata*, a neat *Leschenaultia formosa*, *Dipladenia crassinoda*, trained on a globular wire trellis; a good variety of Everlasting, the Baxter *Leschenault*, *Polygala acuminata*, the sweet-smelling *Sphenotoma gracilis*, a pretty rosy *Azalea*, called *Bella*, the Anemone-leaved *Boronia*, and *Polygala Dalmaisiana*.—A third group was furnished by Mr. Taylor, gardener to J. Coster, Esq., of Streatham. It consisted of *Pimelea decussata*, the large-flowered variety of *Aphelexis spectabilis*, *Sphenotoma gracilis*, the Cavendish Heath, *Azalea formosa elegans*, the beautiful *Boronia pinnata*, the fragrant *Stephanotis floribunda*, very full of bloom; *Leschenaultia formosa*, the Opposite-leaved *Polygala*, the variety of *Erica tricolor*, called *Dumosa*, *Allamanda cathartica*, the Henderson *Pimelea*, *Azalea variegata*, an Everlasting, and a charming example of the Saffron *Ixora*.

Ten *Stove and Greenhouse Plants* were furnished by Mr. Speed, of Edmonton, and Mr. Croxford, gardener to H. Barnes, Esq., of Stamford Hill; they were beautifully grown from seeds consisting of a lovely *Dipladenia crassinoda*, a well-flowered *Clerodendron fallax*, *Stephanotis floribunda*, *Coleonema rubrum*, the White Vinca, the Violet-flowered *Tetralochea verticillata*, the purple *Chironia glutinosa*, two charmingly managed Cape Heaths, and *Cyrtoceras reflexum*.—Mr. Croxford had a very nice *Stephanotis floribunda*, *Epacris grandiflora*, *Crowea saligna*, insufficiently advanced in flower; *Polygala acuminata*, the brilliant *Epacris miniata*, two Everlastings, the Cavendish Heath, *Pimelea Hendersonii*, and the Swan River *Chorozema varium*.

In the class of six *Stove and Greenhouse Plants* there were five exhibitors, all of whom produced creditable collections. The first was furnished by Mr. Kinghorn, gardener to the Earl of Kilmorey, who sent *Aphelexis humilis*; an admirable bush of *Azalea Gledstanesi* and *lateritia*, “worked” together; an excellent variety of *Epacris miniata*, the blue *Leschenault*, a large *Pimelea decussata*, and a beautifully blossomed *Erica perspicua nana*.—Mr. Watson, gardener to Mrs. Tredwell, who was second, had *Hoya carnosa*, *Stephanotis floribunda*, the useful *Justicia carnea*, the violet *Tetralochea verticillata*, *Pimelea decussata*, and *Polygala Dalmaisiana*.—A third group from Mr. Hamp, gardener to J. Thorne, Esq., consisted of the Red *Coleonema*, *Pimelea decussata*, the useful *Sphenotoma gracilis*, an Everlasting *Polygala cordifolia*, and *Acrophylla venosum*.—Mr. Stuart, gardener to T. Huggins, Esq., of Norwood, produced *Pimelea Hendersonii*, the purple variety of *Aphelexis macrantha*, *Erica depressa*, *Polygala Dalmaisiana*, *Aotus limophylla*, rather a pretty plant, and *Pimelea decussata*.—From Mr. Williams, gardener to C. B. Warner, Esq., came *Aphelexis splendens*, the free-flowering *Erica ventricosa coccinea minor*, the Opposite-leaved *Polygala*, a neat well flowered plant of the Fortune *Gardenia*, with large white waxy blossoms just in perfection; the showy *Azalea fulgens*, and *Boronia serrulata*.

Orchideous Plants.—First, Mr. Mylam, gardener to S. Rucker, Esq. It consisted of *Odontoglossum citrosimum*, finely flowered and wonderfully coloured; a nice bush of the Purple *Camarote*, the Sweet *Vanda*, the Large-flowered Butterfly plant (*Phalænopsis grandiflora*), the brown *Oncidium crispum*, in fine condition; *Aerides virens* and *crispum*, *Anguloa uniflora*, quite a mass of white flowers; small plants of the purple *Saccolabium ampullaceum* and the singular-looking *Odontoglossum niveum*; *Chysis bractescens*, *Lycaste Deppei*, beautifully blossomed; the rare *Dendrobium Dalhousieanum*, the curious rather than beautiful *Cœlogyne Lowii*, the Three-coloured *Vanda*, the showy Moss *Cattleya*, the yellow-flowered *Anguloa Clowesii*, and the curious green-blossomed *Cynoches chlorochilum*.—The second prize was awarded to Mr. Blake, gardener to J. H. Schröder, Esq., of Stratford, for a splendid specimen of *Phalænopsis*, quite a mass of lovely blossoms; *Oncidium ampliatum*, finely flowered; the charming *Dendrobium Devonianum*; the Cloves *Anguloa*; a variety of the Aromatic *Lycaste*; *Aerides affine* and *crispum*; a large plant of *Dendrobium sanguinolentum*; the Bearded Lady’s Slipper, the beautiful *Epiden-*

drum cinnabarinum, the Three-coloured Vanda, *Dendrobium chrysanthum*, *Onchidium Papilio*, the snowy white *Calanthe veratrifolia*, *Schomburgkia tibicinis*, *Vanda cristata*, and *Epidendrum cochleatum*.—Mr. Franklin, gardener to Mrs. Lawrence, obtained a third prize for a charmingly-flowered example of the Moss Cattleya, *Oncidium flexuosum*, beautifully managed; a *Phalænopsis*; the Roxburgh Vanda; the Twisted *Trichopil*; *Vanda teres*; the Clowes *Anguloa*, bearing four large clear yellow flowers; *Sobralia macrantha*, with seven large purple blossoms; the orange *Epidendrum vitellinum*, *Acineta Humboldtii*, in beautiful condition; *Epidendrum crassifolium*, the handsome *Odontoglossum hastilabium*, the Long-tailed Angrec, *Brassia Wrayæ*, the rare and beautiful *Cattleya Aclandiae*, *Stanhopea oculata*, and a highly-coloured *Vanda tricolor*.—Mr. Williams, gardener to C. B. Warner, Esq., of Hoddesdon, had a well-managed example of *Dendrobium Pierardi major*, *Aerides odoratum*, the singular *Oncidium phymatochilum*, *Cœlogyne Lowii*, the charming *Saccolabium guttatum*, a *Phalænopsis*, a variety of *Aerides crispum*, the African *Ansellia*, a neat bush of *Dendrobium cærulescens*, a variety of *Vanda Roxburghii*, *Brassia verrucosa*, one or two *Aerides*, the Bearded Lady's Slipper, and a few other plants.

In the Nurseryman's Class of fifteen *Orchids*, Messrs. Veitch and Rollisson produced collections. The former sent *Sobralia macrantha*, with ten large flowers on it; a beautifully blossomed *Oncidium sphacelatum*; the noble and close-flowered *Dendrobes*; *Calanthe veratrifolia*, with nine flower spikes; *Saccolabium præmorsum*, in charming condition; three species of *Aerides*, the Moss Cattleya, *Cypripedium barbatum*, *Brassia caudata*, and the white Butterfly plant (*Phalænopsis*).—Messrs. Rollisson had a spreading *Oncidium sphacelatum*, *Brassia verrucosa*, beautifully flowered; the white, yellow-stained, *Dendrobium formosum*, the Moss Cattleya, *Saccolabium guttatum*, the Twisted *Trichopil*, *Saccolabium præmorsum*, *Miltonia spectabilis*, a small plant of *Burlingtonia venusta*, *Aerides odoratum*, *Stanhopea oculata*, the white Butterfly plant, *Sobralia macrantha*, and the Dalhousie *Dendrobe*.

Collections of ten *Orchids* were contributed by Mr. Carson, gardener to W. F. G. Farmer, Esq., and Mr. Wooley, gardener to H. B. Ker, Esq. Mr. Carson sent *Acineta Humboldtii* in a square wire basket, producing eight flower spikes; *Oncidium flexuosum*, one of the best of the small brown and yellow flowered kinds; *Brassia brachiata* and *verrucosa*, the Bearded Lady's Slipper, the Spotted *Saccolabe*, with five nice flower spikes, *Anguloa Clowesi*, insufficiently in flower, *Aerides crispum*, the purple *Epidendrum phœniceum*, and a finely flowered Moss Cattleya.—Mr. Wooley produced the Aloe-leaved *Cymbid*; a small example of *Dendrobium Farmeri*; *Sobralia macrantha*, with three open flowers on it; *Peristeria elata*, beautifully blossomed; the Brazilian *Oncidium flexuosum*, *Epidendrum crassifolium*, the spotted *Saccolabe*, the Moss and Forbes Cattleyas, the latter in lovely condition, and *Vanda Roxburghii*.

Groups of six *Orchids* were communicated by Messrs. Kinghorn, Ivison, and Green. The former had the white Butterfly plant, bearing a spike of flowers upwards of two feet in length, the larger variety of

Oncidium ampliatum, charmingly blossomed, *Calanthe veratrifolia*, producing six flower spikes, the Intermediate and Forbes' Cattleyas, and a neat *Dendrobium cæruleseens*. Mr. Ivison sent two nice examples, *Oncidium luridum guttatum*, and *O. altissimum*; *Epidendrum macrochilum*, *Brassia maculata*, the Three-coloured Vanda, and the pale variety of *Cattleya labiata*. Mr. Green contributed *Brassia Wrayæ*, *Oncidium altissimum*, *Epidendrum crassifolium*, *Oncidium divaricatum*, a pretty species, and an *Epidendrum*.

Roses in pots.—The gems of Messrs. Lane's group, which was first, were *Chénédolé*, beautifully blossomed, *Celine*, and *Souvenir de la Malmaison*.—Mr. Francis produced *Coupe d'Hébé*, *Wm. Jesse*, *Pauline Plantier*, *Sophie de Houdilot*, *Souvenir de la Malmaison*, *Belle de St. Cyr*, *Reine du Vierges*, *Baronne Prevost*, *Triomphe de Laqueue*, *Duc de Cazes*, *Aubernon*, and *Las Cazes*.—In the Amateur's Class, the first prize was awarded to Mr. Terry, gardener to Lady Puller, for nice plants of *Persian Yellow*, *Robin Hood*, *Coupe d'Hébé*, *Sophie de Marcilly*, *Colonel Coombs*, *Ceillet Parfait*, *Mrs. Bosanquet*, *Souvenir de la Malmaison*, *Charles Duval*, *Chénédolé*, *Elise Sauvage*, and *Baronne Prevost*.—Mr. Rowland, who was second, had excellent examples of *Souvenir d'un Ami*, large and sweet; *La Reine*, in good condition; *Blairii*, No. 2, and *Chénédolé*.—Mr. Francis showed the following yellow varieties in a cut state: *Williams' Double Yellow*, *Single Yellow*, *Yellow Banksia*, *Elise Sauvage*, *Harrisonia*, and *Smith's Yellow*.

Messrs. Veitch exhibited a fine collection of *Pitcher Plants*, viz.: *Nepenthes Rafflesiana*, *sanguinea*, *lævis*, *distillatoria*, *phyllamphora*, *ampullacea*, and *albo-marginata*; together with *Sarracenia purpurea*, *flava*, *Drummondi*, and *variolaris*. They were fine specimens.

New Plants.—Messrs. Veitch sent a yellow shrubby *Calceolaria* from Peru, *Dendrobium Veitchianum*, *Cantua dependens*, *Deutzia gracilis*, and a species of *Eurybia* (?) from New Zealand, with close heads of dingy white Aster-like flowers; *Clerodendron Bethuneanum*, came from Mr. Speed; *Gastrolobium cuneatum*, from Messrs. Henderson; Mr. Williams sent *Trichopilia coccinea*; and from Mr. E. G. Henderson, *Sinningia punctata*, much superior to *S. guttata*.

Single Specimens.—The best of these was a very handsome standard yellow *Rhododendron*, from Mr. Edmonds, gardener to the Duke of Devonshire, at Chiswick-house; a fine bush of *Erica metulæflora*, from Messrs. Veitch; noble plants of *Erica Cavendishii*, *Pimelea Hendersoni*, and *Leschenaultia formosa*, from Mr. Kinghorn and Mr. Cole; the larger variety of the blue *Leschenaultia*, from Mr. May, gardener to Mrs. Lawrence; and *Clerodendron fallax*, in admirable condition, from Mr. Speed, of Edmonton.

Ranunculuses.—Mr. Costar, of Benson, exhibited the following beautiful varieties: *Apolla*, *Joseph Paxton*, *Atlas*, *Dr. Lindley*, *Eliza Cook*, *Mr. Tyso*, *Lady Sale*, *Lord Gough*, *Regalia*, *African*, *Mr. Wolland*, *Sophia*, *Medora*, *Delectus*, *Naxara*, *Cedo Nullii*, *Squire Devenish*, *Sabina*, *Victoria*, *Alice Maud*, *Gentoo*, *Mr. Shelling*, and *Mrs. Turner*.

Calceolarias.—Collections were shown by Mr. Franklin and Mr.

Chapman, of Turnham Green. The former had Elegans, Earl of Roslyn, Admiral, Goldfinch, Isabella, Alonza, Lord Byron, Grandiflora, Bridal Ring, Miss Talbot, and Lucy Ashton. The latter sent Success, Cavalier, Florabunda, Sidonia, Crocus, Marion, Alpha, Cardinal, Sappho, Prince of Wales, Cleopatra, and Keepsake.

New Daisies.—Mr. Salter, of Versailles Nursery, had a collection in pots, among which was the following pretty varieties:—Decora, Jupiter, Coquette, Bacchus, Bertha, Leontine, Gertrude, Charlotte, Amalie, Winter.

Pansies were shown by Mr. Francis, of Hertford, and Mr. Bragg, of Slough. Mr. Francis had Juventa, Duke of Norfolk, Marchioness of Lothian, Mrs. Beck, Penelope, Lucy Neal, Aurora, Purity, Androcles, Supreme, and Miss Edwards. Mr. Bragg produced Junius, Industria, Clotno, Vulcan, Viceroy, Queen of England, Lucidum, Magnificent, Snowflake, Lucy Neal, and Madame Sontag. They were shown in pots; thus the flowers were in their natural form, and not, as practised by some, had a night's pressure of penny pieces upon them to render them of even surface.

EXHIBITIONS HELD IN THE ROYAL BOTANIC SOCIETY'S GARDEN, REGENT'S PARK. *May 14.*—The sixteen collections of stove and greenhouse plants, comprised 170 plants, and among them were the following fine specimens. The height and breadth of the plant in feet is given, that our readers may have an idea of what excellence such plants may be brought to. *Acrophyllum venosum* (Cole), two feet by two feet, well managed. *Aphelexis sesamoides rosea* (Cole), two by two, covered with flowers. *A. purpurea grandiflora* (Williams), two by two. *Adenandra fragrans* (Green), two by two, a beautiful specimen, densely flowered. *A. speciosa* (Taylor), five by four, well flowered. *Azalea Murrayana* (Cole), four by three, profusely bloomed. *A. fulgens* (Cole), three by three, well bloomed; (Frazer), six by four, profusely bloomed. *A. indica vivicans* (Green), five by four, a most gorgeous plant. *A. sinensis* (Green), four by three, splendidly bloomed. *A. indica alba* (Taylor), five by four, splendidly in bloom. *Bossica disticha* (May), four by four, a splendid, rare plant, well bloomed. *B. linophylla* (Carson), an elegant drooping plant, five, covered with bloom. *Boronia pinnata* (Taylor), three by three. *Chorozema Henchmanni* (Croxford), three by two; (May), three by three and a-half, healthy and well-bloomed. *C. Lawrenciana* (Speed), three by three. *Chironia glutinosa* (Cole), three by two, scarcely in bloom, but well grown. *Dilwynia eriocephala* (Green), three by three, a dense bush, thickly bloomed. *Epacris miniata* (Cole), four by three, a splendid plant, profusely bloomed; (Croxford), three by three. *E. grandiflora* (Stanley), four by three, a noble plant well bloomed; (Green), three by three, well flowered. *Erica ventricosa coccinea minor* (Cole), three by three, most profusely bloomed. *E. Hartnellii* (Stanley), two by two, well bloomed. *E. perspicua nana* (Stanley), three by three, densely bloomed. *E. perspicua* (Frazer), two by two, densely flowered. *E. propendens* (Williams), three by four, an immense plant, nearly weighed down with bloom. *Eriostemon intermedium* (May), three by two, a well flowered plant. *E. neriifolium*

(May), three by three, fine, well bloomed. *E. buxifolium* (Cole), three by three fine, well bloomed; (Taylor), five by four. *Eutaxia pungens* (Speed), three by three, profusely bloomed. *Franciseea macrophylla* (Carson), well bloomed, with twenty-five heads of flowers. *Gompholobium polymorphum* (May), two by two, trained to a globular trellis, and densely bloomed. *Hoya carnosa* (Taylor), three by three. *Hovea belsia* (Stanley), three by two, in profuse bloom. *H. pungens* (May), two by two, difficult to manage, covered with blossoms. *Ixora Javanica* (May), three by three, a fresh plant, with scores of heads of blossoms. *Leschenaultia Baxterii* (May), two by three, a fine, well bloomed plant. *L. formosa* (Cole), two by three, profusely covered with blossoms. *L. biloba major* (Cole), three by three, well bloomed. *Pimelea spectabilis rosea* (May), three by four, completely hid by its fine heads of blossoms. *Polygala Dalmaisiana* (Green), three by three, well grown and profusely bloomed. *Stephanotis floribunda* (Cole), four by three; (Speed), five by two and a-half. *Tropæolum tricolor major*, Stanley, and *grandiflora*, (Stanley), three well grown and profusely flowered plants, trained to circular trellises.

American Plants.—The display of Rhododendrons, Azaleas, and Kalmias, was most magnificent. The large standard Rhododendron roseum elegans of Mr. John Waterer's of Bagshot, was indeed an exhibition of itself. It has a head thirty feet in circumference, which was profusely covered with blossoms of the most exquisite colour. We learn that several gentlemen of distinction from Russia and Germany, have stated that were the tree shown in its present splendour in St. Petersburg, Berlin, or Vienna, it would attract crowds of admirers. But Mr. Waterer has in this exhibition many other large standards of great beauty, though none so large as this. Of the more choice or new kinds now in fine condition, we have noted the following as deserving special notice:—*Cruentum*: Very rich crimson, with a fine handsome truss of prettily spotted corollas. *Gloriosum*: A beautiful white variety, with equally large heads of handsome corollas, which are spotted with green. *Hybrid Catawbiense*: A very rich coloured variety, nearly white in the interior of the uppermost petal, and altogether tinged with violet. The specimen of this (which stands at the north-west entrance) is about thirty feet in circumference, and presents a splendid mass of bloom. *Luciferum*: A clear light lilac, slightly tinged with rose; corollas very large and handsome. This is a most desirable variety, and was raised by Mr. Waterer two or three years ago. *Delicatissimum*: One of the very best light varieties in cultivation, with large trusses of white flowers tinged with faint rose, and beautifully spotted with green. Mr. Waterer has in this exhibition, as well as in his nursery grounds, several of the largest and most handsome plants of it in the country. *Macranthum*: A first-rate late flowering variety, the corollas of a beautiful pale rose colour, the margins stained with deep crimson, and the interior finely spotted with orange. *Cyaneum*: This is an excellent purple sort; and the plant we noticed is remarkably handsome, and fully five feet through. It makes a beautiful object in a shrubbery, or on a lawn. *Pictum*: This is a very delicate white variety, readily distinguished by its rich orange spotted at the interior, and desirable

on account of its flowering late. *Nivaticum*: Another beautiful white, the plant here is large and remarkably handsome. *Ponticum album*: Of this fine white, there is here a superb example, the plant being fully nine feet high. The head is about three feet through, and supported on a stem six feet high. *Catawbiense (duplex)*: This is a singular variety, distinguished by its pretty pink double flowers, which are very profuse. *Everestianum*: A remarkably free-blooming sort, forming one of the most beautiful and desirable objects for a lawn or shrubbery. The plant under notice is about five feet high, and profusely flowered. *Erectum*: A first-rate crimson variety in the way of Blandyanum, and equally as good. *Leopardii*: This is a fine rose-purple, and, as the name implies, is distinguished by its large and handsome corollas, which are freely spotted with very dark purple. *Fimbriatum*: A capital variety, with delicate crimson flowers, and very handsome habit. *Album elegans*: This is perhaps the best white in cultivation. The trusses are large and handsome, and the corollas very distinct. The plant here is about nine feet high; the head being three feet through, supported on a stem six feet long. There are many more first-rate sorts, which, even to name, would occupy more space than it is possible for us to give at one time. We shall therefore close our notice of this division, by relating an incident to which no little interest is attached. On the morning of the second general exhibition, the Duke of Norfolk, on visiting the American Garden, with the whole of which he expressed himself much gratified, was attracted by an unnamed new variety, of an exquisite rose or crimson colour, in Mr. Waterer's collection. His Grace, who could well appreciate its rich colour and handsome form, was pleased to permit his name to be affixed to it. Among the more desirable or prominent still in Mr. Baker's collection the following deserve mention:—*Maculatum grandiflorum*: This is very well named, as the corollas, which are of a dark purple colour, and much spotted at the interior, measure rather more than three and a-half inches. *Ponticum album*: A first-rate light coloured variety, with handsome heads of large flowers. *Myrtifolia*: A very desirable dwarf shrubby variety, with clusters of small white flowers, which, however, in the open ground are rather of a rose colour; the foliage is small and neat. *Hyacinthiflora*: A distinct variety, with pretty pink double flowers and handsome leaves. *Catawbiense splendens*: this is a well-known and beautiful rosy-lilac variety, which has been very fine in this collection. Besides these, *Mammoth*, *Cunninghamii*, *ignescens*, and *delicatissimum*, deserve notice as varieties of great merit. *Auculifolia*: remarkable for the distinct yellow margin of the leaves. Mr. Baker has also some fine standards and large bushy plants, besides numerous capital new light varieties which have not yet been named; also handsome and choice *Azuleas*, *coniferæ*, &c. Messrs. Standish and Noble's collection, has been, from the beginning, in fine flowering order, and, as might be expected, some of the plants are now passed their best; there is still, however, a rich display on this side. The most noticeable are—*Mrs. Bartholomew*: A rosy purple variety with good trusses of large corollas. *Gulnare*: A fine white tinged with pink. *Zuleika*: This is a very delicate coloured variety, somewhat similar to the pre-

ceding. *Ingomar*: A choice late variety of a beautiful rosy crimson. *Erectum*: There is here a fine plant of this admirable variety. *Nobleanum bicolor*: A pretty variety in the way of *Erectum*. In this collection there is also a plant of the far-famed fenubral *Cypress*, about six feet high, which, however, does not assume the pendulous form which it is said to have when full grown.

Roses in pots formed the grand feature of the show—sweet, large, and beautiful. Messrs. Lane's collection, which was first, was uncommonly fine. Their *Coupe d'Hébé* was a mass of flowers, rich in colour and regular in form. Mr. Francis, too, had the same variety in beautiful condition, as had also Messrs. Paul. Indeed few *Roses* are more handsome or useful than this fine kind. Among other varieties we noticed *Louis Bonaparte*, *Miellez*, *Bironne Prevost*, *Géant des Batailles*, *Souvenir de la Malmaison*, *Duchess of Sutherland*, *Vicomtesse des Cazes*, *Devoniensis*, *Blairii No. 2*, *Pauline Plantier*, *Paul Perras*, *Armosa*, *Augustine Mouchelet*, *Elise Sauvage*, *Goubault*, *Niphetos*, *William Jesse*, *Mansais*, *Madeleine*, *La Reine*, *Bongère*, and *Auberon*. In the *Amateurs' Class*, Messrs. Terry, Williams, Roser, Rowland, and Chitty, had beautifully managed plants, more especially Mr. Terry's. The foliage was clean and healthy, and the blooms numerous and well blown. Dr. Marx, *Persian yellow*, *Lamarque*, *Las Casas*, Mrs. Bosanquet, *Bouquet de Flore*, *Bourbon Queen*, *Bardon*, *Tagliioni*, *Fabvier*, *Odorata*, *Comtesse de Lacépède*, and *Madame Legras*, were remarkable for beauty and profusion of bloom. Mr. Francis had a box full of *Géant des Batailles*, "worked" plants in 3-inch pots, each having a single stem about a foot high, with a brilliant crimson or rather scarlet flower on its summit. These excited much interest, as well they might, for such plants will doubtless be found very useful for many purposes for which large specimens would be worthless.

Cape Heaths were numerous, and for the most part well bloomed. Splendid plants were produced by Messrs. Smith, Cole, Rollison, Veitch, and others. Among the different varieties were *Aristata major*, *Beaumontiana*, *Westphalingia*, *Ventricosa coccinea minor*, *tortiliflora*, *suaveolens*, *Cavendishii*, *Favoides* and its purple variety, *Macnabiana*, *mutabilis*, *ampullacea*, *Sprengeli*, *hybrida*, *florida*, *intermedia*, *Ventricosa carnea*, *Fastigiata lutescens*, *Perspicua nana*, *metulæflora*, *Odora ro-æ*, and *Hartnelli*.

The best *Single Specimens* consisted of the *Cattleya mossiæ*, from Messrs. Veitch; a huge *Pimelea spectabilis* and *Boronia serrulata* from Mr. May, gardener to Mrs. Lawrence; *Erica perspicua nana*, from Mr. Smith, gardener to W. Quilter, Esq.; *Epacris grandiflora*, from Messrs. Fraser; and *Leschenaultia formosa*, from Mr. May, gardener to Miss Traill.

New Plants.—In addition to those produced at Chiswick, Messrs. Veitch had *Pimelia verschaeltiana*; Messrs. Henderson, *Ceanothus pillosus* and *rigidus*, and *Franciscea confertiflora*, a promising violet-flowered species; the sulphur-coloured *Brunfelsia nitida*, from Jamaica, was shown in this class by Mr. Mitchell, of Brighton; *Marshall's Wallflower*, diffusing a fragrance like that of *Violets*, by J. Edwards, Esq., of Holloway; the *Oleander-leaved Allamanda*, and some equally

well known plants from Messrs. Henderson, of the Wellington-road Nursery. We also remarked that certificates of merit were awarded to cut specimens of *Beaumontia grandiflora*, and the very fragrant *Murraya exotica*. Mrs. Lawrence had *Pimelea Nieppeergiana*, *Hoja bella*, and a cut spike of *Amherstia nobilis*.

Among seedling *Pelargoniums*, the best was Mr. Hoyle's Magnet, which was awarded a certificate of merit for fine colour and abundance of bloom. He had also Chieftain, which is a good flower, and others; Mr. Turner showed First of May; Mr. Dobson, gardener to Mr. Beck, Leader, a very promising flower, Gem, Vulcan, and Isabella; and Mr. Ayres received a certificate of merit for his Fancy, called Formosissimum.

June 11.—*Pelargoniums* were shown in great abundance, and in excellent condition. The prizes offered by the "Seedling Pelargonium Fund" were contested for on this occasion, on which the following raisers were contributors, and many varieties were represented by two, three, and four plants:—From Mr. Beck were Incomparable, Gem, Arethusa, Ambassador, Painter Improved, Cardinal, and Exhibitor; from Mr. Story, Purity; from Mr. Hocken, Nightshade and Honey-bell; from Major Foquett, Annette and Agatha; from Mr. White, Charming May and Martile; from Mr. Bragg, Jullien; from Mr. Turner, Flying Dutchman, Vivid, Supreme, Little Nell, Proteus, Breba, Cynthia, Sheet Anchor, and Illuminator; from Mr. Foster, Scarlet Eclipse, Shylock, Lablache, Optimum, Purple Standard, Rubens, Ariadne, Eurydice, Enchantress, Pulerum, Lavinia, Melissa, and Pansy; from Mr. Hoyle, Beatrice, Elise, Herald, Magnet, Ganymede, Remus, Chieftain, Azim, Colonel of the Buffs, and Van Tromp. The Censors, Messrs. Riley, Stains, Veitch, and Robinson, furnished the following award: First prize, Magnet (Hoyle); second prize, Purple Standard (Foster); third prize, Elise (Hoyle); fourth prize, Ganymede (Hoyle); fifth prize, Scarlet Eclipse (Foster); sixth prize, Arethusa (Beck); seventh prize, Herald (Hoyle).

Seedling Fancy Pelargoniums were shown in classes, the division of colours being—Class A, light flowers, not darker than Modestum; Class B, rose flowers, not darker than Minerva; Class C, crimson flowers, not darker than Fairy Queen; Class D, dark, not lighter than Hero of Surrey; Class E, dark self, not lighter than Defiance. In these classes thirty-four varieties were shown. The censors made the following award: Class A, none worthy; Class B, Mirandum (Ayres), a second prize; Class C, Formosissimum (Ayres), a first prize; Perpetuum (Ambrose), a second prize; Triumphant (Ambrose), a third prize; Class D, Superbum (Ambrose), a first prize; Richard Cobden (Ambrose), a second prize; Caliban (Ayres), a second prize (equal); Gipsy Queen (Ayres), a third prize: Class E, Captivation (Ambrose), a first prize; Advancer (Ayres), a second prize.

The Society's certificates were awarded to Ariadne (Foster), and Elise (Hoyle). A small silver medal was awarded to Magnet (Hoyle), for an exhibition of four plants; the same variety receiving the Society's certificate at the previous exhibition.

In *Fancy Pelargoniums*, Superbum (Ambrose), Advancer (Ayres),

and Captivation (Ambrose), were selected by the Society's censors for certificates. [The descriptive particulars we shall give in our next number.]

The collection of cut blooms of *Ranunculuses*, by Mr. Carey Tyso, of Wallingford, which gained the first prize, contained the following fine varieties:—Amasis, Dr. Channing, Apollo, Naxara, Irreproachable, Felix, Faustina, Lambton, Hephzibah, Milo, Berinus, Protector, Burns, Alexis, Lady Dartmouth, Carouse, Kilgour's Queen and Princess, Coronation, Exhibitor, Festus, Delectus, Margaret, Sabina, Costar's Apollo, Gomer, Olympia, Dr. Neill, Mrs. Neilson, Highland Venus, Xerxes, Regent, Saladin—many of them seedlings raised by Mr. Tyso.

NATIONAL FLORICULTURAL SOCIETY. *May 8.*—R. Stains, Esq., in the chair. Twenty-eight new members were elected, and thirteen proposed.

Amongst the articles exhibited was a seedling *Azalea indica*, named *Pictura*, from Mr. Reed, gardener to W. Coombes, Esq. The censors gave it a commendation, the third degree of excellence. Free bloomer, good habit, medium form, large size, white ground striped with rosy purple. A seedling *Cineraria*, named *Prince Arthur*, came from Mr. E. G. Henderson, St. John's Wood. It received a commendation for an advance of form in that colour (rich crimson, the same as *Flora McIvor*); habit tolerable, as far as we could judge from the size of the plant. A cut flower of a seedling *Azalea*, unnamed, came from Mr. Cathel, of Wavertree, near Liverpool. This is a promising flower, of excellent form and good substance, but rather deficient in colour. The censors would like to see it again on the plant, in order to judge of its habit.

The Rev. Mr. Garrett sent a seedling *Pansy* of some merit. The censors desired it to be sent again in better condition.

Sixty seedlings of various kinds, but chiefly *Cinerarias*, were exhibited, and the above-mentioned were all the censors thought worthy of any remark. No first class prizes, or even certificates, were awarded, the censors, one and all, being firmly resolved that nothing shall receive a favourable opinion from them unless it be decidedly superior to varieties already before the public.

The rooms were ornamented, as usual, by collections of named plants in bloom.

Mr. Henderson, of St. John's Wood, sent a choice collection of six new *Cinerarias*, viz., *Lady Hume Campbell*, white, blue tips, excellent form; *Marianne*, white, with purple tips (this obtained a certificate at the last meeting); *Mrs. Sidney Herbert*, pale rose; *Catherine Hayes*, blue tips, white ground, excellent form; *Catherine Seaton*, white ground, crimson border; and *Madame Sontag*, white centre, lilac tips. Besides these, on another table, the same gentleman sent a collection of twenty still older varieties.

Mr. Henderson, of Pine-apple-place, sent also a collection of new *Cinerarias*, amongst which were *David Copperfield*, with a grey disc, belted with rosy crimson; *Lettice Arnold*, rosy purple and white,

large, and of a compact habit; Renville, violet blue, with a belt of white round the disc; Lady Gerrade, deep blue self, broad petals, habit dwarf and compact; Nymph, white, with dark disc; Pauline, violet plum self, very distinct, fine form, and excellent habit. Also a splendid plant of *Azalea magnifica*, covered with its semi-double rosy crimson blossom; also, a fine high-coloured seedling *Amaryllis*, named Professor Leibig; a pretty Heath, named Victoria; a hybrid allied to *E. aristata*; and the pretty *Cheiranthus Marshallii*, a hybrid with large golden flowers, of a good form; also a pretty *Geranium*, named White Unique, which promises to be an useful bedding variety. Mr. Bragg, of Slough, sent a fine pan of Pansies in excellent condition. Mr. Epps, an Erica named *E. tricolor Eppsi*. Mr. Ayres sent some fancy *Geraniums*; and Mr. Ivery, a *Pelargonium* named Lilac Unique.

May 22—On this occasion both seedling and named plants were supplied in tolerable profusion and variety. Of *Pelargoniums*, Mr. Beck's Incomparable was commended for fine colour, and Mr. Hoyle's Magnet and Herald were recommended to be "seen again." Among *Cin-rarias*, a certificate was awarded to Rosalind, a medium sized white flower with a grey disc, and narrowly edged with ultramarine blue. This was shown by Mr. Henderson, of the Wellington-road Nursery. *C. formosa*, from Mr. Ambrose, was commended as a good marketable kind: it is a white ground flower, with a rosy purple tip. *C. non-uch*, a lilac purple self, from Mr. Henderson, was also commended by the censors. Some nice-looking *Calceolarias* were produced by Mr. Gaines and others; but none were considered by the judges worthy of distinction. Pansey Pandora, from Mr. Hunt, received a certificate: it has a bright yellow ground, with a broad purple margin shaded with puce; surface smooth, and substance and shape good. A white ground seedling Pansey, from Mr. Chater, was commended. A collection of *Mimulus* came from Mr. Wyness, and another of breeder Tulips from Mr. Willison, of Whithy. Among the latter we remarked a finely-formed rose, called Juliet, with a very fine base. *Gloxinias*, *Cin-rarias*, &c. were exhibited by Mr. Henderson, Wellington-road Nursery, and miscellaneous plants by Messrs. Henderson, of Pine-apple-place, and others. Fancy *Geraniums* were plentiful; and conspicuous among other things on the table were a straw-coloured *Rhododendron*, and a pink *Azalea*, stated to be a hybrid between a *Rhododendron* and an *Azalea*.

June 12.—There was a good display of seedling *Pelargoniums* on this occasion. A first class certificate was awarded to Elise, a large flower, with pink under petals, and white eye. Upper petals maroon, edged with delicate pink; a similar award was made to Ganymede, a distinct nice-looking flower with delicate pink under petals, shaded with lilac; upper petals dark, narrowly edged with lilac. Ditto, to Magnet, on account of its fine colour and profusion of bloom. The above came from Mr. Hoyle, of Reading. Mr. Beck, of Isleworth, received a certificate for Arethusa, a nice variety, with maroon top, very delicate salmon under petals, and a light eye. Incomparable, from the same raiser, was commended for fine colour. Purple Standard, from E. Foster, Esq., of Clewer, received a certificate; and so did the same

grower's Enchantress and Ariadne, both highly desirable sorts, more especially the latter. Mr. Ayres, of Blackheath, was awarded a first-class certificate for a fancy Pelargonium, named Advancer, a well-shaped very desirable flower; and certificates for Caliban, Miranda, and Gipsy Queen. Beauty of St. John's Wood, from Mr. E. G. Henderson, was commended for its colour; but in its present state it is too small. The same nurseryman's Queen of the Faucies was commended for fine form and general promising appearance. Dr. Maclean had a seedling Pink, called Mrs. Maclean. Some Calceolarias were shown; but none were considered worth rewarding. A shrubby yellow flowered bedding kind, from Wood and Ingram, of Huntingdon, but it was loose in habit. Wellington Hero (bright yellow), from Mr. E. G. Henderson, was commended for bright colour. Mr. Turner, of Slough, had the beautiful seedling Pansies, named National, Blanche, Swansdown, and Euphemia, and five Pelargoniums. Messrs. Henderson sent a nice light Fuchsia.

ROYAL SOUTH LONDON SOCIETY.—At the exhibition held on May 28th, in the Surrey Gardens, there was a newly-broke Tulip shown, named *Mr. Smith*. It is byblomen, of good substance, smooth edge, and pure bottom, and considered likely to prove an useful flower. A certificate of excellence was awarded for it, also for a *Rose Tulip*, named *Princess Helena*. The flower is larger than any other Rose Tulip; it is a pure flower, very prettily marked with pale rose, is considered a noble flower, and a valuable acquisition.

Miss Charteris Calceolaria was shown by Mr. Gaines. It is a rich cream colour, with a crimson blotch; it is a good round full flower.

Pansies.—The following were the best shown:—Duke of Norfolk, Almansor, Mrs. Beck, Sir R. Peel, Addison, Wonderful, Example, Duchess of Rutland, Sylvia, Bellona, Constellation, Androcles, Israëlii, Sambo, Supreme, Sir John Franklin, Aurora, Ophir, Rainbow, Zabdi, Masterpiece, and Optimus.

ROYAL HORTICULTURAL SOCIETY OF CORNWALL.—This admirably-managed and well-supported Society, held their first meeting for the present year on May 16th. The prizes were awarded as follows.—Ornamental Plant, in flower, not previously exhibited—*Abelia floribunda*: Bronze Medal, Mr. F. Passingham. Best Twelve Stove and Greenhouse Plants—*Azalea indica grandiflora*, *Aphelaxis spectabilis grandiflora*, *Pimelea Hendersoni*, *Azalea triumphans*, *Erica ventricosa incarnata*, *Eriostemon intermedium*, *Aphelaxis humilis*, *Euphorbia splendens*, *Begonia sanguinea*, *Acacia pulchella*, *Leschenaultia formosa*, *Gloxiana Teuchlerii*: Silver Medal, Mr. Passingham. 2d—*Epacris grandiflora*, *Sprengelia incarnata*, *Pimelea decussata*, *Leschenaultia biloba*, *Azalea triumphans*, *A. optima*, *Topœolum tricolorum*, *Vinca ocellata alba*, *Clerodendron squamatum*, *Chironia floribunda*, *Clematis Sieboldii*, and a fancy *Geranium*: Mr. R. Friend, gardener to Mrs. G. C. Fox. 3rd—*Euphorbia splendens*, *Clematis azurea grandiflora*, *Begonia floribunda*, *Epacris miniata*, *Gardenia florida*, *Zielya tricolor*, *Azalea alba*, *Erica Cavendishii*, *Chorozeia cordifolium*, *Oxalis floribunda*, *Azalea carminata*, *Corræa ventricosa*: Mr. G. N. Simmons. 4th—*Clerodendron splendens*, *C. affine*,

Leschenaultia grandiflora, *Epacris miniata*, *Vinca ocellata*, *Tropæolum tricolorum*, *Aphelexis sesamoides*, *Tetratheca verticillata*, *Erica florida*, *campanulata*, *Pimelea Nieppergiana*: Mr. Daubuz. Best six varieties of ditto—*Aphelexis purpurea macrantha*, *Epacris miniata*, a *Gompholobium*, *Leschenaultia formosa*, *Chorozema rotundifolium*, *Begonia alba coccinea*: Mr. F. Passingham. 2nd—*Tetratheca verticillata*, *Ardisia crenulata*, *Erica ventricosa superba*, *Pimelea Hendersoni*, *Aphelexis purpurea macrantha*, *Azalea triumphans*: Mr. R. Friend. 3rd—*Eutaxia myrtifolia*, *Leschenaultia biloba*, *Adenandra speciosa*, *Clerodendron affine*, an Everlasting, *Eriostemon intermedium*: Mr. Daubuz. 4th—*Pimelea hispida*, *Tropæolum tricolorum*, *Azalea indica alba*, *Epacris grandiflora*, *Epiphyllum Jenkinsoni*, *Nerium Oleander*: Rev. T. Phillpotts. Best specimen of Stove Plant—*Torenia Asiatica*: Rev. T. Phillpotts. 2nd—*Clerodendron affine*: Mr. Daubuz. 3rd—*Euphorbia splendens*: Mr. F. Passingham. Best Greenhouse specimen—*Aphelexis purpurea grandiflora*: Mr. F. Passingham. 2nd—*Pimelea Hendersoni*: Mr. R. Friend. 3rd—*Chorozema varium*: Rev. T. Phillpotts. Best Six Orchids, in flower—*Phaius Wallichii*, *Calanthe veratrifolia*, *Oncidium flexuosum*, and two *Lycastes*: Rev. T. Phillpotts. 2nd—*Cattleya Mossiæ*, *Calanthe veratrifolia*, *Oncidium leucochilum*, and *O. pumilum*: Mr. G. N. Simmons. 3rd—*Lycaste cruenta*, *Maxillaria pubescens*, *Cattleya Forbesii*: Mr. W. M. Tweedy. Best specimen—*Cattleya Mossiæ*: Rev. T. Phillpotts. 2nd—*Calanthe veratrifolia*: Mr. W. M. Tweedy. Best Six Gloxinias, *Gesneras*, *Achimenes*, or *Sinningias*—*Teuchlerii*, *Fyfiانا*, *Maxima*, *Sinningia guttata*, *Achimenes grandiflora*, *A. picta*: Mr. Daubuz. 2nd—*Gesnera Douglassii*, *G. Suttonii*, *G. bulbosa*, *Achimenes picta*, *A. grandiflora*: Rev. T. Phillpotts. Best Six Bulbous Plants, in flower: Mr. R. Friend. Best Six Geraniums—*Orion*, *Beck's Rosy Circle*, *Arnal's Virgin Queen*, *Forget-me-not*, *Marmion*, and a Seedling: Mr. R. Friend. 2nd—*Gulielma*, *Field Marshal*, *Gaines' Melceager*, *Beeswing*, *Cruentum*, *Forster's Constance*: Mr. Daubuz. Best Six Fancies (*Queen Victoria*, *Anais*, *Lady Rivers*, *La Belle Africana*, *Unique*, *Sidonic*): Mr. F. Passingham. Best Six Heaths—*Bowieana*, *Cavendishii*, *ventricosa conspicua*, *v. purpurescens*, *v. fasciculata rosea*, *v. superba*: Mr. F. Passingham. 2nd—*Elegans*, *perspicua nana*, *Loddigesii*, *dilecta*, and *sauveolens*: Mr. Daubuz. Best Specimen Heath—*Erica coccinea minor*: Rev. T. Phillpotts. 2nd—*Ventricosa blanda*: Mr. F. Passingham. Best Collection of Azaleas, *Rhododendrons*, or *Kalmias*—*Azalea indica grandiflora*, *Herbertii*, *triumphans*, *optima*, *splendida*, *Broughtonii*: Mr. F. Passingham. 2nd—*Indica alba*, *Exquisite*, *Rosea*, *Duke of Devonshire*, *Knight's optima*, *Rosea punctata*: Mr. Daubuz. Best specimen of ditto—*variegata*: Rev. T. Phillpotts. 2nd—*Optima*: Mr. F. Passingham. Best collection of *Cinerarias*—*Cerito*, *Annie*, *Miss Harriet*, *Climax*, *Purpurea*, *Princess Royal*: Mr. F. Passingham. 2nd—Six Seedlings: Mr. W. M. Tweedy. Best specimen of ditto—*Cerito*: Mr. F. Passingham. Best collection of *Calceolarias*—*Elegans*, *Eclipse*, *Lucy Neal*, *Rebecca*, *Alboni*: Mr. Daubuz. 2nd—*Delicata*, *Queen of Beauties*, *Captivation*, *Resplendens*, *Standard*, *Sir C. Napier*: Mr. F. Passingham.

Best specimen of ditto—Seedling: Mr. Daubuz. Best collection of Heartsease—Zabdi, Sylph, Prince of Orange, Optimus, Cornish Lass, Rainbow, Caroline, Polynices, Climax, Duchess of Rutland, Supreme, Marchioness of Lothian, Magnificent, Attraction, Superb, Juventa: Mr. W. Woolcock. 2nd—Ophir, Lady Sale, Taglioni, Lucy Neal, Splendid, Blue Perfection, Great Western, Caroline, Oats's Seedling, Climax, Malvern, Punch: Rev. Canon Rogers. Best Six Roses in pots—Baronne Prevost, Niphetos, Duchess of Sutherland, Highclere Seedling, Madame Laffay, La Belle Allamaude: Mr. F. Passingham. 2nd—Souvenir de la Malmaison, Géant des Batailles, &c.: Mr. R. Friend. 3rd—Triumphant, Géant des Batailles, Madame Desprez, General Lamoriciere, Admiral Reynolds — *West Briton*.

HORTICULTURAL SOCIETY ROOMS, 21 REGENT STREET. *June 17.*—Mr. May, gardener to E. Goodhart, Esq., Langley Park, Beckenham, Kent, sent a beautiful purple and white striped Phlox, called *Mayii variegata*. It is one of the prettiest we have seen of the many seedlings obtained from the Drummond Phlox, crossed with other kinds; and if constant, will, no doubt, be an acquisition. Mr. Mackintosh, nurseryman, Maida-vale, Edgeware-road, furnished a small example of a white Chrysanthemum in blossom, in order to prove that this favourite autumnal flower may be made to bloom in the middle of summer. It was raised from a cutting put in in December last, and had been grown on a greenhouse shelf near the glass. From the garden of the Society came the scarce *Brassavola Digbyana*, with a broad fringed lip; *Cyrtochilum stellatum*, having bright green healthy leaves, a rare occurrence with this plant; *Cyrtoceras reflexum*, *Franeiscea Hopeana*, a profusely-flowered medium-sized bush of *Pimelea decussata*; *Dillwynia elavata*, one of the handsomest of the genus; an *Epacris*, two Cape Heaths, eight varieties of *Achimenes*, an Everlasting, and the Chinese Indigo plant, (*Isatis indigotica*).

CRASSULA COCCINEA AND VERSICOLOR.—A market gardener near London, who supplies Covent Garden Market with these very showy flowering plants, has twenty thousand of them coming into bloom. When in perfection they are highly ornamental, and their thick waxy-like flowers are strikingly beautiful; they continue, too, a long time in bloom. To ornament a greenhouse in summer, or sitting-room, they are charming things, and diffuse an agreeable fragrance. The cost per plant is but a trifle. We have seen beds of the scarlet in the flower-garden, and they had a fine appearance.

IRIS SUSIANA (DEATH'S-HEAD IRIS).—How rarely this is well grown in this country, and not often flowered. I saw, a few days since, in the gardens of the Luxembourg, at Paris, large patches of it grown in a cold frame; there were ten or twelve flowers (half as large again as any I ever saw in this country) open at the same time; the plants appeared to be growing in very light soil. I shall try this mode of cultivating this interesting plant, and recommend your readers to do the same. The roots are to be bought with the other Dutch roots in the autumn; but I suspect that those usually purchased have been too long out of the ground, or have been taken up too early; and that this is probably the reason they do not often succeed.—*Juvenis*.

ROSES.—The vigour of the bloom is very much promoted by giving the roots a good watering once a-week with liquid-manure. The drainage from a farm or stable-yard is just the article to apply. Where it is strong, it should be diluted with an equal quantity of rain or pond-water, which is better than well-water; the latter should be pumped into a tank or shallow reservoir, to be exposed for a day or two before using. The application of liquid-manure to Carnations, Picotees, as well as other soft-wooded pot plants, or grown in beds, borders, &c., is always much benefited thereby. It must not be poured upon the foliage. *Liquid-manure* is easily provided by putting a due portion of perfectly-decomposed manure into *soft* water, and stirring it up occasionally. Use it when the sediment is settled.

VICTORIA REGIA. ROYAL WATER LILY.—In a recent number we noticed this noble plant, and suggested the propriety of attempts to grow it out of doors, as well as attempts at the production of hybrids between it and the common Water Lilies. We now have to remark that Messrs. Weeks and Co., of Chelsea, have attempted to cultivate the Royal Water Lily in an *open heated* pond. The plant flourishes admirably; the leaves (five of them) are about four feet across, and when we visited the place, on the 17th of May, its first flower was fully expanded, and another bud nearly so. Up to a day or two before the flower expanded, the plant had been protected in some degree by a frame, the sides of which dipped into the water. No doubt need be entertained of its ultimate success, and where there is the advantage of the warm reservoirs, &c., in connexion with the engines worked in the large factories of Yorkshire, Lancashire, &c., the plant may be cultivated most successfully; and where a basin, or tank, can be formed near to a stove or plant-house, heated by steam or hot water, it will be an easy matter to have a pipe, or more, pass across the same, at a suitable depth in the water, and, thus heated, would answer satisfactorily.

SALVIA PATENS AND SALVIA PATENS ALBA.—My flower-garden is sheltered from the west, north, and east winds. Last year I had in it two beds of the above plants. One was of a circular form, and the other star-shaped, with a circular centre. I had them planted in the following manner, and as they are of similar growth, they grouped well together. The centre portion of the circular bed was planted with the white-flowered, and a broad margin around it with the blue. The centre portion of the star-shaped bed was planted with the white, and the angular parts with the blue. The effect was most strikingly pretty, and wherever adopted will be much admired. Being protected from strong wind, the flowers did not suffer, but displayed their beauties fully.—*Clericus*.

STOKE NEWINGTON CHRYSANTHEMUM SOCIETY.—Mr. Taylor recently delivered a lecture on the culture of the Chrysanthemum; and he observed, “I prefer propagating as soon after the bloom is over as I can get cuttings, as by striking early it enables the young plant to store up sufficient matter to meet the demands in the growing season, for in my opinion it cannot be grown too vigorous. I prefer the strongest suckers, with a portion of roots to each.” In a three-inch pot, with a

compost of loam and sand, he puts three suckers. He places them in a cold frame to keep them stiff, and never strikes them in heat, as they draw up weakly. In April pots off singly into six-inch pots, in one-third yellow loam, one-third rotten turf, and one-third well-rotted manure, adding sufficient sand or grit to make the compost porous. Places them in the open air, where they are protected from east winds, rather wide a part, turning them often to prevent the roots extending into the soil, and to have the plants of uniform growth. At the end of June, or early in July, gives the last repotting into very large pots, having plenty of drainage, and the compost in a rough state. Great care is paid to give them a due proportion of water, never to suffer them to wither, or the blossoms would be deformed, but avoids soddening the soil. The first week in August he begins to supply liquid manure once a-week, increasing its strength as the plant advances, but gives up the liquid as soon as the flowers begin to expand. Constant attention in the early stage of the plants is essential to success. He never stops the main stem, and pinches off all side shoots. As soon as the blooming stems become visible he removes all but three or four, and only one flower-bud is allowed to remain on each stem; prefers the centre bud if it be round and perfect.

TUBEROSSES.—The best soil for these is light sandy earth, mixed with one-third part very rotten cow-dung. About the middle of April prepare your bed by clearing it out to the depth of three feet, and fill it nearly to the top with fresh stable dung that has been cast into a heap to heat a fortnight before, treading it firmly. Upon this lay eighteen inches in depth of compost, sloping it to the south. In a day or two after, plant your roots five inches distant from each other, just covering the tubers with earth. Shut up the bed at night, especially if frosty; or if in the open air cover it with a double mat till the leaves appear; but give little or no water, and protect it from heavy rains. When the leaves have grown about an inch long, add a little compost to the surface. If the season prove dry, your bed will now require watering, and towards the end of June and in July, when the leaves are in full vigour, very copiously; from this period to the beginning of winter nothing more is necessary. About the first week in December, thatch the bed over with dry straw, if in the open air; and about the middle of February, if not prevented by frost, take up the roots, preserving the fibres, and pack them in very dry sand in cellars till April, when they must be replanted as before. The taking up disposes them to form their flower stems earlier. Offsets will by this time have made their appearance round each root, and must be removed. This second year some of the largest roots will probably flower, and if early, they may be allowed to blossom in the open air; but if later than July, they should be potted and placed under glass. Such is an outline of the general management of Tuberoses in the open air, or in a frame.—*Gardeners' Chronicle.*

CANTUAS.—It appears there has existed some confusion relative to the proper names of the plants known in this country as *C. dependens*, *buxifolia*, and *bicolor*. Messrs. Veitch, of Exeter, introduced from their collector in Peru the plant they are now selling under the name

of *C. dependens*, and up to the day of their commencing disposing of it they had the sole possession of the stock. The same plant, however, has been called in our own country, by some persons, *C. buxifolia*. For some time there has been a *Cantua buxifolia* existing in the continental nurseries, and hence the conclusion by many was that they were one and the same species. It, however, now turns out that the species on the Continent were fer to is the *Cantua bicolor* of our British nurseries, and is a very different plant from Messrs. Veitch's very splendid species. (*Editor.*)

TEN THOUSAND FRENCH TULIPS.—It was advertised that this number of superb Tulips were to be seen in bloom in the nursery of Mr. Adams at Kensington. We saw the display, but did not observe a single flower worth a place in an English florist's Tulip-bed. There were only Roses and Byblomens, no Bizarres. All the flowers we examined had bad, dirty bottoms. We went to the exhibition of them, with high expectations, but got sadly disappointed. We are astonished that our brother florists of France should grow such indifferent flowers, whilst they might have gems of the highest character.

THE GLYCINE SINENSIS, AND WHERE IT IS FOUND WILD.—In the end of May, when the Overland Mail puts these notes into your hands, the noble Glycine, or *Wistaria chinensis*, will be in full bloom at Chiswick, and in many other English gardens. It was introduced, as your readers know, from a garden near Canton—that of a Chinese merchant, named Consequa; but it is not indigenous to the south of China, and is rarely seen in perfection there. Indeed, the simple fact of its being perfectly hardy in England shows at once that it has a more northern origin.

Before the last war with China, foreigners were confined to narrow limits about Canton and Macao, where they had no means of knowing anything of the more hardy plants of the north, which they sometimes met with in gardens, and introduced to Europe. Now, however, we can prosecute our botanical researches in a country which is nearly a thousand miles further to the north-east, and at many other places which lie along that line of coast. The island of Koo-lung-sû, for example, near Amoy, was taken by our troops during the war, and occupied by them for some years, according to treaty, until a portion of the ransom money was paid. It seemed to have been a place of residence to many of the mandarins and principal merchants in peaceful times, and boasted of its gardens and pretty fish ponds. When I first saw these gardens they were mostly in a ruinous condition, and everywhere exhibited the fatal effects of war. Many beautiful plants, however, still continued to grow and scramble about over the ruined walls. Captain Hall, of the Madras army, who was stationed there for some time, was very fond of botany, and took great pleasure in pointing out to me all the plants which he met with in his rambles. "I have good news for you," said he one morning, when I met him; "come with me and I shall show you the most beautiful plant on the island, which I have just discovered. It is a creeper, it produces fine long racemes of lilac flowers before it puts forth its leaves, and it is deliciously fragrant." What could it be? was it new? would it produce perfect seeds? or could young plants be procured to send home? were questions which rapidly suggested them-

selves. It is only the enthusiastic botanical collector who can form an idea of the amount of excitement and pleasure there is when one fancies he is on the eve of finding a new and beautiful flower. Captain Hall led the way, and we soon reached the spot where the plant grew. There had been no exaggeration in his description; there it was, covering an old wall, and scrambling up the branches of the adjoining trees; it bore long racemes of pea-shaped flowers, and scented the surrounding air with its odours. Need I say it was the beautiful *Glycine*. But it was not found in a wild state even at Amoy, and had evidently been brought from more northern latitudes.

When I reached Chusan, in latitude 30° north, I found a remarkable change in the appearance of the vegetation. Tropical forms had entirely disappeared, or were rarely met with. Although the summers were as warm, or even warmer, than they were in the south, yet the winters were nearly as cold as those we have in England. On this ground, and all over the provinces of Chekiang and Kiangnau, the *Glycine* seemed to be at home. It grew wild on every hill-side, scrambling about in the hedges by the footpaths, and hanging over and dipping its leaves and flowers into the canals and mountain streams.

But by far the most beautiful effect is produced when it attaches itself to the stems and branches of other trees. This is not unfrequent in nature, and is often copied by the Chinese and introduced into their gardens. You can scarcely imagine anything more gorgeous or beautiful than a large plant of this kind in full bloom. Its main and larger branches are entwined round every branch and branchlet of the tree, and from them hundreds of small ones hang down until they nearly touch the ground. The whole of the branches are covered with flower-buds, which a day or two of warm weather brings rapidly forward into bloom. To form an idea of the effect produced by these thousands of long lilac racemes, you must imagine, if you can, a floral cascade, or a Weeping Willow covered with the flowers of the *Glycine*. There are some large specimens of this kind on the island of Chusan. One, in particular, was most striking. Not content with monopolising one tree, it had scrambled over a whole clump, and formed a pretty arbour underneath. When I saw it last it was in full flower, and had a most charming appearance.

The Chinese are fond of growing the *Glycine* on trellis-work, and forming long covered walks in the garden, or arbours and porticos in front of their doors. In a former letter I noticed a large specimen of this description in the garden of the British consulate at Shanghae. There is another remarkable one in the garden of a mandarin at Ningpo; growing in company with it is the fine new variety introduced lately by the Horticultural Society of London, and published in the *Journal of the Society*. In foliage and general habit the two kinds are nearly alike, but the new one bears long racemes of pure white flowers.—*Gardeners' Chronicle, R. F.*

[In the garden belonging to W. O. Hunt, Esq., of Stratford-on-Avon, there is a plant now (June, 1851,) which has upwards of 25,000 racemes of flowers.]

CULTURE OF IXORAS.—They require to be cultivated in a warm and

moist stove; and this is not only necessary in order to produce luxuriant growth, but also to prevent the plants from becoming infested with insects, to which several of them are very commonly subject, and which often cannot be got rid of without making the plants look very unsightly and unhealthy. Pits heated with fermenting stable-litter or leaves, are well-suited to the growth of such plants as *Ixora*; the confined and *moist* atmosphere encourages a vigorous growth, and this, with the vapour arising from fermenting matter, are great preventatives of the breeding of insects. The soil may consist of about one-half light loam and peat, or leaf-mould, with a small quantity of sharp sand, and care taken to drain it well, and in shifting, not to overpot it.—*J. S. Royal Gardens of Kew.*

RHODODENDRON ARBOREUM.—In a recent number I perceive a north countryman asks whether this *Rhododendron*, a native of Nepal, blooms in any other part of England besides Cornwall. I have the pleasure to state that at Dolauethy in Carmarthen-shire there is one tree which is nine feet high, and as much across, which has stood many years uninjured, without any protection, and each season it has bloomed profusely. This season it is not so profuse, but it has had two hundred and thirty fine heads of its bright crimson flowers, which produced a splendid show.—*An under Gardener.*

THE ARBORETUM AT IPSWICH.—Considerable progress has been made with this undertaking since the commencement, a large body of men having been constantly employed laying out and planting the grounds, agreeably to the plans prepared by Mr. Pontey, and the whole has been enclosed with a substantial large fencing. The bridle-way leading from Fonnereau-street to the mill at the top of Bolon divides the enclosure into two unequal portions, which, from their respective elevations, may be appropriately denominated the upper and lower gardens. The upper garden is the one which it is proposed to throw open to the public in the evening; the lower will be exclusively reserved for the subscribers. The entrance to the upper garden will be by a gateway in the Henley-road, almost immediately facing the site of the new Grammar School, from which a broad walk will conduct in a direct line to the opposite side, intersecting at both ends another walk, which, by a somewhat devious course, makes the entire circuit of the garden. The surface has been judiciously diversified by the formation of mounds, from whose summits can be obtained a succession of delightful views of the surrounding country, including the beautiful river Orwell. To those who desire a warmer and more sheltered promenade, the lower garden will be highly acceptable, as it is completely embosomed in a valley where no rude winds can scarcely enter. A path of moderate width also encircles this garden, on one side rising into a natural terrace, and on the other skirting the park palings. In the lowest corner of the valley a sheet of ornamental water is in the course of being introduced, by an extension of the lake on the adjacent portion of the park known as the "wilderness." The entrance gate will be placed in Fonnereau-street, by the side of the bridle-way, and the path into the garden will pass under a row of fine old trees. The bridle-way is pierced by two brick tunnels, at con-

venient distances, which, beside giving direct communication between the gardens, afford a ready means of varying the walks. Most of the planting has been accomplished, the season for which has been extremely favourable; the walks are all laid down and gravelled, and the mounds formed; but in the upper garden none of the turf has yet been laid. When completed, the Arboretum will certainly be a great acquisition to the town, and will, no doubt, become a favourite resort of the inhabitants.

PERENNIALS PROPAGATE BY SLIPS AND CUTTINGS.—That is, herbaceous plants; and the difference between slips and cuttings is, that slips are side pieces of any plant drawn out, or cut out, with a few roots to them. There are scores of border plants that can be increased in the early part of summer from these slips, without at all injuring the mother plants. All they require is to be planted in some light soil, in a shaded place, away from the sun, and to be watered from time to time as the weather tells. Cuttings of such border plants as are scarce should have a hand-glass placed over them, on a shady border, as without it the dry winds would be apt to wither them, now that they are as fresh and succulent as hothouse plants.—A. Z.

WAX FLOWERS.—Amongst the numerous specimens of artistical ingenuity and industry which the Great Exhibition has brought into notice, there is none more elegant or interesting than the wax flowers, of which there are several exhibitors. It will be readily admitted that much may be done in producing effect to the eye by the tasteful display of a splendid bouquet of these flowers in an elegant case. Besides many others, those shown by Mrs. Temple are very fine, being correct imitations of nature. The case contains a plant of the splendid *Amherstia nobilis* (one of the rarest plants in Europe); the orchids from the roof are *Stauhopeas*; the pots contain *Epidendrum Stamfordianum*, *Cattleya Pinelli*, *Bilbergia Morelliana*, *Anguloa*, *Cattleya candida*, *Cymbidium eberneum*, and others equally rare. The climbers are all choice, comprising *Dipladenia*, *Hoya campanulata*, *Clematis smilacifolia*, the splendid *Gloriosa superba*, and varieties of *Passiflora*. There are also a few native flowers in the vases. Outside the case are two shades—one a hop-pole, the other a fine specimen of *Bignonia*. Other splendid specimens of Mrs. Temple's work may be seen at the New Bazaar in Regent-street; some bouquets, in large glass cases, being marked as high as forty-five guineas.

SEEDLING FLOWERS AT THE BOTANICAL SOCIETY, REGENT'S PARK.—We have never seen such a display of new *Pelargoniums* as were at the Royal Botanical Society's Show on the 11th inst.; there must have been scores, if not hundreds. In the fancy class, which we do not judge by such rigid rules as the ordinary show flowers, there was an immense variety. The most remarkable were Ayres' *Advancer*, a fine deep colour, good form, and plenty of substance, received a certificate, and deserved it; *Advancer* is a good name, for it is better than *Formosa*. His *Gipsy Queen*, pretty, spotted, and crumply, was not so good; it had some sort of distinction, called a third prize. Ambrose's *Superba*, a brownish-red, with rosy under petals, was very pretty, and in the present state of fancy varieties deserved a certificate,

which was awarded. His *Captivation*, which also had a certificate, did not deserve it; there was no compactness; it was, moreover, a dull colour; and *Triumphant*, which received a prize for brilliant colour, was loose and crumpled; however, the recommendation of the judges was especially for colour, which was scarlet-rose. In the show varieties, *Exhibitor*, which is a very noble flower, with good trusses, plenty of substance, of better than average form, and very striking, had no mark of distinction, perhaps from a fancied likeness to *Emily*, but it deserved a certificate much more than some which had one. *Ambassador*, a good, showy, useful variety, a little too much like some we have, was noticeable. Hoyle's *Van Tromp*, rich purple-lake, was very showy, though somewhat loosely shown. *Ganymede* was a good deal like many we possess. *Colonel of the Buffs* was very bright and striking. *Magnet*, already mentioned more than once, had what was called on the card a first prize. *Eliza*, a bright scarlet-pink, had a third prize; and *Herald* is pretty, but crumpled. The seedlings were altogether striking, and in one tent, which was crowded beyond measure; in fact, it was almost fighting work to get to the table. We will not guarantee that we saw all the awards.—*G. Glenny.* (*Cottage Gardener.*)

RHODODENDRONS AND AZALEAS.—Mr. Hosca Waterer's exhibition of Rhododendrons and Azaleas in the Horticultural Gardens at Chiswick is a most magnificent display of floral beauty, and the entire number of plants are perfectly hardy. The skill of the hybridizer has wrought wonders in blending the rich colour of the Indian species with the hardy constitution of the American, and the results are the numberless varieties of tint in almost every shade from pure white to the richest crimson, and from pure lilac to the richest purple, all possessing a sufficient hardness of constitution to withstand the winters of our climate. A more charming addition to a nobleman's flower-garden than a collection of the best varieties of Rhododendrons could hardly be suggested, and in every place, however small, some appropriate situation might be found for their cultivation. Among the many magnificent sorts now in bloom in Mr. Waterer's exhibition, the following are particularly worthy of notice:—Rembrandt, rosy-pink, flowers individually large and fine; Rubens, rosy-pink, trusses under canvas, somewhat loose; hyacinthæflorum, a small lilac-blossomed kind, quite a bouquet of flowers; atrosanguineum, fine crimson; densiflorum, plum-colour; Currieannum, large flowers, and a good trusser; Achimedes, rose; Titian, glowing crimson, flowers arranged in compact conical heads; ccelestinum, delicate lilac; catawbiense grandiflorum, lilac shaded with rose; and Everstianum, a good old sort. The best white is certainly Mont Blanc. Among Azaleas, pontica princeps—yellow slightly suffused with orange—was by far the most conspicuous. Of deep-coloured kinds, *A. coccinea* major is excellent.

RAISING AND TREATMENT OF SEEDLING NARCISSUS.—Edward Leeds, Esq., having paid considerable attention to this process, the following is the particular treatment pursued:—

“To obtain good varieties, it is needful the previous season to plant the roots of some of each kind in pots, and to bring them into the greenhouse in spring to flower, so as to obtain pollen of the late flower-

ing kinds to cross with those which otherwise would have passed away before these were in flower. With me, the plants always seed best in the open ground. When the seed vessels begin to swell, the flower stems should be carefully tied up and watched until the seeds turn black. I do not wait until the seed-vessel bursts, as many seeds in that case fall to the ground and are lost, but take them off when mature with a portion of the stem, which I insert in the earth in a seed-pot or pan provided for their reception. I place them in a north aspect, and the seeds in due season are shed as it were naturally into the pot of earth. I allow the seeds to harden for a month on the surface before covering them with half an inch depth of sandy soil. The soil should be two-thirds pure loam, and one-third sharp sand; the drainage composed of rough and turfy soil. In October, I plunge the seed-pots in a cold frame facing the south, and the young plants begin to appear in December and throughout the winter according to their kinds and the mildness of the weather. It is needful, in their earliest stages, to look well after slugs and snails.

“The seedlings should be protected from frosts, but should have abundance of air, or they will soon draw. As soon as they will stand exposure, plunge the pots under some sheltered wall or hedge, and they will form their first bulbs. Let them become dry in summer, and, if it be a wet season, turn the pots on their sides until the time for them to grow again. Let them remain in the seed-pots, and topdress them with fresh loamy soil. When the bulbs are two years old, prepare, in an open airy situation, a bed of good loam mixed with sharp sand; prepare the bed as for Tulips, &c., covering the entire surface with sand, in which the bulbs should be embedded; plant the roots in rows three inches apart, and each root one inch apart in the row. They will stand three years in this bed, when they may be finally removed into a fresh bed of similar soil to flower: a few will flower the fifth year, but the greater portion not until the seventh. I do not take up the flowering roots oftener than every third season, but top-dress the beds every autumn. A little thoroughly-decayed hotbed manure, mixed with the surface soil, aids them to produce fine flowers, but it must be well decomposed or it will do harm. The beds should be well drained, the prepared soil at least two feet deep, and the situation sheltered from north and east winds, which do much damage to the flowers.”—*Magazine of Botany*.

LONDON FLORAL INSTITUTIONS.—The *Horticultural Society's Garden at Chiswick* is annually receiving considerable improvements, both in the houses, grounds, and management of its contents; and a visit alone will confirm the advance that has been made the last and present year. Facilities, too, for admission to the gardens, and a much less expense is now required for the payment, on being elected a Fellow, and subsequently, too. There are also improved arrangements for exhibitors at the general shows, and the fact of their approval by exhibitors has been testified by the productions and commendations of this season's exhibitions. The collective specimens shown this season have been much in advance of former years, and to this fine display, there is, this season, the magnificent

one of Mr. Waterer's Azaleas and Rhododendrons, which are still in bloom.

The *Royal Botanic Society's Garden* in the *Regent's Park* now has a plantation of Roses, Messrs. Lane, Paul, and Rivers having contributed collections to be bloomed there, after the manner of the Azaleas and Rhododendrons, each having the management of their own collection, and, if found necessary, they are to be shaded when in bloom. There is, as usual, a fine display with the Rhododendrons and Azaleas.

The *Royal South London Floricultural Society's* exhibitions are very much improved during the last two seasons, and in what are termed *florists' flowers* they are greatly in advance of the Horticultural and Royal Botanic exhibitions.

The formation of the *National Floricultural Society*, for testing the merits of hybrid flowers, &c., is an useful acquisition, and its regulations are much preferable to any that have preceded it with which we have been acquainted. The Society has not calculated upon pleasing everybody, and already there are fault-finders, who direct attention to glaring defects in certain flowers that have had high encomiums given to them; we know of none, and think such remarks are uncalled for. It by no means follows, that no flower is of *excellent quality* because it has not been presented at this Society's meeting and had such approval, but we think none that are of an *inferior* character will have the recommendation of the censors.

AURICULAS.—The following new seedlings are said to be of first-rate excellence, and ought to be in every select collection:—

Beeston's Apollo.—Ground colour a very rich dark, and regularly edged with a lively green. The proportions are remarkably correct and handsome. *Lightbody's Richard Headly*.—A grey-edged variety, the ground colour is *black*, and the paste good; very superb.

POLYANTHUS.—*Wheatley's Lord John*.—Flower large, very dark ground, rich yellow edging, and a perfect circular centre. A new and superb variety, deserving a place in every collection of these lovely flowers. *Bellis perennis plena*.—The new German and Belgian varieties, comprising 130 named kinds; many of them exquisitely neat and handsome, are admirably adapted for edgings inside of flower beds, or to form an edging alone, or grown in patches in the borders, or in pots. If one bed had an edging of crimson, another of white, rose, scarlet, mottled, and other striking shades of colours, they would have a pretty effect. And their perpetual blooming increases their merit.

NEWLY BROKE TULIPS.—When seedling Tulips bloom the first time, the far greater part come a *self colour*, excepting the base, which is either yellow or white. They are said to have *broke*, when instead of coming a self-colour, they come *with stripes*. Mr. Goldham, of Islington, is denominated the father of the Tulip fancy, and this season many of his seedlings have broken, and several of them possess properties of first-rate excellence, exquisitely beautiful, and most strikingly distinct from any others. *Mr. Smith*, a newly-broke seedling, was shown at the Surrey Gardens. It is a Byblomen, possessing very good properties. Another, named *Princess Helena*, a Rose.

ERYTHRINA CRISTA GALLII.—This noble blooming plant is worth every attention that can be given to its culture. I have seen but few cultivators of it who grow it as it is capable of. There are many plants, which to cultivate aright require to be shifted once or more during the growing season, and it is necessary to pot off into a small sized pot at first. Now this kind of treatment with the *Erythrina crista-galli* injures it, tending to check the growth of the spikes of flowers, and they are thus cramped and stunted. The method I pursue is: I cut down the stems a little while after the bloom is over, and gradually withhold water, and but just keep it from dust, giving it a season of rest till February in a greenhouse. At this period I place it in a bark pit, and cause the buds to push; I then repot it into a *much larger* pot than it grew in the previous season, and in this it blossom. I give a liberal drainage, and the compost is of equal portions of good turfy loam, turfy peat, and well-rotted cow dung and leaf mould, with a liberal sprinkling of bits of charcoal, having them well chopped together. During the growing period I water well once a-week with liquid manure, and the general supply is soft water from a shallow pond, drawn off into a tank in the stove. I have had a plant thus treated, which grew nine feet in one season, and half its length was adorned with its gorgeous flowers. The best method of increasing it is when the young shoots are about three inches long. I cut away all superfluous ones, and cut close to their origin; such being inserted in equal parts of loam and silver sand, and having a gentle bottom heat, soon strike roots.—*E. Barker, Winstor Gardens.*

NEMOPHILA MACULATA.—We lately saw several rows of this very beautiful flowering annual in *great vigour*, and profusely blooming in the garden of Mr. Lockhart, at Parson's-green. The soil is a rich strong loam, and the seed was sown thinly in rows as early as February. Last year we saw attempts to have large beds of it in the Chiswick Gardens and at other places, but in consequence of having been raised in a higher temperature, as a hot-bed, &c., and afterwards planted out in the beds, it failed in every instance we saw attempted. Treated, however, as our old common annuals are, and sown early, it flourishes admirably, and is one of the loveliest plants. We lately saw a star-shaped bed, filled in the following manner, which had a charming appearance. The centre circle was filled with Scarlet Verbenas, and the angles of the star had alternately the *N. maculata* and *N. insignis*. All were in fine bloom, and had a striking effect. Mr. Beaton recommends having a bed of the two species mixed, two of the *maculata* to one of the blue *insignis*, and so disposed at equal distances. The mixture of the flowers, he states, has a very pretty appearance.

NIGHT-BLOWING CEREUS (C. GRANDIFLORUS).—This delightful plant, which has for many years past bloomed profusely here, was last evening quite an object of admiration. No less than seventeen fully-expanded blossoms were open on it at one time. The flowers, which are very fragrant, began to expand about six o'clock P.M., and by eight o'clock they were fully developed. The plant occupies a pot fourteen inches in diameter, and has produced annually between twenty and thirty

flowers for these last five years.—*Joseph Nickson, Gardener to Viscount Middleton, Godalming.*

CEANOTHUSES.—Among the many recent introductions of hardy plants into our gardens, there are none perhaps more effective or better adapted for covering walls than the Ceanothuses. We have here (Osborne) fine specimens of the following, which were planted on a south wall in the spring of 1848, and withstood the severity of the winter of 1849 without protection uninjured; viz., *C. dentatus*, *C. papillosus*, *C. rigidus*, *C. cuneatus*, and *C. sp. California*. I beg to offer a few remarks on the mode of culture as practised here. 1st. *C. dentatus*: I consider this to be the most beautiful of them all; the extreme neatness of its foliage, the beauty and profusion of its flowers, cannot fail to render it an object of universal admiration. Our plant, which is six feet nine inches in height, is now coming into bloom; it is trained on the horizontal system; the extent of its branches at the bottom is nine feet six inches, gradually decreasing to the point of the main stem. After it has done flowering, we shorten back the secondary branches to within an inch or so of the main laterals; this we repeat two or three times in the course of the season, according to the growth they make. It may be well to mention that the last pruning must not be performed too late, as on these branches we depend for the principal supply of flowers in the following season. This plant matured seeds last season, which were sown early this spring, and the plants are now coming through the soil. 2nd. *C. papillosus*: I consider this next in superiority; it will endure similar treatment to the former, but it is more vigorous in its growth—a great acquisition in a wall plant. Our specimen, which is just coming into bloom, is nine feet in height and ten feet in extent of branches at the bottom, gradually diminishing to the summit. Seeds of this also ripened last year, and are in the same stage as those just mentioned. 3rd. *C. sp. from California*: This is more vigorous in its growth than *papillosus*; it produces laterals freely, but not secondary branches. Our plant, which is thirteen feet in height and eleven feet in extent of branches at the bottom, has not flowered with us yet. 4th. *C. rigidus*: This is a charming species. Our plant, which is six feet nine inches in height, and in extent of branches eight feet six inches, has been a dense mass of bloom, the beauty of which is now past. It does not produce laterals so freely as the other species, nor does it show any disposition to produce seeds, though it has flowered two seasons. 5th. *C. cuneatus*: This has not flowered with us at present, consequently we cannot say much respecting it, but its appearance is very promising. This plant is seven feet in height and eight feet in extent of branches at the bottom. In its growth it is similar to *rigidus* and *sp. from California*.—*C. Winchester, Osborne Gardens.*

REMARKS ON DIAGRAMS OF CARNATIONS, &c.—In reply to the remarks of “Fairplay,” which appeared in your April Number, I have to request the insertion of the following in your publication:—

I should not have troubled you or your readers with any explanation had your correspondent refrained from charging me with telling an

untruth; but I feel called upon, in vindication of my character for truth and honesty of purpose, to refute the calumny.

Your correspondent proceeds to misconstrue the words of my letter, and accuses me of finding fault with the work in which the diagrams appear, which I most positively deny: there is not a word about the merits or demerits of the work itself. I referred to the drawings and diagrams only. He then asserts that I have told an untruth, and states "But I shall not quibble on straws—the petals *are not of two different widths*; it is simply an untruth; [No doubt he meant only a miscalculation.—EDITOR.] but it would not alter the case." Those are his words, and I beg you will print them, with the italics, precisely as in his own article. Now let us see who has told an untruth.

Take the diagram of a perfect Carnation, as it is called. The upper guard petal in the plate is within a trifle (under or over) one and a half inches broad, at the junction with the two adjoining petals; the compasses being placed on the outer edge of the diagram at the points of junction. Of course this would not be the broadest part of the petal, if it could all be seen; but with this difficulty standing in my way, I can show to your readers who has told an untruth on this subject. The lower petal is the widest of the three other petals which imbricate and form the first tier; and although there is a perceptible difference in applying the compasses, between this and the two other imbricating petals (which, by the way, is of itself a refutation of the statement of your correspondent), I can afford to select the broadest for him, and at the broadest part shown it is only one inch and three-eighths. Now, Sir, I ask you candidly, whether I committed myself by telling an untruth, when I stated the petals on the same tier were of two widths? Observe, if the two petals could be separated from the rest, and measured at the broadest part of each, the difference would be considerably more.

But as your correspondent has made such a repetition of the excellency of the work entitled "The Properties of Flowers and Plants," he will have no objection, I presume, to my referring to that work (*particularly if he is related to the author*), although it should be found to disagree with the diagrams. The author states,—“there should not be less than five or six rows of petals laid regularly, and the flower should rise and form a good bold centre or crown; and in quantity should form half a ball.” “The petals should be stiff and slightly cupped.” And yet it is now asserted that neither seven tiers, or forty-two petals, or more if they could be obtained, would be too many! Perhaps not, if we had more “Professors of Dressing the Carnation and Picotee” than we have at present. A rosette, too, is now preferable it seems to “half a ball;” verily this is like G. G., or Glenny improving upon Glenny!

I had no intention of interfering with or alluding to the “Properties of Flowers and Plants” in my article in the Midland Florist, nor do I now think I did. What I referred to was, the different width of petals on the same tier in the diagrams, which are not published in that work, although your correspondent intimates they have been published and approved many years. I have a copy of the second edition, 1847, on

the cover of which is printed "The only authorized Edition." How am I to blame if the diagrams are not in this work? but even if they were published ten years ago, and by the very author of that work, I still maintain they are incorrectly drawn. I think the majority of Carnation growers would not only admit the correctness of my remarks on the diagrams generally, but also that they would agree with me that the amount of colouring shown in the Carnation is insufficient, the white ground predominating. Here again there is a marked difference between the diagram of a Carnation, and the author of "the Properties" idea of a perfect petal of a Carnation, published by him in the "Annals of Horticulture, 1847;" where the outer portions of the white ground do not rise to the top of the petal as in the diagram, consequently a flower composed of such petals would only show two stripes of white, and three of the coloured; or if the outside portions of the white were seen, they would be very narrow; in fact they would not be seen unless half as much more of each tier of petals, as shown in the diagram, were visible; but the diagram shows nearly double the quantity of white. Now let me ask the said author which is correct, the perfect petal in the "Annals of Horticulture, 1847," or the diagram in the "Gardeners' Magazine of Botany, 1850?" It is of no use saying they are from the same "model," as there is a manifest difference between them; and if the "model" is or is to be mechanically true, then I submit there should be no difference between such part of a petal as is visible when in its place in the perfect flower, and when it is shown separately.

Perhaps the aforesaid author will at the same time favour us with his reasons for omitting the proportions of colours for a perfect Carnation in his "Properties of Flowers and Plants," and state what is his present idea of perfection in that respect. I can further venture to say, that if it is in accordance with the diagram, it will not do for such youngsters as myself and many others, although we may be "half a century behind in our floral knowledge;" and, that your correspondent cannot find his boasted "hundreds of better florists than I ever can be," to admit that it is a correct standard; to this I challenge him, and will submit to the evidence being taken by circulars addressed to every individual grower that can be found in the kingdom by some indifferent person.—*Benj. Vialls. Derrigate, Northampton.*

THE BOTANIC GARDENS OF MADRID AND VALENCIA.—The garden at Madrid, founded in the second half of the past century by Charles III., a king who was fond of the arts and sciences, is the principal botanical institution in Spain: it has again revived, after being almost entirely neglected during a long series of years, and promises to become in time a garden of importance. This state of things is not much due to the Government, which does almost nothing for the garden, though belonging to the Royal domains, nor yet to its direction, but is owing to Professor Vincente Cutanda's indefatigable zeal in restoring the establishment, without being himself a professional botanist (for he was formerly a barrister); and he would be still better enabled to effect his object, if he had the entire direction of it. But this last is, unfortunately, not the case; neither he nor the two other professors have

any share in the direction, which belongs exclusively to the Geſe local del Museo nacional de Ciencias. The garden, with its botanical museum, forms part of the national museum just named, whose chief director is the celebrated zoologist, Professor Don Mariano de la Paz Graëlle, a Catalonian; and under whom an English gardener (Jardínero mayor) is placed. This person, who is said to know very little of his profession, enjoys nevertheless a much larger salary than any of the three professors attached to the garden. One of these is the above-mentioned Don Vincente Cutanda, professor of organology and physiology, and director of the botanical museum; another is Don Pascual Aseusio, professor of agriculture and inspector of the agronomical branch of the botanical museum; and the third is Don Jose Alonso y Quintanilla, professor of descriptive botany, who conducts also botanical excursions, as well as exercises in determining plants. Of these three gentlemen the first is a tolerably good botanist, well acquainted with the progress and literature of the science, and, although past forty years of age, is still full of youthful ardour and attachment to botany, and devoted to it from his youth from inclination.

The botanical museum is placed under the immediate direction of Cutanda. It comprises, besides the agronomical branch already alluded to, consisting of a library and a collection of models, woods, cerealia, and fruits—the botanical library, the herbariums, and the store of seeds. The library, which is well arranged, is seemingly complete as regards the older works, but it is poor in more recent publications. The seed-store is arranged according to the Linnæan system, and has an especial seed-collector (semillero), who gathers the seeds in the garden, and distributes them among other gardens. He stands under Cutanda, who is the director of the garden of Madrid, only as regards corresponding with other gardens, which are connected with it by exchanging seeds, superintending generally the garden cultivation, and enriching it with new species, but he has nothing to do with the cultivation itself. The herbariums constitute the most important portion of the botanical museum; those of Cavanilles, Rodriguez, Née, Clemente, part of the collections of Lagasca, Pourret, and others, being kept there; likewise many plants of Boissier and Reuter, some gathered by the writer of this notice, and by several of the pupils of the botanical institution. All these collections were lying in the greatest confusion in Rodriguez's time, so that it was utterly impossible to compare any plant, or examine any particular original specimen. Cutanda has made it a point of primary importance to introduce some order into this chaos, after four years of constant exertion, aided by the semillero, Don Francisco Alea, a young, zealous, and clever botanist. All the said collections form now one general herbarium, of about 30,000 species, arranged according to De Caudolle's method. The specimens of each species, in the several herbariums, are placed separately in sheets of paper, having a printed label with the name of the herbarium attached; and a detailed catalogue renders the search after any particular species very easy. Cutanda is now engaged in determining all the species in this general herbarium, from first to last, because there are many plants in it, either not at all, or wrongly named. It is likely

to obtain soon a very considerable addition in Lagasca's herbarium, which the Government intends purchasing. One portion of this latter, consisting of some hundreds of packets, is in the natural-history building; the other, in about twenty cases, lies at the Custom-house in Malaga, where both have continued many years, because Lagasca's heirs, who are uneducated people, caring nothing about botany, have declined to defray the expenses of warehousing the collections.

The number of cultivated plants in the Madrid garden very little exceeds 5,000 species. The catalogue, published in 1849 by the three professors, at their own expense, comprises 3,780 species,—that is, such only as they were able to determine since the death of Rodriguez, which took place in the summer of 1847. He had—it is impossible to guess for what reason—removed all the labels of the plants! Cutanda takes much pains to increase the number of plants, and is particularly anxious that the Madrid garden should cultivate all the plants of the peninsula. As a member of the *Comision de la Carta geologica de Espanna* (which chart, at present merely an accurate geognostic-botanical one of the province of Madrid, is to be published at the charge of the Government) Cutanda is obliged to undertake annual journeys, in order to study the vegetation of the country; on which occasion, he is always accompanied by the *semillero*, who collects seeds and plants for the garden. If this honest, zealous, and disinterested young man is long spared, the Madrid garden may be expected gradually to recover the rank it held in Cavanilles's time. Last year the government built a hot-house, which was hitherto entirely wanting. It is still more to be wished that a better supply of water could be obtained; at present it is scarcely adequate for watering one-half of the very considerable area of the garden, especially in summer.

What is hoped for in regard to the Madrid garden, has partly been accomplished in that of Valencia. When the author visited it for the first time in 1844, it was only nominally a botanical garden, in which little more was cultivated than oranges, limes, roses, and common ornamental plants; whereas it is at present in tolerable order, and contains more than 6,000 species. There is a pretty large glass-house, one-half being a *caldarium*, the other a *tepidarium*: in the former are cultivated nearly 130 species of *Orchideæ*, and 50 of *Palms*; in the latter, among others, a considerable number of tropical and subtropical *Ferns*. A second house is to be erected in the course of the present year. A number of *Crassulaceæ* and *Cactææ*, and similar plants of New Holland and the Cape, grow in the open air. The general number is constantly augmenting, and everything is done to cultivate plants of colder climates than the Valencian, by means of watering, artificial rocks, shrubberies, &c. This sudden and advantageous change in the state of things is almost exclusively due to the then Rector of the University of Valencia, Don Francisco Carbonell. This learned, energetic, and wealthy gentleman, was political chief of Valencia in 1844, and was much dreaded throughout the kingdom, on account of his inflexible and rather despotic procedure; but he made it a point, it seems, to restore, at any cost, the university garden. Though a diplomatist, and not a botanist, he interests himself actively in na-

tural history, especially zoology and botany. The hitherto very insignificant zoological museum of the university was considerably enlarged during his rectorship; for instance, the indigenous birds of Valencia, especially the numerous water-birds of the Albufera Sea, have been added, and form a very interesting collection. The director is Professor Dón Ignatio Vidal, who is said to be a good zoologist. But Carbonell's real hobby is the botanic garden. He has removed, somewhat arbitrarily, the old *personnel*, with the exception of D. José Piscueta, Professor of Botany, who was garden-director in 1844, and continues so still, though, of course, only nominally; and he has attached to it a clever, scientific French gardener, M. Jean Robillard, a zealous young man; and as the public funds were too insignificant to restore and support the garden, he has contributed large sums out of his own means. M. Robillard has placed himself in communication with the leading gardens in Europe, and will be able, under the powerful patronage of Carbonell, to double and treble the number of plants in a short time. If we take into account the excellence of the climate of Valencia—in which New Holland and Cape plants, as well as many plants of tropical countries, thrive in the open ground—the superiority of the soil, the abundant supply of water, the continually moist and never-too-hot air—it must be admitted that we have here a combination of all the conditions required for a grand botanic establishment; and such the Valencia garden will become, if Carbonell's life is spared and his rectorship continued. I will, in conclusion, specify some of the rarities in the garden; rarities, at least, as concern the individual specimens. The large water basin is filled with tropical aquatics, such as several plants of *Nelumbium speciosum* in full bloom at the time I speak of (August), and remarkable on account of the great size of the flowers and leaves. In the open air grow small trees of *Gleditschia caspica*, the stem of which is armed with compound spines a span long; *Parkinsonia aculeata*; *Araucaria excelsa* and *imbricata*; and a splendid specimen of *Yucca filamentosa*, with a stem eight feet high and nearly one foot thick. The *Parkinsonia* is a layer from an old large tree, which was ignorantly cut down by the Canon Carrasco, formerly director of the agronomical garden, now united with the botanic garden. The *Chamærops humilis*, which so much astonished me in 1844, is fortunately still in existence, and it measures nearly twenty feet in height. The proper "botanical school" remains still a Linnæan arrangement, but it is intended to put it in order according to the natural system. May the Valencia garden continue its progress towards perfection, and serve as a praiseworthy pattern of imitation for all the other botanical establishments in Spain!—*Hooker's Journal of Botany.*

THE EXHIBITION OF TULIPS AT MANCHESTER, 1851.

BY DAHL.

THE readers of the FLORICULTURAL CABINET will remember that in the July number of last year, I gave a report of the northern exhibi-

tion, held at the Corn Exchange in this town. It was then decided by the Committee that the meeting for 1851 should be held at Derby. In the interim there has arisen a little misunderstanding between some of the exhibitors and the Committee, and the result has been (though there has been for some years an exhibition in this town,) that this year the show should be of greater magnitude. This meeting was held on Friday, May 30th, at the Belle Vue Gardens, a very pretty place of resort, about three miles out of the town, a place very appropriate for the purpose. The Tulips were placed in a covered tent, upwards of fifty yards in length, and I am pleased to report that it was an imposing sight. A table fifty yards long, covered with blooms, was a display that *only a Tulip fancier can duly appreciate*. The whole was far superior to the grand northern gathering of the last year.

It really is a pleasure to see that the cultivators around Manchester are making a rapid stride in the march of improvement, and at this exhibition they came out well, which, with a few exceptions, would not displease the *most fastidious fancier*, and even those few exceptions appear to be more the clinging to old associations than a wish to be diverse from the rules laid down in the southern parts of the country.

The prizes were as follows :—

One Pan, to which a pint Silver Taukard was awarded.

Queen Charlotte.
Louis XVI.
Polyphemus.

Charles XII.
Unique.
Heroine, *extra fine*.

Feathered Bizarres.

1. Charles XII.
- *2. Lord Lilford (Crompton's)
- *3. Magnum Bonum.
- *4. Sans Joe.
5. Surpass Catafalque.
6. Slater's Prime Minister.
7. Passe Perputa.
8. Duke of Savoy.
9. Trafalgar.

Feathered Byblomens.

- *1. Bienfait Incomparable.
2. Baluruc.
3. Buckley's Beauty.
4. Incomparable Surpassant.
5. Kossuth.
- *6. Baquet.
7. Lancashire Hero.
- *8. Gibbon's Seedling.
- *9. Violet Amable.

Flamed Bizarres.

1. George IV.
2. Polyphemus.
3. Sans Joe.
- *4. Shakspeare.
5. Lussire.
6. Duke of Devonshire.
7. Albion.
- *8. Lord Stanley.
9. La Cantique.

Flamed Byblomens.

- *1. Queen Charlotte.
- *2. Roi de Siam.
3. Bienfait.
4. Atlas.
5. Incomparable.
6. Democrat (Dixon's).
7. David.
8. Violet (Walter's).
9. Black Baguet.

Flamed Roses.

1. Unique.
2. Vesta.
- *3. Triumph Royal.
4. Lady Crew.
5. Aglaia.
6. Compte de Vergennis.
7. Guerrier.
8. Lord Hill.
9. Camillus.

Feathered Roses.

- *1. Heroine.
- *2. Compte.
- *3. Aglaia.
- *4. Lady Crew.
5. Wilmer's Prince of Wales.
6. Bion.
7. Andromeda.
8. Lady Lilford.
9. Duke de Bronté.

Rose Breeders.

1. Lord Derby.
2. Lady Suffield.

3. Andromeda.
4. Catherine.
5. Jackson's Rose.

Byblomen Breeders.

1. Unknown.
2. Gibbon's Seedling.
3. Lady Seymour.
4. Sancta Sophia.
5. Bacchus.

Bizarre Breeders.

1. Prime Minister.
2. Polyphemus.
3. Masterpiece.
4. Abdolonimus.
5. Unknown.

Selfs.

1st.

White Flag.
Roi de Mine d'Or.

2nd.

Alba Perfecta.
Strong's Yellow.

Those marked thus (*) were splendid blooms.

Among the blooms exhibited was Crompton's *Lord Lilford*, a feathered bizarre, a northern seedling, finer this season than I have ever seen it before, and will become a useful and popular flower. *Lady Lilford*, a feathered rose, another northern, was conspicuous, and will be prized. *Queen Charlotte*, an old northern, and Gibbons' *Sable Monarch*, are two of the best heavy-flamed byblomen that the north has produced. Slater's *Prime Minister* is another northern gem, and is a new broke feathered bizarre, in the style of Walker's *King* in its best state, but antagonistic to that flower; it is steady in its habit; the only drawback in the bloom shown was that the three outer petals had suffered by the frost. *Bienfait*, *Heroine*, Buckley's *Beauty*, *Lord Stanley*, and many others, were in fine state, and fit for the most fastidious gaze. Conspicuous in the group was Alexander's *Monarch*, a fine feathered bizarre, but, owing to some little defect, it did not gain a prize; it must become a favourite. There were some flowers shown under wrong names, which is not to be wondered at when it is taken into consideration that some of the exhibitors were poor men, but to their credit can grow a Tulip fit for competition, and can take a pleasure in employing their spare time over their Tulip-beds, instead of wasting it at the beer-shops. [Very highly to be commended.—EDITOR.] Who can with pleasure join in chorus with the poet when he sings—

“ 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.”

ORIGIN OF SEVERAL VARIETIES OF MOSS ROSES.

BY MR. H. SHAILER, CHAPEL NURSERY, BATTERSEA FIELDS, LONDON.

ON the first introduction of the old red moss rose, in or about the year 1735, it was sent over with some plants of orange trees, from the Italian States, to Mr. Wrench, then a nurseryman and gardener, at Broomhouse, Fulham, the same land being now in the occupation of the descendants of that family, the Messrs. Fitch, extensive market gardeners, &c. It remained in that family nearly twenty years, without being much noticed or circulated, until a nurseryman, named Grey, of the Fulham nursery, now Messrs. Osborn's, brought it into note. The first production of the white moss rose, which took place in the year 1788, was from a sucker, or underground shoot. My father, Henry Shailer, nurseryman, of Little Chelsea, an extensive grower of moss roses, perceiving it to be a *lusus naturæ*, from a stool of the red moss, cut it off, and budded it on the white Provence, or Rose La Blanche Unique. The buds flowered the following season a pale blush. He budded them again the next season, when the flower came much whiter. It was then figured in *Andrew's Rosary*, under the name of Shailer's White Moss. He then sold it out, the first plants to Lord Kimbolton, then to the Marquis of Blandford, Lady de Clifford, the Duke of Gloucester, &c., at five guineas per plant. He continued to sell at that price for three years; he then entered into a contract with those highly respectable and extensive nurserymen, Messrs. Lee and Kennedy, of Hammersmith, they taking as many plants as he could grow for three years, at 20s. per plant, binding him not to sell to any one else under 42s. per plant. After cutting down the shoots which produced the white moss, the plant threw up two weak shoots, which he budded from; they flowered the second season from the buds, and that was the birth of the striped moss rose, a most beautiful and delicate variety, but when grown very strong, apt to go back to the original parent. The first production of the single red moss rose, 1807, was a sport of nature. My father sent some plants of moss roses to a nurseryman, named Essex, at Colchester, and on the receipt of a letter from that person, I went with my father to see the plant when it was in bloom. I took some cuttings away with me to bud, and the following autumn fetched the original plant to our nursery, at Little Chelsea, from whence we sent the first plants out, at 5s. The old scarlet moss rose, which is a semidouble, first flowered in 1808, on a plant given by my father to his brother, F. Shailer, of Cook's Ground and Queen's Elm, Chelsea. The first production of the Moss de meux was from a sport of the old De meux, in the neighbourhood of Bristol, but brought into a high state of perfection by Messrs. Lee, of Hammersmith. The Sage-leaf

Moss Rose I must claim myself. It was a sport of nature. I discovered it on a Sunday afternoon, in the month of June, 1813. I sold the whole stock to Messrs. Lee, of Hammersmith. It has a delicate shell-like form, and is a beautiful blush; now nearly extinct. On the first known production of La Blanche Unique, or the white Provence, it was discovered by Mr. Daniel Grimwood, nurseryman, of Little Chelsea. He was on a journey of business, in the county of Norfolk, in the month of July, 1775, when riding very leisurely along the road, he perceived a Rose of great whiteness, in a mill; he alighted, and on close inspection, discovered it to be a Provence Rose. He then sought an interview with the inmate of the mill, who was an elderly female, and begged a flower, which was instantly given him, and in return he gave her a guinea. In cutting off the flower he cut three buds. He went to the first inn, packed it up, and sent it direct to my father, who was then his foreman, at his nursery, Little Chelsea, requesting him to bud it, which he did, and two of the buds grew. In the following autumn he went down to the same place, and, for five guineas, brought the whole stock away. He then made an arrangement with my father to propagate it, allowing him 5s. per plant, for three years. At the expiration of that time he sold it out, at 21s. per plant, my father's share amounting to upwards of 300*l.* Mr. Grimwood sent the old lady at the mill a superb silver tankard, &c., to the amount of 60*l.* The Shailer's Provence, or *Rosea gracilis*, so named by Messrs. Lee, was raised from seeds of the Spineless or Virgin's Rose, sown by myself in 1799, and flowered in 1802. We raised numerous varieties from seed up to 1816, and generally sold them to Messrs. Lee, who sent them out under their own naming.—*Extract from Practical Gardener.*



IN THE FLOWER GARDEN.

JULY is proverbially a hot and dry one, it will therefore be highly necessary, during the continuance of dry weather, to administer copious supplies of water. This should be done towards the evening of each day, because the plants have then time to absorb the water gradually, and appropriate such portion as contributes to their well-being. It is only in extreme cases that water should be given in the morning, because it is then so quickly exhaled from the soil, as well as the leaves, that its refreshing and nutrimental properties are almost wholly wasted. Rain-water is best, or that from an exposed pond or tank. Where beds of plants have been repeatedly watered through a rose, the surface of the soil will probably have become *crusted* and almost *impervious* to moisture; consequently they ought to be stirred over occasionally with a small fork. Continue to make up any deficiencies in the beds. A few annuals, as Mignonette, &c., may now be sown to bloom in the autumn, also biennials to bloom next year.

FLORISTS' FLOWERS.—*Auriculas* should be kept in the shade, and occasionally watered as necessary. At this season of the year the plants are often attacked with green fly, which should be removed with a camel-hair brush, or dip the plants in a solution of tobacco-water. *Tulips* will have perfected their growth, and should now be taken up, as if allowed to remain too long it invariably acts prejudicially on the bulb. *Ranunculuses* will require to be taken up as soon as their foliage has become withered and dry, and the roots preserved in bags. *Pinks* may still be piped, if not already done, as recommended last month. *Carnations* and *Picotees*: As the pods are fully formed and ready to open, secure them round with a ring of India-rubber, gutta-percha, or bass, to prevent their bursting on one side. When blown, they should be shaded. Never suffer the plants to flag for want of water. Proceed with layering. *Dahlias* will require *thinning out* freely as they advance in growth. In dry weather give water very freely, and if the plants are sprinkled overhead late in the evening with a fine rose or syringe, their luxuriance will be greatly promoted. Trap earwigs by all possible means, on the principle that prevention is better than cure; they will not be wanted when the blooming season comes on. *Pelargoniums* that have shed their flowers should be cut down, disrooted, and potted in smaller pots, keeping the plants for a week in a close frame, to assist them in developing their new shoots. *Roses* may now be budded, moist weather being best for the operation. It is of importance that there should be a resemblance between the bud and the stock as to the vigour of vegetative growth, in order to ensure a

successful result. If a Rose of slow development is budded on a rampant briar, and all the strength of the latter is turned into the parasitical stranger, health cannot be maintained, nor will a freely vegetating Rose submit to be impeded in its progress by a sluggish stock. Thin away surplus branches from all stocks not budded as early as possible, not to wait a day even, but get the branches left strong and healthy.

IN THE FORCING FRAME.

Where stove and greenhouse plants afford suitable cuttings, propagation may still be pursued; as, generally speaking, it can be practised with greater success in the early than in the latter part of the year. It should be remembered that the propagation of most plants is facilitated by the employment of bottom-heat and bell-glasses. Stove plants will derive great advantage from a partial shading during the glare of the day, and will be less liable to injury from drought. Many plants that have made vigorous growth will require shifting, especially such as *Justicias*, *Clerodendrons*, &c. Give plenty of water at the roots, syringe often in the evening, and keep the floors of the house and every part damp, to assist in maintaining a humid atmosphere; it is surprising the amount of evaporation going on at this season. Bulbs of *Amaryllis*, and other stove and greenhouse plants, can be put together in a pit or frame, where they will be near the glass, and where the influence of the sun, with a gradual diminution of water, will mature them. Never permitting the foliage to flag is a good criterion as to the quantity of moisture required, and they may be kept as near that state as possible.

IN THE GREENHOUSE, &c.

As a free ingress of air must necessarily be permitted during fine weather, its rapid circulation, conjoined with active solar heat, must cause a rapid evaporation both from the plants and soil; hence there exists a necessity, under the above circumstances, of watering and syringing frequently. However beneficial a screen may be during bright hot weather, its presence is not required while the sun is obscured. Encourage the growth of *Azaleas* and *Camellias* by keeping them comparatively close (with shade during sunshine), and supplying them liberally with moisture administered by the syringe. As probably increased room will be obtained by the removal of many plants to the flower-beds, the space might be appropriated to the cultivation of plants of the commoner sort, for an autumn display. The pits will be found useful for many hard-wooded greenhouse plants, impatient of too much heat. Propagate *Roses* by cuttings from those plants which have been forced, and place the plants in a rather shady situation, in order that they may have a period of rest for a few weeks. *Calceolarias* that have ceased blooming should be re-potted; cut off dead tops, place the plants in a situation where they can be shaded from hot sun, admitting it morning and evening. Seed should be sown, so as to have the plants strong, to endure winter; such will bloom next season, and be much more vigorous than plants raised from cuttings. *Cinerarias* also that have done blooming should have the tops cut off, be fumigated in a close

frame, as they are often affected with green fly; after which the plants should be turned out of the pots, and planted in a somewhat raised bed of good soil, in the garden. Sow seed now; the young plants will bloom early next spring. Epacrises, Ericas, &c., now done blooming, may be cut in, to render them bushy. The tubers of *Tropæolums* which have ceased blooming, and the tops withered, must be taken out of the soil, or be kept in a bag, &c., or the pot must be put aside, where it may have the soil kept dry till potting time. Greenhouse plants placed in the open air in pots should have frequent waterings at the under side of the foliage, to destroy or keep down green fly. Moss laid lightly between the pots keeps the roots somewhat cool, and tends to promote the health of the plants. Occasionally water the moss, if the weather be hot and dry.

SEEDLING PELARGONIUMS OF 1851.

THE following superb varieties have been raised by G. W. Hoyle, Esq., of Reading:—

Remus.—Upper petals, dark clouded, margined with fine crimson; under petals bright pink, with a crimson spot in the middle of each; centre of blossom white. The petals are of good substance, the edges even, and the flower of first-rate form and excellence.

Magnet.—Upper petals dark clouded, shading off with scarlet crimson; under petals bright rosy scarlet, tinged at the lower part with violet and white; petals of good substance, and flower of fine form. The first prize (silver medal) was awarded for this flower at the Pelargonium Fund Exhibition, Regent's Park, June 11th. It had a first class certificate at the National Floricultural Society.

Ganymede.—Upper petals dark crimson-purple, with a narrow edging of rose; lower petals, beautiful pink; centre of flower, pure white. Fine substance and first-rate form. This obtained the fourth prize at the Pelargonium Exhibition, and a first-class certificate at the National Floricultural Society.

Elise.—Upper petals, bright rosy-scarlet, with a dark crimson blotch, and a distinct narrow edging of rose; lower petals, bright flesh-colour; and a large white centre. Of good substance; very showy. Obtained the third prize at the Pelargonium Exhibition; a first-class certificate at the Royal Botanic, also at the National.

Beatrice.—Upper petals very dark maroon, with a narrow edging of crimson; lower petals rosy-flesh colour, with a red spot in the centre of each; centre white. Very distinct and showy.

Colonel of the Buffs.—Upper petals rich red, with a very dark blotch; lower petals a buff-red. Distinct and showy.

Herald.—Upper petals rich maroon-crimson, with a narrow flesh-coloured edging; lower petals a pretty pale blush; centre white; very pretty. The seventh prize at the Pelargonium Exhibition.

Chieftain.—Upper petals crimson maroon, with a rosy-scarlet edging; lower petals pale rosy-red; a small white centre. Certificate at the National.





Sclerogonium Roscum - Stratum.



FLORICULTURAL CABINET

AUGUST, 1851.

ILLUSTRATIONS.

PELARGONIUM—ROSEA-STRIATUM.

THIS singularly pretty variety was raised by H. C. Wise, Esq., from whom it was obtained by Mons. Meillez, nurseryman, of Esquermes, near Lille, in France. We understand the variegation in the flowers is constant; from which circumstance we may expect, by hybridizing with others, a new section of novelties will be produced.

It is figured in Mr. Van Houtte's *Flora*, of whom, we suppose, as well as of Mr. Meillez, plants may be had, and it certainly deserves a place in all collections of fancy varieties.

The interesting article by our respected correspondent "Orion," continued on page 199 of our present Number, renders it unnecessary for us here to enlarge upon this beautiful tribe of flowers.

NOTES ON NEW OR RARE PLANTS.

ACACIA GRANDIS (THE GRAND ACACIA).—This very showy flowering species is a medium-sized shrub, with Mimosa-like foliage. The flowers are borne in profusion, each globe-shaped, and about half an inch in diameter. They are of a deep yellow colour. It is one of the handsomest of this charming tribe of plants, and ought to have a place in every greenhouse. Plants have been shown at the Regent-street Rooms of the Horticultural Society during the present season, and considered one of the most elegant. (Figured in *Mag. of Botany*.)

ACACIA HISPIDISSIMA.—A Swan River shrub, much branched, and of dwarf habit. The foliage is small, Mimosa-like. It is a most profuse bloomer, each blossom globe-shaped, half an inch in diameter, of a deep golden yellow. It is somewhat like *A. pulchella*, but even handsomer than that charming species. It merits a place in every greenhouse. (Figured in *Bot. Mag.*, 4588.) Among the gay flower-

ing plants of winter and spring, this tribe of plants ranks with the most ornamental, and sheds a delightful perfume too. They are of very easy culture, and can be procured at a trifling cost.

BERBERIS DARWINNI.—This very handsome Barberry is an ever-green, of moderate-sized growth, from three to five feet high, bushy. The leaves are small, of a rich deep green. The flowers, borne in profusion, of a rich deep yellow. It is quite hardy, and well deserves a place in every shrubbery.

BROUGHTONIA LILACINA.—This pretty flowering Orchideous plant is a native of the West Indies, we believe of St. Domingo. It is in the collections around London. Each blossom is near two inches across, of a pretty lilac colour, with a yellow streak down the centre of the lip. It has bloomed at Mr. Rucker's, and at Messrs. Henderson's, of Pine Apple-place. (Figured in *Magazine of Botany*.)

CANTUA BUXIFOLIA (synonyme, *C. DEPENDENS*).—A very splendid plate of this handsome, flowery, half-hardy, shrubby plant is given in *Paxton's Flower Garden* for July, illustrative of which are the following particulars:—

“It is doubtless true that *Cantua buxifolia* is a *variable* plant, more or less downy, and having flowers either *crimson* and *yellow*, as this is, or *white* and *yellow*, or, perhaps, merely *yellow*. All these forms may be expected to appear from the same batch of seeds. In fact, among Mr. W. Lobb's dried specimens, no fewer than six different numbers are occupied by the forms of the same species, viz., this *C. buxifolia*. But the materials before us lead to the inference that other forms of the genus exist in temperate South America, which are specifically distinct from *C. buxifolia*, and from each other.

“In the first place we have a Peruvian plant, collected by Dombey, and distributed by the Paris Herbarium, under the name of ‘*C. grandiflora*, No. 382.’ This, which is nearly entirely smooth, has much shorter flowers and blunter leaves than *C. buxifolia*, the calyx being almost half as long as the corolla tube; it is probably *C. ovata*.

“Among Bridge's last Bolivian collection is a shrub with leaves and calyxes covered all over with a viscid glandular pubescence, an extremely narrow crimson-streaked corolla and calyx. This we presume to be *C. tomentosum*.

“Finally, we have in the same collection a species, with flowers growing singly at the end of short lateral branches, and calyxes almost half as long as the tube of the yellow corolla, and to this the name of *C. uniflora* seems to belong.

“These plants (and others) are likely to appear in our gardens, now that the importation of seeds has commenced into this country. They should be diligently sought for by those persons who have correspondents in Bolivia or Peru.”

EPACRIS CONSPICUA.—An hybrid seedling, raised by Mr. Kinghorn, gardener to the Earl of Kilmorey, at Twickenham. It has the habit and foliage of *E. grandiflora*; flowers large, *bright crimson-scarlet*, with a large white tipped end.

E. GRANDIFLORA-RUBRA.—Habit and foliage of *E. grandiflora*, and the large flowers of a *deep crimson*, tipped with white. Mr. Kinghorn's seedling.

E. KINGHORNII.—Habit and foliage of *E. grandiflora*. The tube of the flower is rather shorter, of a clear rose colour at the lower part, and paler upwards, with the tip of a pure white. Very neat and pretty. Mr. Kinghorn's seedling.

E. HYACINTHIFLORA CANDIDISSIMA.—Habit and foliage of *E. variabilis*. Corolla of a broad bell-shaped form, and of a pure white. Seedling of Mr. Story's. The four are figured in *Magazine of Botany*.

Both Mr. Kinghorn and Mr. Story have paid considerable attention to the improvement of this charming tribe of plants, and they have been amply repaid by the valuable hybrids which they have supplied the floral public with. There is still room for much more to be done. Why may we not have some of the habit of *E. pulchella*, with bright crimson, red, or scarlet flowers, and thus increase the beauties which are *summer bloomers*; and similar coloured ones having the habit and form of *E. impressa*, *campanulata*, &c., and thus improve the *winter bloomers*? Attempts to raise hybrids will be highly interesting, and the result satisfactory. Similar attempts with many other families of greenhouse plants would amply repay for every attention.

GLOXINIA PETOIANA.—A handsome hybrid, raised at Somerleyton Hall gardens, in Suffolk. The ground is white, and the upper and lower parts of the throat surrounded (as in *G. Fyfiana*) with a rich crimson-like colour. Messrs. Youell and Co. obtained the stock of plants.

NYMPHÆ RUBRA. THE CRIMSON WATER-LILY.—It is a stove aquatic from the East Indies. We recently saw it in fine bloom in the large aquatic house at the nursery of Messrs. Knight and Perry, King's-road, Chelsea. The flowers were eight inches across, of a rich crimson colour, which produced a pretty contrast with the flowers of other kinds then in bloom in the same house. It is very showy. (Figured in *Paxton's Flower Garden*.)

PELARGONIUM GOLDEN ADMIRATION.—One of the usually termed *Scarlet-Geranium* section. It has rich golden variegated foliage, a free bloomer, the flowers large, and of a brilliant scarlet.

P. BEAUTY OF THE PARTERRE.—Foliage green, with a very distinct dark horse-shoe marking. The plant is of dwarf habit, blooming freely. The flowers are of a bright salmon colour. Very pretty, and excellent for beds or pots.

P. BRIDAL BOUQUET.—The leaves have a green centre, surrounded with clear white; a free bloomer, having flowers of a deep crimson-scarlet.

P. PUNCH.—Foliage green, dwarf habit, and blooms very freely. The flowers are of fine form, of a rich scarlet, and borne in very large heads. It is a charming variety for beds or pots. There are some beds of it in the Royal Gardens of Kew, which surpass all others of its class.

P. JUDY.—Foliage green. Flowers good form, in large heads, of a pretty *rosy-salmon* colour. There is a bed of it at Kew, which has a very pretty appearance.

P. PEACH BLOSSOM.—The leaves are large, similarly marked to Lee's Flower of the Day. A free bloomer, flowers good form, of a salmon colour.

P. COMMANDER-IN-CHIEF.—The foliage is green, with a very pretty horse-shoe mark of velvet and yellowish red. The flowers are of a rich orange-scarlet, good form, and produced in *large* heads. An *excellent variety*, either for beds or pots, and very handsome in any situation. The young stems as well as flower-stalks are of a yellow-cream colour, almost *pure transparent*, and have a very pretty appearance.

P. PRINCESS ALICE (Ingram's).—The foliage entire green, similar to Lucea-rosea. The flowers are produced in large heads, good form, and of a very rich rosy-pink. A very beautiful variety, the best of its class. It was raised in the Royal Gardens at Frogmore, near Windsor.

P. PRINCESS ROYAL.—A neat dwarf-growing variety, blooming very freely. The leaves are of a deep green, with a most distinct black horse-shoe mark. The flowers are of a deep crimson-scarlet. Remarkably neat; a pretty variety, either for beds or pots.

P. LILAC UNIQUE.—All who see the *Purple Unique* admire its rich purple flowers, borne in such profusion. The Lilac Unique is a charming companion to it, of a pretty lilac, with a distinct dark spot on each of the upper petals. The flowers of similar size to the purple variety. Both are admirable for beds or pots, and bloom well during winter in-doors.

P. SCARLET DEFIANCE.—Foliage green; flowers good form, of a brilliant scarlet, with a white eye, produced in large heads, of a dwarf habit.

P. SIR JOSEPH HUME.—The foliage green, and the flowers of good form, a rich scarlet, with white eye. Very pretty and showy.

PLEIONE HUMILIS. THE HUMBLE. (Synonym: *Epidendrum humile*, *Cælogyne humilis*, *Cymbidium humile*.)—Dr. Buchanan Hamilton discovered this little gem in Upper Nepal, among moss, on the trunk of trees. Mr. Lobb has sent it to Messrs. Veitch from the Khasijah Hills. It is an Alpine herbaceous plant. The flowers appear before the leaves. Each blossom is three inches across. Petals and sepals narrowish, but the lip is broad. The former are of a pale lilac colour, and the latter white, having at the sides a broad margin of yellow, dotted numerously with red spots, and the end of the lip too. Each flower-stem rises about two inches high. (Figured in *Paxton's Flower Garden*.)

PYXIDANTHERA BARBULATA. THE BEARDED. (Synonyme: *Dia-pensia barbulata*, *D. cuneifolia*.)—A small tufted, procumbent, creeping, and wide-spreading shrub. It grows in the warm "pine barrens" of New Jersey. Sir W. J. Hooker states, "Early in the month of May I was gratified, on the arrival of the Royal mail-steamer from

New York, with tufts of this charming little plant sent me by Mr. Evans, of Radnor, Delaware, gathered in New Jersey, and they were as fresh and as full of perfect flowers as if that day removed from their native soil." The leaves are *heath-like*, about half an inch long. The flowers are one-petalled, having five divisions, white; each blossom nearly half an inch across, and produced so numerously as to form a carpet of flowers. The blossoms are red before expanding. Plants have been received at the Royal Gardens of Kew; but they did not survive long. It is a very handsome, low, prostrate plant, and would be valuable for a rock-work, on which a suitable situation, either open or shaded, might be appropriated for it. (Figured in *Bot. Mag.*, 4592.)

—————

The following handsome Flowers are in bloom in the Royal Gardens of Kew:—

PELARGONIUM DIADEMATUM : SPINII.—It is one of the *fancy class*, which produces a very striking contrast with the richer coloured flowers. Its blossoms are of a bright *rosy-pink*, and the bed of it has a charming appearance.

P. PINK NOSEGAY.—Foliage green, with dark horse-shoe marking. The flowers are produced in large heads, of a very pretty *salmon-pink*. It makes a pretty contrast with the scarlets.

P. CERISE UNIQUE.—Foliage green, dwarf habit. Flowers of a *bright cherry* colour. A very pretty variety, either in pots or beds.

P. LE TITIEN.—Green, with dark horse-shoe marking. The heads of flowers are large, and the blossoms a *lively carmine*.

P. KING RUFUS.—Allied to the *Fancy class*; dwarf grower and profuse bloomer; very good bedding variety. The flowers are large, of a rich *ruby-scarlet*; very showy.

P. IVY-LEAVED.—Beds, compactly filled, of the white and purple flowered varieties, have a pretty effect. Their deep-green leaves, covering the soil with a green carpet, adorned over head with the pretty flowers, are very interesting.

P. DIADEMATUM-RUBESCENS.—Of the *Fancy Class* of bedding varieties.—Plant dwarfish; profuse bloomer; flowers large, of a pretty *rosy-pink*.

VERBENA SEYMOURII.—There are some beds of this neat variety which have a very pretty appearance. It is an hybrid, of the very cut-leaved section, such as *Sulphurea*, *Pulchella*, &c., which are very dwarf. The flowers are borne in profusion; heads of medium size, flowers medium size too. In their early stage are of a bright pink, but become white at a later period, and the heads appear pink, margined with white. The flowers have an *Heliotrope* fragrance. It is a very desirable variety for a small bed, or for an edging.

PETUNIA. SHRUBLAND ROSE.—This is a most beautiful variety; grown there in beds it produces a nice effect. The flowers are of a clear bright rose, with a white eye.

P. DEVONIENSIS, or *Beauté Supreme*.—Flowers large, of a rich purple-crimson. The plant is a compact grower, blooms profusely, and, being large, is exceedingly showy. Beds of it have a very showy appearance.

LOBELIA ERINUS-MAXIMA.—This is one of the prostrate section, a compact grower, and a most profuse bloomer. The flowers are of a rich deep blue, with a white eye; and a bed of it, compactly filled, has a *very striking* appearance.

L. COMPACTA.—This is of the upright-growing section, dwarf, and of bushy habit. The flowers are of a beautiful light blue. A very desirable plant.

FANCY PELARGONIUMS.—Small beds of Queen Victoria and Lady Flora Hastings have a pretty effect. White grounds, the former coloured with rosy-purple, and the latter with lilac-purple upper petals.

PENTSTEMON, New Species, from the Texas.—This very handsome species is in bloom in the open bed in the Royal Gardens, Kew. It has the habit of what are now denominated the **CHELONE** section. The floral spikes are about a yard high, two feet of which is adorned liberally with its pretty flowers. Each blossom has a rather wide tube, three-quarters of an inch long. The end (properly *limb*) is three-quarters of an inch across, slightly five-parted. The outside of the flower is scarlet, and the inner part a deep rose colour. It is a very strikingly distinct and beautiful species.

PENTSTEMON, New Species from California.—Also in the open bed in the Royal Gardens of Kew. The flower-stems are about two feet high. The blossoms are rose-coloured in their early stage, but become a fine blue afterwards. Each blossom (tubular) is two inches long. It is a very handsome addition to this fine flowering tribe of plants. Both the above ought to have a place in every flower-garden.

PENTSTEMON GIGANTEA ELEGANS.—A large circular bed of this very rich crimson flowering variety was margined with a broad belt of the blue *Salvia patens*. It produced a very singularly showy effect, the contrast being striking.

P. SALTERII.—White, edged with bright pink, very pretty.

ABELIA FLORIBUNDA (*Vessalia floribunda*).—In the greenhouse, a plant about three feet high, is in profuse bloom. Its lovely rose-coloured trumpet-shaped flowers, each two inches long, and borne in clusters, renders it deserving a place in every greenhouse. It can be obtained cheap. It does well trained to a wire frame-work.

POTENTILLA ANTWERPENSIS.—It is a dwarf grower. The flowers are semi-double, and an orange colour. Being somewhat double, the blossoms do not, like the single ones, close in the evening.

P. GRANDIS.—The flowers are as large as a half-crown, firm petals, fine circular shape, and of a rich deep yellow colour. The plant grows

two feet high, and is a very free bloomer. A charming variety; contrasts beautifully with the scarlet crimson, &c.

SALVIA AMABILE.—A handsome plant; the flowers in bud have the appearance of spikes of lavender, but when expanded the blossoms are a fine sky-blue, with a white eye.

TREE CARNATIONS.—We well remember in our early days being gratified by obtaining a plant of the crimson-flowered Tree Carnation. This kind was then common in the greenhouses in Yorkshire. Now, however, we have in this country twenty other kinds, all of which are very handsome, and highly merit cultivation. The following are offered to the public at a moderate price:—Attila, scarlet flake. Cassandra, rose. Gertrude, lavender, mottled with white. Incomparable, deep rose, striped with crimson. Jupiter, crimson. La Sermi, blush-white, mottled with rose. Vestatie, scarlet. Le Zephir, purple. Madonna, mottled rose and crimson. Nonpareil, blush-white. Proserpine, large crimson. The Baron, white, mottled with rose on the edge. Titus, dark crimson. Tom Pouce, blush, striped with rose. Union, white, striped with crimson.

This charming class of Carnations bloom in-doors both summer and winter, and are beautiful ornaments.

SELF-COLOURED AND CLOVE-SCENTED CARNATIONS.—Abbess of St. Clair, blush. Fireball, scarlet. Negro, dark purple. Parsee Bride, deep yellow. Purity, white. Queen of Denmark, rich red. Magnificans, rich crimson.

HELIOTROPIUMS.—H. Bertha Frapo: the flowers are of a darker colour than Voltairianum. Corymbosum: the plant grows from nine inches to a foot high, and forms a compact bush; the flowers are white, tinged with sulphur; they are produced in large corymbose heads, and have a most lovely appearance; they are powerfully fragrant. It ought to be grown in every greenhouse, room window, and flower-bed. All who see it fall in love with it. Bernedianum, flowers a dark blue, shaded with violet. Lilacina, lilac and blush, distinct and pretty.

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 149.)

BY ORION.

In the last article an error was made in stating that there were *only three* nurserymen about the year 1838 who were celebrated for the culture of Pelargoniums. It appears Messrs. Colley and Hill, of Hammersmith (a firm long defunct), contributed collections to the exhibitions, and obtained several prizes. There were also other growers; but the chief part of the trade was centered in the parties named.

The year 1839 was not productive of much improvement, though several decided novelties first appeared, among which were OLIVER TWIST, a small orange-scarlet flower, sent out at one guinea; the still much admired JEHU, at one guinea, now ranking with those termed

Fancy Flowers; and the once celebrated JEWESS, raised by Mr. Foster, and sent out at three guineas. This was considered a splendid acquisition, and the demand was greater than the supply of plants; every body wanted it, and a good sum of money must have been realized. Mr. Foster also raised his DISCOUNT, sent out at one guinea; GLOW-WORM, PRIMA DONNA, SPLENDIDUM, SUNBEAM, VESTA, and VIVID, all advertised at two guineas each, but none of them worthy of any remark now, except that VIVID was the parent of many bright flowers, to be alluded to hereafter. Mr. Garth's principal flower this year was JOAN OF ARC, priced at four guineas each. This was a fine flower, and long continued popular, from its being a good market variety, with stiff petals and stout habit. His other flowers were FANNY GARTH, two guineas; MAGNA CHARTA, three guineas; UNA, three guineas, a nice clear light flower, and one which also became an excellent selling variety; PERFECTION, sent out at one guinea. To the above may be appended BEATRICE, three guineas, a good dark crimson; GAUNTLET (Gaines'), three guineas; LADY CARLISLE, one guinea, a high coloured variety; LADY E. BOULTEEL, two guineas, a good stage variety; and MADONNA, at one guinea. It would be superfluous at the present time to describe every individual flower; therefore, giving the names only of the *principal*, but short-lived, novelties, the descriptions will be confined to those which made the most stir in their time.

The year 1840 saw some flowers the first time, which, indeed, caused a sensation. Mention CONSERVATIVE, CORONATION, ERECTUM, GRAND DUKE, VICTORY, and SYLPH to any old enthusiastic cultivator, and he will say, "Ah! those flowers tempted me to lay out my money lavishly indeed;" and it is not surprising, for they were valuable gems in their day. Perhaps no single year saw such a step in advance before or since; and the fame they and their raisers acquired stimulated others in every part of England to enter the lists, and in 1842 we shall find that raisers of flowers and exhibitors became much more numerous, and a greater struggle for pre-eminence ensued. The "flower of the year" was undoubtedly CONSERVATIVE, raised by Mr. Garth, and priced at five guineas; it was of a peculiar and (then novel) rich purple tint, and became the precursor of many other celebrated purple flowers, as SIR ROBERT PEEL, MERCURY, &c. The chief fault it had, for all flowers have their faults, was an unconquerable propensity to curl the petals backwards; otherwise for the period it ranked as a first-rate variety. The same celebrated grower's CORONATION, sent out at three guineas, was a valuable addition; it was about the colour of the FLYING DUTCHMAN of our day, but with a fine habit, producing generally from ten to twelve fine flowers on one truss, a quality few of the present popular varieties possess. BIJOU, CLARISSA, CORINNE, RIENZI, ROSEA-ELEGANS, and VICTORY, all raised by Mr. Garth, and all advertised at two guineas each, were considered "stars" in their day, but do not call for any particular distinction, except that the last proved to be one of the useful selling varieties, possessing a good habit, with stiff well thrown-up flowers. It may be mentioned *en passant*, that CONSERVATIVE was the cause of more money being turned over than any other variety raised before or since. The writer remembers one gentleman

who would hardly tolerate any other in his garden, so attached was he to it, whether for the flower or the name it bore is not quite certain; but at any rate he did not mind paying five shillings each for two dozen plants, and to this day he still keeps some in his possession. Mr. Foster's flowers this year were **ERECTUM**, three guineas, a fine orange-tinted variety, very much exhibited afterwards; **BRIDEGROOM**, three guineas, a well-contrasted variety, having light lower and dark upper petals, but the *heavy blotch* of the present day was wanting; **FIREFLY**, **FLORENCE**, **LADY DOURO**, and **JESSICA**, each sent out at two guineas, are entirely forgotten now. Not so are the same raiser's celebrated **SYLPH** and **MATILDA**, each of which were priced at three guineas, and noble flowers they were, of a beautiful rosy-flesh ground, with a small but distinct spot on the upper petals, and both of such fine habit and freedom of bloom as still to be retained in some collections to the present time; indeed, nothing in the same way has since appeared to take their place. The same remark also applies to Bassett's **PRIORY QUEEN**, sent out at two guineas, still grown by some, there being no other similar variety, its colour a light lively pink. Gaines's **GRAND DUKE**, sent out at five guineas, was in much favour; it was a heavy crimson flower, but of bad form. **ANNETTE**, a good white, also appeared at one guinea, Gaines's **EMPEROR** at two guineas, and the same raiser's **MASTERPIECE** at three guineas. One other variety must be mentioned, as it was a bright addition—Catleugh's **ORANGE-BOVEN**, sent out at one guinea; this was the nearest approach at that time to what are now termed "scarlet flowers," and could have only been tolerated, as many are now-a-days, for the *intensity of colour*, as it was very faulty in every other respect.

SUMMER PRUNING THE ROSE.

BY A COUNTRY CURATE.

LAST summer I read in your Magazine the recommendation of Rosa to allow some shoots of last year's production to remain unpruned till spring; and after such had pushed new shoots, two or three inches long, then to cut away the entire portion of the shoot of last year's producing, down so as only to leave it two (or three at most) buds upon it. Thus by cutting-in, a fresh production of new shoots is induced, and they furnish a display of Roses after the early ones are over, and the blooming season of such Roses is prolonged. This spring I adopted the method, and find it to realize what was stated. This improvement in Rose culture, however, suggested to my mind the propriety of cutting-in, upon all my early blooming Roses, some of the most vigorous shoots of the present (1851) year's producing, and which had had flowers upon them, or otherwise, and they would most likely push new shoots, which would produce bloom at a later period this summer and autumn. I, therefore, looked over my Roses, and two or three of the strongest on each bush was cut-in, such as had bloomed an inch or two below the flowers, and those not having had flowers about one-third was cut away. This was done the middle of May, and now,

nine weeks after, I have a beautiful show of flowers on the secondary shoots induced by cutting-in, as stated. About the middle of June I cut back some other shoots which are pushing freely; and now (July 15th) I have shortened others. I feel assured that these later-produced shoots will furnish a display of flowers also, the first shortened ones doing so in so brief a period. By this simple process flowers may be had from the middle of May to November upon the same Rose.

This will be of advantage to persons not having much room to grow many varieties in, as well as to have an extensive blooming season of early summer favourites. There are a number of most beautiful early-blooming climbing Roses, as the Garland, Reine de France, &c., that by this simple process can be had in bloom from April to the end of summer.

The more the Roses bloom, the increase of rich food must be proportionately supplied by manure, manure water, &c.

A SIMPLE METHOD OF DRYING AND PRESERVING SPECIMENS OF FLOWERS, &c.

BY MR. H. STILWELL, OF PINE APPLE-PLACE NURSERY, LONDON.

THE apparatus required is several quires of good red blotting-paper, divided into parcels of three or four sheets each, and cut across the middle so as to make them oblong. Cut several sheets up the back into half-sheets, and let there be twice as many half-sheets as parcels. Five or six boards, a little larger than the paper, planed smooth on each side; common deal will do, but beech is better. The next thing is the press; but the following will answer the same purpose. Get several weights, say ten to twenty pounds each, and some knitting-needles.

The mode of procedure is as follows:—Upon one of the pieces of board lay a *parcel* of paper, and half a sheet over it; and on this put the floral specimen you wish to dry. Cut off all superfluous leaves or branches; and if it has a *thick* woody stem, cut off a slice from the under side; then carefully spread the leaves and flowers in as natural a position as can be, keeping any parts that would curl upwards in their proper places by laying the needles across them. This being done, place another half-sheet over the specimens, and upon it a *parcel* of the paper; hold it down with the hand, and draw out the needles at the side. If you have many *specimens*, extend the same mode of operation, always laying the specimens between two half-sheets; the reason for which is, that the *sheets* may be removed altogether without being separated, in order that the *parcels* may be dried by the fire. Thus proceed till you have all the specimens duly placed; then put a *board* on the top, as at the beginning, and finally lay the weights upon the top board. After a day or two take off the weights, and carefully remove the half-sheets without separating them; for if they are separated, the flowers are very apt to curl inwards, if not dry. Dry the parcels by fire, and replace the specimens. Repeat this process in a day or two, and thus continue the method.

Of course the more succulent the specimens are, the longer period will be required to complete their drying process; but when specimens have been in the press for a week or ten days, they may be taken out and arranged in the herbarium. The subject will be continued next month.

THE SPOTTING ON PELARGONIUM LEAVES.

BY MR. THOMAS GRAY, FLOWER GARDENER, BROOKE HOUSE, LIVERPOOL.

VERY numerous have been the complaints by Pelargonium growers about the injurious effects of the spot on the leaves, &c. of Pelargoniums. I have a large collection of the best kinds, both in fancies and the other classes. I never had a single plant affected with this pest previous to the present season; but procuring some of the newest kinds early in spring, I discovered that as soon as the leaves began to unfold they were frightfully affected by the spot. I directly separated the newly-procured plants from my previous collection, and placed them in a dry pit frame, where they stood elevated upon a wood lattice framework, so that the water dripping from the pots readily drained away, and the bottom of the pit being concrete, and slightly sloping, the extra water ran into the channel along the front, and entered the drain at the lowest corner. The first step was to dip the heads of the plants in water; and having done so, whilst wet I dusted them well all over the leaves, as well as the under sides and the branches. This being done, I had the glass lights placed over them, but so fixed that they were raised a foot above the usual framework, in order not only to cover the plants, so that rain might not wash the sulphur away, but the space at the front and back allowed a free current of air to pass. The sulphur was permitted to remain for a fortnight. I then had the plants again dipped over head; and moving them in the water for a time, all the sulphur was removed, and I discovered that the spotting was arrested; and now the plants have a perfectly healthy appearance, and not a spot is to be seen.

BANKSIAN ROSES.

BY ALPHA.

IN some early volume of your Magazine I recollect some judicious remarks are made relative to the particular treatment which this class of Roses require, it being very different from that which other Roses need. As many of the present subscribers may not have read those particulars, I beg to state that the Banksian Rose does not produce its flowers on the wood of the *present year's* growth as other Roses do, but on the wood of the *previous year*.

In consequence of this particular, the great object must be to obtain strong *well-ripened* wood of this season to supply the bloom of next year. The principal attention to effect this is to treat the Rose very similar to what is practised with the Peach-tree, as it regards its

summer regulation of new shoots by thinning away the superfluous shoots, retaining only those which have bloom upon them, and a due proportion being left for the following year's bloom. Towards the end of April hand-dress the Rose-tree, when the shoots will be about four inches long. Again, in July or early part of August look over the Rose, and stop the leads by cutting away about one-third of each; and, not to have the plant crowded, cut some clean away, or so as only to leave about three inches to form spurs of bloom. The wood now left, being kept nicely open, will have a proper chance of ripening by the end of summer. The shoots will require to be duly secured to the wall or trellis. If this attention to its pruning in summer be duly observed, it requires no other pruning during winter, and a constant and profuse bloom may be secured every year. I have adopted the plan for several years with the greatest success, the white and yellow blooming most profusely.

BRIEF REMARKS.

ROYAL SOUTH LONDON FLORICULTURAL SOCIETY'S EXHIBITION, SURREY GARDENS, HELD JUNE 25.—The following are the particulars of the awards for Pinks:—

Amateurs Class.—Twelve best varieties. First Prize, Mr. Baker, of Woolwich, for Sappho, Whipper-in, Lola Montes, Narborough Buck, Double X, Harriet, Alpha, Hark-forward, Criterion, Countess Rossi, and Mrs. Herbert. 2nd, to Mr. Halladay, of Woolwich, for Alfred Morrison, Lady Mildmay, Double X, Lola Montes, Lord John Russell, Hardstone's William, Agitator, Harriet, Jane Sarah, Brilliant, Winchester Rival, and Oxonian. 3rd, to Mr. Edwards, of Wace Cottage, Holloway, for King of Purples, Lady Mildmay, Double X, Winchester Rival, Laura, Harriet, Oxonian, Prince Albert, Rosalind, Alfred Morrison, Mrs. Herbert, and Jenny Lind. Other exhibitors in this class were Messrs. Ellis, Hardstone, Venables, and Willmer.—*Nurserymen*: Twenty-four varieties. First Prize to Mr. Norman, of Woolwich, for King of Purples, Rosea elegans, Narborough Buck, Willmer's Surplice, Lady Mildmay, Whipper-in, Goliah, Lola Montes, Rubens, Double X, Surpriser, Harriet, Brilliant, Diana, Criterion, A. Morrison, Laura, Morning Star, Alpha, Kate, Pickwick, Countess Rossi, Jenny Lind, and Melona. 2nd, Mr. Ward for Narborough Buck, Lady Mildmay, Smith's Goliah, Harriet, Hillier's Goliah, William, Winchester Rival, Brilliant, Bell's Henry, Laura, Melona, Morning Star, Lord W. Russell, Prince Albert, Jenny Lind, Lord J. Russell, Willmer's Elizabeth, Duchess of Kent, A. Morrison, Creed's President, Alpha, and Countess Rossi. 3rd, Mr. Bragg, of Slough, in whose stand we remarked, in addition to the flowers mentioned above, John Bull, Gay Lad, Sir Robert Peel, Benjamin, Nonpareil, Edward, British Queen, and Mrs. Hooper.

THE GREAT NORTHERN TULIP SHOW.—The exhibition was held in the County Hall, Derby, on 27th May 1851. The following is the statement of the awards:—

For the best Six Rectified Tulips, one of each Class.—1. Mr. Adams, Derby: Earl Douglas, Pilot, Washington, Princess Royal, Heroine, and Geraldine. 2. Mr. Houghton, Hempshill, near Nottingham: Royal Sovereign, Captain White, Britannia, Queen Charlotte, Heroine, and Triomphe Royale. 3. Mr. Charles Spencer, of Thulston: Charles X., Captain White, Unknown, Queen Charlotte, Heroine, and Camillus. 4. Messrs. Lakin and Son, Derby: Sovereign, Pilot, Eclipse, Princess Royal, Lady Middleton, and Aglaia. 5. Mr. Thorniley, of Heaton Norris: Charles X., Sanzio, Incomparable, Ly-sander Noir, Aglaia, and Rose Lac. 6. Mr. C. Turner, Slough: Polyphemus, Hamlet, Queen of the North, Primo Bien du Noir, Heroine, and Triomphe Royale. 7. Mr. Harpham, Nottingham: Polyphemus, Captain White, seedling feathered byblœmen, Violet Brun, Comte de Vergennes, and Aglaia.

Single Specimens, in Classes. — Feathered Bizarres: 1. Royal Sovereign, Mr. James Parkins. 2. Polyphemus, Mr. Adams. 3. Catafalque, Mr. G. W. Hardy. 4. Magnum Bonum, Messrs. Lakin and Son. 5. Duc de Savoy, Mr. Spencer. 6. Duke of Devonshire, Mr. Orson. 7. Trafalgar, Mr. Hudson. 8. Ulysses, Mr. Edwards. 9. Sir Sidney Smith, Mr. G. W. Hardy. 10. Pompe Funebre, Mr. Thorniley. 11. Sir Sidney Smith, Mr. G. W. Hardy. 12. Pompe Funebre, Mr. Thorniley.

Flamed Bizarres: 1. Captain White, Mr. John Ward. 2. Pilot, Mr. Adams. 3. Polyphemus, Mr. Houghton. 4. Lord Milton, Mr. Hudson. 5. Strong's King, Mr. Harpham. 6. Grandeur Magnifique, Mr. Parkinson. 7. Marshal Soult, Mr. Turner. 8. Albion, Mr. Edwards. 9. Optimus, Mr. Turner. 10. Emperor of Austria, Mr. Houghton. 11. Sir Thomas, Mr. Marsden. 12. Duke of Clarence, Mr. Battersby.

Feathered Byblœmens: 1. Gibbons's Seedling, Mr. Battersby. 2. Ditto, Mr. Thorniley. 3. Black Baguet, Mr. Houghton. 4. Kosciusko, Mr. G. W. Hardy. 5. Lady Stanley, Mr. Heap. 6. Chel-laston Seedling, Mr. Parkinson. 7. Lord Gough, Mr. Nunnerley. 8. Lord Denman, Mr. Astle. 9. Seedling, Mr. Hudson. 10. Byzantium, Mr. Edwards. 11. Sancta Sophia, Mr. Harpham. 12. Lanca-shire Hero, Mr. Prescott.

Flamed Byblœmens: 1. Queen Charlotte, Mr. Houghton. 2. Princess Royal, Mr. Allestree. 3. Primo Bien du Noir, Mr. Edwards. 4. Lord Denman, Mr. Spencer. 5. Surpass le Grand, Mr. Parkinson. 6. Madonna, Mr. G. W. Hardy. 7. Grand Turk, Mr. Hudson. 8. Surpass le Grand, Mr. Parkinson. 9. Incomparable Grand, Lakin and Son. 10. La Bien Amie, Mr. Godfrey. 11. Duchess of Sutherland, Mr. Page. 12. Atlas, Mr. Prescott.

Feathered Roses: 1. Aglaia, Mr. Haines. 2. Heroine, Mr. G. W. Hardy. 3. Light Baguet, Mr. Lymbery. 4. Comte de Vergennes, Mr. Harpham. 5. Hero of the Nile, Mr. Hudson. 6. Lady Middleton, Mr. Wasnidge. 7. Napoleon, Rev. S. Creswell. 8. Agnes (seedling), Rev. S. Creswell. 9. Princess Sophia (Goldham), Mr. Thorniley. 10. Anastasia, Mr. Adams. 11. Heroine, Mr. Houghton. 12. Lady Crewe, Mr. Marsden.

Flamed Roses: 1. Triomphe Royale, Mr. G. Small. 2. Aglaia, Mr. T. Allestree. 3. Camilla, Rev. S. Creswell. 4. Lady Jane Grey, Mr. Adams. 5. Seedling (Camilla), Mr. J. Battersby. 6. Catalina, Mr. Turner. 7. Lady Lilford, Mr. Nunnerley. 8. Fanny Cerito, Mr. Parkinson. 9. Seedling (Isis), Mr. J. Battersby. 10. Louis Quarto, Mr. Parkins. 11. Vesta, Mr. Nunnerley. 12. La Vandikken, Mr. Lymbery.

For the best Three Breeder Tulips, one of each Class.—1. Mr. Marsden, Derby: Pilot, Catherine, and Princess Royal. 2. Mr. Adams, Derby: Polyphemus, Lady Stanley, and Van Amburgh. 3. Mr. James Parkins, Derby: Pilot, Amelia, and Orleans. 4. Mr. Astle, Melbourne: Pilot, Lady Stanley, and Lord Denman. 5. Mr. Heap, Sandbach: Marcus Manlius, Zillah, and Godet Parfait.

Single Specimens, in Classes.—*Bizarre Breeders*: 1. Pilot, Mr. Adams. 2. Gibbons's No. 2, Mr. W. H. Hardy. 3. Polyphemus, Mr. G. W. Hardy. 4. Sobraon, Mr. Battersby. 5. Hamilton, Mr. Astle. 6. Merit, Mr. James Parkins. 7. Cossack, Mr. Battersby. 8. Seedling, Mr. Battersby. 9. Janus, Mr. Nunnerley, jun.

Byblæmen Breeders: 1. Venus, Mr. James Parkins. 2. Van Amburgh, Mr. Marsden. 3. Unknown, Mr. Adams. 4. Gibbons's 45, Mr. G. W. Hardy. 5. Annot Lyle, Mr. Marsden. 6. Miss Forrest, Mr. Nunnerley, jun. 7. Princess Royal, Messrs. Lakin and Son. 8. Violet le Grande, Mr. Marsden. 9. Lord Denman, Messrs. Lakin and Son.

Rose Breeders: 1. Lady Stanley, Mr. Adams. 2. Lady Leicester, Mr. Astle. 3. Lady Stanley, Mr. Marsden. 4. Lady Jane Grey, Mr. Adams. 5. Breedon Gem, Mr. Battersby. 6. Lord Derby, Mr. Lymbery. 7. Princess Alice, Mr. G. W. Hardy. 8. Seedling, Mr. G. W. Hardy. 9. Fanny Cerito, Mr. Parkinson.

NATIONAL FLORICULTURAL SOCIETY, JUNE 26.—NEW SEEDLINGS.—*First Class Certificates* were given to the following:—

Pelargonium.—*Optima*, from E. Foster, Esq. Upper petals dark, edged with fiery crimson; lower petals deep rose, with a crimson blotch on each. Excellent form.—*Optima, Pink*, from Mr. Turner. Flower large, good round petal, smooth edge, and pure white. Well up, and fine form.

Certificate of Excellence.—*Pelargonium Ariadne*, from E. Foster, Esq. Upper petals dark, edged with rose; lower petals pale rose, and centre of flower white.—*Enchantress*, from E. Foster, Esq. Upper petals dark, edged with rosy-pink; lower petals light, streaked with pink. Flower pure white centre.—*Rubens*, very much like *Optima* in colours and form, but the blotches on the lower petals are more distinct, and renders it more beautiful.

Fancy Pelargoniums.—*Richard Cobden*, from Mr. Ambrose. It is very like Statniski in form and habit, but a lighter flower, and will always be admired. It received a Recommendation.—*Lady Emma*, from Mr. Lockner. White and rosy-lilac, large, and produced in profusion. Very pretty. Received a Recommendation.

Pansies.—*Kossuth*, from Mr. Rogers, of Uttoxeter. Eye yellow, surrounded with blue rays, and its ground colour of the richest black.

A Certificate of excellence was awarded.—*Swandown*, from Mr. Turner. It has been previously noticed. A Certificate was awarded.—*Pandora*, Mr. Hunt's. An excellent variety.—Hunt's *Rotunda* and Turner's *Black Diamond* are defective in size.

Verbena.—*Orlando*, from Mr. Smith. A blue lilac, flowers of medium size. A Certificate awarded.

Pelargonium.—*Attraction*, from Mr. Turner. A bright-coloured variety; likely to be useful as a showy kind for the market.

Gloxinia alba grandiflora, from Mr. E. G. Henderson, also *G. grandis*, very fine; and *Escholzea alba*, a white variety.

MEETING HELD ON JULY 10.—On this occasion there was a large attendance, and the following flowers had awards:—

Picotees.—*Cassandra*, petals of good substance, but scalloped, which disfigures it so as to be worthless.—*Diadem*, a large flower, heavy edged; but its bars and spots are striking blemishes.

Pink.—*Titus*, from Mr. Edwards. A large flower, very showy.

Gladiolus Rosamondii, from Mr. Staines. A brilliant scarlet, with white ribs. Very pretty.

Fuchsias.—*Diamond*. The sepals reflex very much, and fully exhibit the large corolla. A pretty addition.—*L'Elegant*. Tube and sepals white, with deep pink corolla. Not equal to some others out.

Verbena.—*National*. Flowers a dull red, but a good trusser.

Purple Rival was recommended.

There were a number of other plants and flowers exhibited; but they were not equal to many others previously sold out.

STAINES HORTICULTURAL SOCIETY.—The recent exhibition of plants, &c., was a considerable advance upon previous ones, and highly creditable to all concerned. The best-grown Balsams we have seen for some years were exhibited; the plants were robust, in fine bloom, about as broad as high, and the varieties excellent. The second-best grown six were all alike as to variety; and it being stated in the schedule *six varieties*, plants of less merit as to management obtained the prize. Pelargoniums, Roses, collections of Greenhouse and Stove Plants, as well as Florists' Flowers, were of excellent character.

PICOTEE SEEDS.—Having in the year 1847 saved more Picotee seed than I could conveniently sow the succeeding season, I tried the following experiments, with the view of ascertaining if I could preserve its vitality for some years:—I dried some river-sand in an oven; when cold, I mixed some of it with the seed, and filled a small phial with the mixture, corking it down tight, wrapped it in paper, and placed it in a drawer. This season I entrusted it to a friend to sow, and I understand that he has obtained a crop of fine healthy plants. I took the hint from having learned, some time back, that earth raised many feet from the surface, on being exposed to the action of the atmosphere, had produced several plants of new varieties; it therefore struck me that, if I could exclude the air, light, and moisture from the seed, it might probably retain its vitality, and I think the experiment has verified the correctness of my idea.—*C. N. R.* (*Gardeners' Chronicle*.)

ROSES.—The following Roses were budded and grafted on the

Manettii stock, in the summer of 1850 and spring of 1851:—Standard of Marengo, twenty plants, budded from 15th June 1851, from a plant that flowered in the greenhouse. Not a bud has failed, and the plants are now (16th July) two feet six inches in height, and covered with bloom. Princess Clementine, buds and grafts, three feet high; Moss Lanei, ditto, three feet; ditto, Comtesse de Murinais, four feet; ditto, Unique de Provence, two feet; ditto, White Bath, three feet; ditto, Crested, three feet to four feet; Géant des Batailles, buds and grafts, eighteen inches, and densely covered with bloom; Harrisonii and Persian Yellow Briar, from three to four feet; Bourbon Dupetit Thouars, four feet; Louis Bonaparte, buds and grafts, three feet; Julie Krudner, a dwarfish grower at all times; not a plant failed: it was grafted April, 1851, and is now eighteen inches high, and covered with bloom, together with many other kinds.—*Dillistone and Co., Sturmer Nurseries, Halstead.*

ARTIFICIAL FLOWERS.—“Lucy” may readily obtain instructions in the art of wax-flower making, for now there are many teachers; but the making of the talc flowers, as shown at the Great Exhibition, is, we are told, a secret. Artificial flower making is by no means so modern an art as you seem to consider, for in the Talmud, or Gemara, is this legend:—“As Solomon sat surrounded by his court, at the foot of the throne stood the inquisitive Queen Sheba; in each hand she had a wreath of flowers, the one composed of natural, the other of *artificial* flowers. Art, in the labour of the mimic wreath, had exquisitely emulated the lively hues and the variegated beauties of nature, so that, at the distance it was held by the queen for the inspection of the king, it was deemed impossible for him to decide, as her question imported, which leaf was the *natural*, and which the *artificial*. The sagacious Solomon seemed *quite posed*. Yet to be vanquished, though in a trifle, by a trifling woman, much irritated his pride: the son of David—he who had written treatises on the vegetable productions, ‘from the cedar to the hyssop’—to acknowledge himself outwitted by a *woman*, with shreds of *paper* and *glazed paintings*! The honour of the monarch’s reputation for divine sagacity seemed diminished; and the whole Jewish court looked solemn and melancholy. At length an expedient presented itself to the king, and, it must be confessed, worthy of the great natural philosopher. Observing a cluster of bees hovering about a window, he commanded that it should be opened; it was immediately opened, the bees rushed into the court, and immediately alighted on one of the wreaths, while not a single one fixed on the other. The decision was not then difficult; the learned rabbins shook their beards in rapture, and the baffled Sheba had one more reason to be astonished at the wisdom of Solomon.” This would make a pretty poetical tale. It would yield an elegant description and a pleasing moral—that the bee only rests on the natural beauties, and never fixes on the painted flowers, however inimitably the colours may be laid on.—*D’Israeli’s Curiosities of Literature.*

LOVE OF FLOWERS.—The love of flowers seems a naturally implanted passion, without any alloy or debasing object as a motive. The cottage has its Pink, its Rose, its Polyanthus; the villa, its Geranium, its

Dahlia, and its Clematis. We cherish them in youth, we admire them in declining days; but perhaps it is the early flowers of spring that always bring with them the greatest degree of pleasure; and our affections seem immediately to expand at the sight of the first opening blossom under the sunny wall or sheltered bank, however humble its race may be. In the long and sombre months of winter, our love of nature, like the buds of vegetation, seems closed and torpid; but, like them, it unfolds and reanimates with the opening year, and we welcome our long-lost associates with a cordiality that no other season can excite, as friends in a foreign clime. The Violet of autumn is greeted with none of the love with which we hail the Violet of spring; it is unseasonable; perhaps it brings with it rather a thought of melancholy than of joy; we view it with curiosity, not affection; and thus the late is not like the early Rose. It is not intrinsic beauty or splendour that so charms us, for the fair maids of spring cannot compete with the grander matrons of the advanced year; they would be unheeded, perhaps lost, in the rosy bowers of summer and of autumn; no, it is our first meeting with a long-lost friend, the reviving glow of a natural affection, that so warms us at this season. To maturity they give pleasure, as a harbinger of the renewal of life, a signal of awakening nature, or of a higher promise. To youth, they are expanding beings, opening years, hilarity and joy. There is not a prettier emblem of spring than an infant sporting in the sunny field, with its osier basket wreathed with Butter-cups, Orchises, and Daisies. With summer flowers we seem to live as with our neighbours, in harmony and good-will; but spring flowers we cherish as private friendships. — *Journal of a Naturalist.*

NEW TREES.—It may be interesting to the lovers of fine evergreen trees to hear that his Royal Highness Prince Albert planted the largest saleable plant in England, of the Chilian Arbor-vitæ (*Libocedrus Chilensis*), in the gardens here, to commemorate his first visit to Shrubland Park; that this noble evergreen tree attains the height of from 60 to 100 feet on the Andes of Chili; and that, although it has been known to botanists for some time, from the accounts of travellers and dried specimens, and also with *Libocedrus tetragona*, as the celebrated *Alerce* of Chili, so much valued for the excellence of its timber, it was only last season that the first seeds of it were procured in quantity by Mr. Low, nurseryman, at Clapton, near London—the only importer of it—and that through the exertions of a once Suffolk gardener, Mr. Thomas Bridges, to whose memory Sir W. Hooker dedicated the genus *Bridgesia*. It thus turns out, singularly enough, that the first plant from these seeds should be planted in Mr. Bridges' native county; and that, too, by the most distinguished patron of science in this or in any other country. Mr. Bridges advises that this splendid tree should be planted over a dry bottom, and I can vouch for that condition having been fulfilled here to the letter. He also advises that very young plants of it should be slightly protected for the first winter or two, and, of course, we shall attend to his instructions. But Dr. Lindley and Sir W. Hooker agree in considering it as hardy as the

Arancaria imbricata from the same country. Dr. Lindley, writing on this and the other Chilian Spruce, *Libocedrus tetragona*, says of them, "No doubt they are among the finest Conifers in the world."

After planting the Chilian Libocedar under the royal standard, which waved over our heads from the summit of the Albert Tower, a recent pile erected from the designs of Mr. Barry, his Royal Highness opened a conversation on the recent divisions into which the Conifers have been arranged by Endlicher and other botanists, and evinced such a thorough knowledge of the different sections as surprised even an old gardener, to say nothing of the workman-like manner in which he handled the silver-mounted spade in the act of planting this fine tree, a biography of which had been prepared for his perusal. It turned out that his Royal Highness had little need of such aid respecting any of the recently-introduced trees to this country. A gentleman present having expressed a wish that his Royal Highness might live to see the tree he had planted rear its head as high as the top of the flag-staff close by, he immediately instanced, in reply, the rapid growth of several species of Cypresses, and, among the rest, an avenue of Cypress near the city of Mexico, where some of the trees have attained the enormous height of nearly 300 feet. Altogether his Royal Highness remarks, conversation, and questions about our craft have put some of us here to the blush; and I only wish that I could say or write in the same strain, so as to induce our rising race of gardeners to study, more than they usually do, the geography of the plants they cultivate, and also their botanical arrangement, according to the best authors. Depend upon it a young gardener has only put his foot on the first step of the ladder when he has received his gold medal for a collection of well-grown specimens.—*D. Beaton.* (*Cottage Gardener.*)

VICTORIA HOUSE FOR WATER PLANTS, in the Nursery of Messrs. Knight and Perry, King's-road, Chelsea.—This structure has been noticed in a former number; and on calling to see the plants of *Victoria regia* we were much delighted with the large handsome house, and more so with the plants growing and blooming so admirably in the large tank. It contained not only plants of the *Victoria regia*, but fine healthy specimens of the following:—

Nymphæa rubra.—The flowers are *eight inches* across, of a *rich crimson*, having a tinge of purple. The leaves, too, are very singularly dark coloured. It is exceedingly handsome, and very showy.

N. odorata.—The flowers are six inches across, white, with a large yellow centre of stamens, and delightfully fragrant.

N. maxima.—Flowers six inches across, white, with a centre of yellow stamens.

N. micrantha.—Flowers four inches across, white, with a centre of pale sulphur stamens.

N. dentata.—Flowers eight inches across, white, with a centre of yellow stamens.

N. pygmæa.—Flowers two inches across, white, with yellow centre. These were in perfect health, and blooming beautifully.

An excellent plant-grower recently visited Messrs. Knight and

Perry's; and he observes, in a communication sent to the *Gardeners' Chronicle*: On entering the Victoria-house, and seeing the plant in bloom,—

“ I cannot help stating that I felt rather disappointed on first seeing the flower of the Victoria, after the marvellous display made by its foliage. Such a leaf seemed to promise much; and measuring the bloom by the proportion that *Nymphaea* flowers bear to their leaves, one might have reasonably expected the Victoria to produce a flower as large as the top of a bushel basket; and if it had been rich in colour, in addition to this large size, it would have been still more desirable; however, with all its beauties and all its shortcomings, it is fair indeed; but its ephemeral life extends only to a day; the morrow dawns only upon its decline, its work is finished, and the foot-prints of decay are stealing over its loveliness. In colour, too, it suffers by comparison with aquatics of less pretensions, for I need only refer to one well-known genus, the *Nymphæas*—plants of the easiest culture, where there is room and warmth afforded them—to show that the tanks erected for the Victoria may be greatly enriched by a margin of *Nymphæas*. A square yard or two of space is all that they require; in fragrance they are not to be surpassed; in colour, some are of the purest white, others are of the fairest shades of blue, whilst one or two are crimson.

“ On visiting the new Victoria-house at Messrs. Knight and Perry's the other day, I was handsomely rewarded, after the many long miles I had travelled to see the ‘ lions of London,’ with a sight of by far the loveliest flower I had ever set my eyes upon. It grew in a corner of the tank, and might be twenty-five feet from where I stood; it was a *Nymphæa*, with a flower about as long as my hand, possessing the colour of *Le Géant des Batailles Rose*, and, like all other plants or flowers that grow upon the brink of still water, or that float upon its bosom, it was reflected in the ‘ liquid element,’ and consequently counted double; therefore, if any one is at all disappointed, as I confess I was, in the flower of the *Victoria regia*, let him try a verge of *Nymphæas*, and he will not go unrewarded. I would also just hint to the London sight-seer, that a cab-hire of half-a-crown to Chelsea will not be thrown away in a visit to the nursery in question, where this beautiful plant is in bloom; and before I take leave of this subject, I would beg to remark that, as the *Victoria Lily* has raised the tanks to a dignified standing, as compared with what they were, the same dignity ought to be observed in the plants that are made to associate with this queenly flower.

“ The *Nymphaeas* are worthy of a place in every large tank; and those who can add *Nelumbiums*, will find that these three genera, well grown, will form such a selection as cannot be excelled by any aquatics in cultivation.

“ I was led to this remark by seeing in one place the gouty legs of *Pontederia crassipes*, and the light foliage of *Limnocharis Humboldtii*, floating under the heavy batteries of the *Victoria*, which seemed ready to swamp them with the next leaf that it unfurled.”—*Alex. Forsyth, St. Mary's Church, June 26.*—[Three thousand five hundred pounds have been voted by Parliament, to be expended in the erection of AN

AQUARIUM in the Royal Gardens, Kew, where we shall have water plants in perfection.—[EDITOR.]

MESSRS. WEEKS AND CO.'S NURSERY, KING'S-ROAD.—We recently visited this nursery, and were informed that the *Victoria regia*, Royal Water Lily, has been fully exposed in the open pond, night and day, for the last three weeks. It is growing and flowering most satisfactorily, the total number of blossoms it has produced being sixteen. The leaves are four feet across, and perfectly healthy; but as yet they have exhibited little inclination to form rims; their whole surface prefers laying quite flat upon the water. A new leaf develops itself about every fourth day, and a flower every third day; the appearance of the plant would indicate a likelihood of its blooming for some considerable time yet to come. The water in the basin is kept at between 80° and 90° , and the boiler from which this heat is derived also warms five houses and two pits of moderate size. About two dozen gold fish were introduced into the pond some short time ago, and they have since multiplied so abundantly, that the water literally swarms with their young, which all present the fine colour of their parents. Indeed so well do they succeed and breed in the warm water, that Mr. Weeks is of opinion they will ultimately almost pay the cost of heating it. We need hardly mention that this experiment points out another purpose to which waste steam might be employed both profitably and for pleasure. It is the Thames water in which the plant is growing at Chelsea; and we understand that it is the intention at present to widen the pond next year, and plant in it the various other kinds of tender Water Lilies. It may be worth notice, that the overflowings of this tank are collected into a cistern, from which tepid water can at all times be had for the purpose of watering plants with.

ROCKETS.—During a trip in France this month I saw in a garden at Fontenay aux Roses seven different sorts of Rockets, all of them distinct in habit, and very beautiful, viz., White, giant, growing five to six feet high, with immense spikes of flowers. White, medium size, usually cultivated in England, height about two feet. White, dwarf, also usual here, not more than one foot. Purple, about two feet high, an abundant bloomer, very double and showy, the colour of a dark purple candy tuft. Crimson, two feet high, rich and attractive, but the spikes not so large as the purple. Rose or Peach, same as we have in our gardens, but grown finer, probably owing to the climate. Yellow, very double and more compact in form, eighteen inches: this last, I think, was not a Rocket, but a double-flowering *Erysimum*. I could have had slips of the above, as the owner was a market-gardener; but my route prevented, as it then lay into the south of France.—*S. P. Rushmere.*

ON THE MODE OF MAKING BASKETS FOR ORCHIDEOUS PLANTS, AND THE BEST WOOD FOR THAT PURPOSE.—Blocks or baskets are most suitable for true air-plants, such as *Vandas*, *Saccolabiums*, *Aerides*, *Angræcums*, *Phalænopsis*, &c.; when planted in baskets or on blocks they send out their roots much stronger into the air, and suck up the moisture; whereas, if their roots are covered too much, they are very apt to rot. Various materials are used for forming baskets; some are

made of copper wire, which is very durable, but I prefer those made of wood, though they do not last so long. They look better, and are more suitable for the roots of the plants to cling to. The best kind of wood is maple, or hazel, and the best baskets those of a square shape. The wood should be cut into lengths according to the size of basket required, but do not make them too large: there are two objections to this—one is, that they take up much space; the other, that the plants do not require much room. After the wood is cut into proper lengths, the pieces should be bored within one inch from the ends, taking care to have all the holes bored the same distance; there should be four lengths of copper wire, one for each corner; the wire should be put through each piece of wood, and brought up to form the handle for suspending the plants from the roofing. Iron wire should never be used in making baskets, for it is probably injurious to the plants. The best kinds of wood for blocks are acacia, apple, pear, plum, or cork, if it can be obtained. The wood should be cut into lengths, according to the sizes required. Get some nails, and drive one at each end, with some copper wire to form the handle; wind the wire round each nail, and have the handle about ten inches high. Small copper nails are the best by which to fasten the plants on the blocks.—*W. Williams.*

THE HORTICULTURAL SOCIETY'S EXHIBITION, HELD AT CHISWICK JULY 19TH, 1851.—The day was excessively wet, but in defiance of the pelting rain 9,350 visitors attended. There was an unprecedented variety of specimens shown, but not one too many; the display of flowers and fruits was truly noble, and an inspection of the whole would have amply repaid for a journey from the most remote parts of this kingdom. We have not space at present to admit of more remarks, but to give the lists of the superb *Carnations* and *Picotees* shown. They were exhibited *in pots*, with *cards*, and with *admirable effect*.

Amateurs.—*Best Twelve Varieties of Carnations, in pots*: Open class: 1st prize to C. P. Lochner, Esq., Warwick House, Paddington, for President, Ariel, Sarah Payne, Paul Pry, Squire Trow, Lady Ely, Edgar, Caliban, Lord Rancliffe, Count Pauline, William the Fourth, and Prince Albert; 2nd, to J. W. Newhall, Esq., Woolwich, for William the Fourth, Mercutio, Great Northern, Twyford's Perfection, Brooks's Flora's Garland, Lord Rancliffe, Lydia, Henry Kirke White, Rainbow, Queen Victoria, Gameboy, and President; 3rd, Mr. Norman, Woolwich, for Holliday's Thomas Hewlett, Willmer's Middlesex Hero, May's Duncan, Brook's Flora's Garland, Count Pauline, Queen Victoria, Prince Albert, Beauty of Woodhouse, Sir Joshua Reynolds, Queen Victoria, Willmer's Telemachus, and Lord Rancliffe. Extra prize to Mr. Bragg, Slough, for Queen Victoria, Squire Trow, True Briton, Earl Grey, Sarah Payne, Brook's Flora's Garland, Earl Spencer, Duncan, Count Pauline, Hotspur, Prince de Nassau, and Prince of Wales. Extra prize to Mr. Willmer, for Duke of Wellington, Kay's Majestic, Duke of York, Earl Spencer, Hero of Middlesex, Squire Trow, Holmes's Count Pauline, Halfacre's No. 32, Lord Morpeth, Willmer's Conquering Hero, Willmer's Defiance, and Willmer's Endymion.

Picotees in pots.—1st prize to C. P. Lochner, Esq., for Isabella,

Rosalind, Lady Harriet More, Lord Nelson, Venus, Leader, Portia, Amethyst, Ann Page, Lady Dacre, Mrs. Barnard, and Regina; 2nd, to J. W. Newhall; Esq., for Lady Alice Peel, Dodwell's Alfred, Isabella, Lord Nelson, Miss Rosa, Gem, Mrs. Bevan, Mrs. Norman, Venus, Proconsul, Leader, and Jessica; 3rd, to Mr. Norman, for Queen Victoria, Dodwell's Alfred, Cox's Regina, Robinson's Elizabeth, Mrs. Norman, Headley's Venus, Leader, Garrett's King, Mrs. Barnard, Marris's Prince of Wales, Norman's James II., and Norman's Lord Nelson. Extra prize to Mr. Bragg, for L'Elegant, Mrs. Norman, Mrs. Bevan, Leader, Mrs. Buckland, Lord Nelson, Regina, Enchantress, Amethyst, Lady Chesterfield, and two others. Extra prize to Mr. Willmer, for Prince Albert, Giddin's Teaser, L'Elegant, Emperor Bony, Miss Browning, Masterpiece, Leader, Lady Smith, Willmer's 270, May's Sebastian, Willmer's Prince Royal, and Ophelia.

Yellow Picotees in pots, exhibited by Mr. Norman:—Charles X., Romulus, Queen Victoria, Hoyle's Mount Etna, May's Fairy, and Barraud's Euphemia. By Mr. Willmer, collection of Yellow Picotees, cut blooms, 20 varieties, as follows: Topaz, Fairy, Countess of Ashburnham, George III., Queen Victoria, Willmer's Goldfinder, Charles X., La Petit Thomas, May's Malvolio, Willmer's Goldfinder, Willmer's Romulus, Willmer's No. 318, La Petit Reine, L'Empereur, Willmer's Queen, Willmer's No. 282, Braggs's Princess Alice, Queen, La Sapene, Prince Albert, William Catleugh.

WATERING PLANTS IN POTS.—Simple as this seems, nothing in the culture of such plants is more important or requires so judicious management and experience than watering a plant when it wants it, and passing over it when it does not require it. The rule has often been given and explained, "water a plant *thoroughly* when it needs it;" that is, let the moisture reach every fibrous root, then wait patiently till your services are again *necessary*, and give a similar supply. Where the soil is fine and the roots are delicate fibrous ones, always use a fine rose, or a small-sized spout, that allows the water to pass away gently, so as to prevent the surface being torn up. The finer the soil and the finer the fibrous roots, the more indispensable is this attention requisite. For larger strong kinds of plants, which have stronger roots, a coarser soil should be given, and in such cases a coarser rose to the watering can be used, or the water may be poured out of the spout without rose; but to prevent the soil being broken up and hollows be made at the surface, a small piece of tile or an oyster shell may be placed, upon which the water may be poured, and from which it will properly spread equally over the soil.—*A Practical Plant Grower.*



IN THE FLOWER GARDEN.

THIS month is the best time for propagating plants for turning out into beds next year; they get well rooted, and, having the leads stopped, are bushy plants by winter setting in, and are well prepared to stand the effects of winter without injury; but before it is proceeded with to any material extent, it is as well that a proper arrangement should be made as to what number of plants are required in another season. Examine the effects of colours; investigate their combinations and contrasts, so as to improve and vary the arrangement another season. To keep up the interest of a garden, especially if planted on the grouping system, requires some considerable skill and forethought, to vary the scene in each succeeding year, so as to prevent the arrangement becoming monotonous. Thus if warm colours prevail to any material extent this season, it would be as well to introduce a majority of cold colours next season, and to edge each bed of the latter with its complimentary warm colour. Indeed, the system of edging beds with contrasting colours imparts a highly interesting feature, especially to such as may be distributed over the lawn without any methodical arrangements.

FLORISTS' FLOWERS.—*Auriculas*, or *Polyanthus*: seedlings that have hitherto been kept in pans or boxes may now be potted singly in small pots; such as were potted earlier will, perhaps, require shifting into a larger size. Plants which were potted in May should have the surface-soil stirred occasionally. *Carnations* and *Picotees*: the principal operation this month will be the layering, which should be proceeded with, and completed as soon as possible. Water over head with a fine rosed pot as often as necessary. *Pinks*: some florists layer the strongest shoots, and pipe the second crop of weaker ones, contending that these last root much more freely. Be that as it may, whether pipings or layers, those intended for next year's blooming are better planted out now, or at least as soon as they are fairly rooted. The beds should be made of well-decomposed dung, sound loam, and leaf-soil, equal parts; in fact, they ought to be rich, as there is little danger of the Pink discolouring. The reason why we prefer planting at this time is that the plants get well established, stand the winter better, and lace much more correctly than when the planting season is deferred. The surplus stock may be put out on store beds. A second crop of pipings may be put in, where it is desirable to increase the stock. *Cinerarias*: as the plants which have been turned out into the open border throw up suckers, they should be carefully removed, potted into small pots, and placed in a cool shady frame until sufficiently established. Sow seed in a light rich soil, and pot off the plants

as soon as they have attained sufficient size. *Dahlias*: continued care will be necessary in thinning out laterals as they appear, and securing such as are left against being broken by wind. Lighten up the soil around the plants with a fork, carefully avoiding injury to the young fibres. Towards the middle of the month add a layer, one or two inches deep, of cow-dung around the plants; avoiding such application, however, to all those with large or coarse flowers. *Tulips*: off-sets should be planted towards the end of the month. The bed should, therefore, be prepared, and consist of river-sand and fresh loam in equal portions; plant the young bulbs from two to three inches deep, and let the surface of the bed gently slope from the middle. *Hollyhocks*: where increase is desired, as soon as the flowers fade, the stems should be cut down, and the surrounding surface of the soil stirred up, adding thereon a little well-decayed manure; this will induce them to shoot up vigorously, and afford a numerous division; or they may be increased by cuttings. See articles in last volume. *Pelargoniums*: if the plants cut down last month are not already potted, they should be done at once; some of the cuttings, too, which were potted early, may require another shift. Seed should be sown in pots of light rich soil. *Rose* budding should be completed as early as possible. *Pansies*: continue to propagate, and save seed from the best varieties. *Chrysanthemums* should be re-potted into larger pots for blooming, using a rich soil, and giving an abundant supply of water.

IN THE GREENHOUSE, COLD FRAME, &c.

Light is now more than usually important to elaborate and consolidate the juices before the winter arrives; for unless every means is taken to accomplish this, we may expect sad failures during the next winter among our tender and more valuable exotics. To protect them from rain, and to expose them to light, should now more than ever be our earnest study, in regard to choice specimens, especially those which have been recently shifted, and which are in vigorous growth. Almost all the soft-wooded stove-plants that can be grown into large specimens by one or two seasons' growth, like *Pelargoniums*, may be conveniently treated like that popular tribe; cut them back after they are done flowering; keep them dry for a week or ten days, and then shake them out of the mould; shorten their large roots, and pot them in light rich compost in a small pot, as their roots can be got into. Where a large conservatory is to be kept gay all the year round, this class of stove-plants is by far the most useful to cultivate, as you can always winter them in little room; whereas fine woody plants will soon get too large, and take some years before they are fit to appear in a good conservatory. Another great advantage is, that as soon as you get these plants established in the new pots, they will only require to be kept in that condition through the winter, and therefore will not require more than 50° of heat for three or four months.

Greenhouses and frames, while they remain empty, should be thoroughly cleansed, repaired, whitewashed, and painted. Cleanliness is not only essential to their appearance and preservation, but to keep the plants in a healthy condition.



1 *Berberis Darwinii*
2 *Escallonia macrantha*.



FLORICULTURAL CABINET

SEPTEMBER, 1851.

ILLUSTRATIONS.

1. BERBERIS DARWINII.

THIS very handsome EVERGREEN BERBERRY has been introduced into this country by Messrs. Veitch. Their collector, Mr. Lobb, found it in South Chili. It was first discovered by Mr. Darwin, and subsequently by Mr. Bridges, Mr. Lobb, and others. It forms a *bushy shrub*, growing from three to five feet high, and proves to be *quite hardy*. It is a free-growing plant, and flourishes out-doors in Messrs. Veitch's nursery. The leaves are about three-quarters of an inch long, of a dark glossy green, and produced copiously. The racemes of flowers are borne in abundance, and their footstalks are beautifully tinged with red, which contrast very prettily with the blossoms. It is considered to be the best *hardy evergreen shrub* which has been imported into this country for many years. It merits a place in every shrubbery. We are informed it succeeds well in a greenhouse, and blooms most charmingly in pots in spring. We saw a fine plant of it in a pot, recently exhibited by Messrs. Veitch, which was in profuse bloom.

2. ESCALLONIA MACRANTHA.

A handsome HARDY EVERGREEN BUSHY SHRUB, growing from four to six feet high. It was introduced by Messrs. Veitch from Chili. When out of bloom it resembles a smallish-leaved Arbutus. It grows freely either as a bush or trained against a wall, blooming from May to the end of summer, and does best in dry situations. It is a valuable acquisition, and deserves a place in every collection of hardy shrubs.

NOTES ON NEW OR RARE PLANTS.

ÆSCULUS HIPPOCASTANUM FLORE-PLENO. DOUBLE-FLOWERED HORSE CHESTNUT.—This handsome variety is but little known. It is

very ornamental, vigorous as a common sort. The panicle of flowers is equally so, and they are as double as those of the best Hyacinths, of a pale blush, with a deeper-coloured centre. It well merits a place wherever it can be admitted. Plants have been imported from the Continent.

ALLAMANDA NERIIFOLIA. OLEANDER-LEAVED.—Messrs. Lucombe and Pince obtained this magnificent species from the Continent. It forms a handsome erect evergreen shrub, and the original plant is now but three feet high. It commenced blooming when but half this height, and the first panicle or cluster of flowers consisted of thirty blossoms. The panicles are terminal. It blooms freely when treated as a pot plant, and trained round a framework. A mixture of light loam and leaf-mould, with a good drainage, suits it, and, when growing, it requires a liberal supply of water. It grows and blooms freely. The flower is between funnel and bell shape, the tube being wide, an inch long, and the expanded five-parted limb is nearly three inches across, of a deep golden-yellow, elegantly streaked with orange. It is one of the finest hot-house plants, taking up little room, and producing an elegant display. It ought to be in every stove, and it probably would succeed well in a warmish greenhouse. (Figured in *Bot. Mag.*, 4594.)

ARBUTUS MOLLIS. SOFT-LEAVED.—A handsome evergreen *shrub*, or perhaps *tree*, a native of Mexico, which flourishes in a warm greenhouse, but is tolerably hardy. The leaves are leathery, of the form of our old *Arbutus* of the shrubbery. The flowers are borne in a terminal panicle, each branching raceme of blossoms being about three inches long, and each raceme bearing from fifteen to twenty blossoms. Each blossom is about the size and form of the common *Arbutus*, white or greenish-rose colour. A very neat shrub, well deserving to be in our collections. Mr. Van Houtte sent the plant into this country, and no doubt can supply it. (Figured in *Bot. Mag.*, 4595.)

BERBERIS UMBELLATA. (Synonyme, *B. gracilis*; *B. angulosa*.)—This very pretty hardy species of Berberry forms a bush about four feet high. It is an evergreen, whose leaves are about half an inch broad and two inches long, borne in clusters of five or six together. The flowers are yellow, produced in drooping racemes, each having about twelve blossoms. It is a good plant for the back of a rockwork or bank. When done blooming, its profusion of purple berries render it a pretty object for a long period. It is a native of the Himalayan Mountains; well deserving a place in the shrubbery.

CATHCARTIA VILLOSA.—In the recent travels of Dr. Hooker he found this handsome plant in Sikkim-Himalaya, and named it, in compliment to J. F. Cathcart, Esq., late Judge of Tirrhoot, who devoted his time to the illustration of the botany of that neighbourhood, and superintended the execution, by native artists, of upwards of seven hundred folio coloured plates of Himalayan plants. The present plant is of the Poppy tribe. It is a perennial rooted plant, and has bloomed in an airy frame, in pots, in the Royal Gardens of Kew. The flower-stem is nearly eighteen inches high. Each flower is about two inches across, of a rich yellow colour, its numerous brown anthers contrasting

with the petals has a very interesting and beautiful appearance. The leaves are vine-shaped, three inches across. (Figured in *Bot. Mag.*, 4596.)

CLEMATIS AZUREA GIGANTEA LULONI.—This variety was exhibited at the floral exhibition held at Bordeaux. It is an hybrid, raised by M. Lulon, gardener at Libourne. It is *much superior* to any other Clematis, both in its size and blue colour. A silver medal was awarded to M. Lulon.

DEUTZIA GRACILIS.—A native of Japan, but quite as hardy as *D. scabra*. It forms a shrub in its native country, six to eight feet high. It blooms very profusely. The plants which are in the nurseries of this country are but about two feet high, and even such bloom freely. The flowers are borne in terminal panicles along the sides of the branches. Each blossom is half an inch across, and about twenty of them in each panicle, and of a pure white. It is a charming deciduous shrub, and merits a place in every shrubbery. (Figured in *Magazine of Botany*.)

LABICHEA DIVERSIFOLIA.—This very pretty greenhouse shrubby plant is from the Swan River colony, where it was found by Preiss in rocky places near the Canning River, in the Darling range, on the west side of New Holland. Mr. Glendinning, nurseryman, of Turnham Green, had a plant in bloom last spring. The leaves are narrow, an inch long, sharp pointed, and the plant has a very neat appearance. The flowers belong to the Pea tribe, and in form like those of the yellow-flowered *Cassia*. Each blossom is about three-quarters of an inch across, of a rich bright yellow colour, and red anthers, which produce a pretty contrast. The plant blooms very freely, and the blossoms are produced on the side shoots, from four to six on each raceme. It is very pretty, and well merits a place in the greenhouse. (Figured in *Paxton's Flower Garden*.)

LEUCOTHOE NERIFOLIA. OLEANDER-LEAVED. (Synonyme, *Andromeda neriifolia*; *A. crassifolia*.)—It was first found in tropical Brazil by Sellow, and afterwards by Mr. Gardner. It is a moderate-sized shrub, with leathery, oblong, evergreen leaves, about three inches long. The flowers are produced in racemes, each proceeding from the axil of the leaf, and having about twelve blossoms. The flowers are very fleshy, and nearly oval shaped, like some of the *Ericas* or *Andromedas* in form, of a rich scarlet, with a white limb. The stems of the raceme and flower-stalk are of a red colour. The entire plant is exceedingly neat, pretty, and showy. The *genus* in appearance is much like the *Andromedas*, and thrives in light peat soil, well drained. The present *species* should be placed in a cool shady house, or pit, especially during summer, for when exposed to full sun the plant is injured. It is in the nursery of Mr. Cunningham at Comeley Bank, Edinburgh, and it merits a place in every greenhouse or pit-frame. (Figured in *Bot. Mag.*, 4593.)

PELARGONIUM CONDERTI.—A variety, having *double* flowers, was presented at the floral exhibition recently held at Bordeaux, in France; they are of a pretty delicate rose colour, not having any blotch.

Messrs. Lawson, of Edinburgh, exhibited at the recent Caledonian Horticultural show a *double-flowered* Pelargonium, and a variety of *Erica Witmoreana* having double flowers.

PRIMULA SIKKIMENSIS.—Dr. Hooker sent seeds of this Primrose to the Royal Gardens of Kew, where the plant bloomed the last spring. It is stated to be the pride of all the Alpine Primulas, inhabits wet boggy places, at elevations from twelve to seventeen thousand feet, covering acres with a yellow carpet in May and June. The flower stem rises from one to two feet high, erect, bearing an umbel of golden-yellow flowers, about seven blossoms in each. The flower is about an inch across. It is, perhaps, the tallest Primrose in cultivation. (Figured in *Bot. Mag.*, 4597.)

SIPHOCAMPYLUS AMÆNUS.—From South America, and which is cultivated by M. Van Houtte. The plant is half-shrubby branching, having dark green leaves of the medium size. The flowers are produced in *long terminal racemes*, similar to the smaller-growing *Lobelias*, of a pretty orange-red colour, and the anthers form a yellow centre. Each blossom is about an inch long, and the five-parted end is, when expanded, about the same across. It is a very singular and handsome species, well deserving a place in the stove.

SPIREA DOUGLASSI.—Douglas discovered this fine species in North America, on the plains of Oregon. It is a charming hardy shrub of moderate growth, and a very free bloomer. The flowers are produced in a dense, terminal panicle, from four to six inches long, of a deep rose colour. The termination of the head of flowers is not in a *narrow* point, but has a *round* end. It is a very handsome shrub, and deserves a place in every shrubbery.

THYRSACANTHUS LILACINUS. (Synonyme, *Justicia lilacina*).—A stove shrub, from South America, which grows freely, blooms profusely and very ornamental throughout winter. (Figured in *Paxton's Flower Garden*.)

TRICHOPILIA COCCINEA. (Synonyme, *T. marginata*).—A beautiful stove Orchideous Epiphyte, from Central America. Sepals and petals narrow, nearly four inches long, buff tinged with red. The large wide tube of the labellum is white outside, and a rich deep carmine inside. Each blossom is about seven inches across. It has recently bloomed in the stove in the Horticultural Society's garden at Chiswick. (Figured in *Paxton's Flower Garden*.)

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 201.)

BY ORION.

THERE appears to have been a very dull season following the brilliant one (1840), lately described, for very few novelties appeared during the year 1841, and nothing of first-rate or lasting character. Mr. Foster's *LIFE GUARDSMAN* was, perhaps, the principal, and though

much cracked-up at the time, yet was by no means one of the best of this gentleman's flowers. His BEAUTY was a great novelty, being one of the first flowers having *deep veins* (with occasionally a blotch) on all the *lower petals*. These flowers have always been more or less popular, and, with OCCELLATUM of the present day, has nearly attained perfection. The same raiser's NYMPH was a flower remarkable for the purity of the throat, a quality which had hitherto been rare. RUBY, a very dark flower, a great improvement on JEWESS, and PRINCE ALBERT, complete the list. All the above of Mr. Foster's were sent out at two guineas, except NYMPH, which was priced at three guineas. Mr. Garth's flowers were BRIDESMAID, BRITANNIA, COMTE DE PARIS, a very high-coloured orange flower, CORONA, and DUENNA, which were all advertised at two guineas. A few other flowers of this year do not call for any attention, and are only mentioned to render the list complete; among them were Gaines's INCOMPARABLE, LITTLE WONDER, and PRINCE ALBERT; two raised by Catleugh, and named LORD MAYOR and LADY MAYORESS; MABEL, CRESSIDA, ARABELLA, and GEM OF THE WEST, raised by a Mr. Nairn, which was a model as regards form, though the colours were not striking. The whole of these were also advertised at two guineas; but, as stated before, the season was productive of little improvement as compared with the great step in advance attained during the year 1840. About this time the system of *exhibiting seedlings* for prizes came into vogue. Of the varieties sent out in 1841, only four obtained any reward at the show of 1840, which were NYMPH, BEAUTY, COMTE DE PARIS, and BRIDESMAID: so that this would afford a good proof that the year 1840 saw but little improvement or novelty. As stated in the last article, the brilliant success attending the season of 1840 caused many exhibitors and seedling raisers to redouble their exertions; and accordingly we find that in the season 1842, now about to be described, an immense number of novelties and good flowers made their first appearance, seven of which were rewarded as seedlings the previous year. They are distinguished by an (*) prefixed to their names, as will be the case with all varieties (hereafter named) which have been rewarded at any of the London exhibitions. *RISING SUN (Gaines) was the most celebrated flower of the year, and was priced at five guineas; it was of the form of the same raiser's KING, and much in the same way, but of a bright light orange-scarlet colour. The same grower also raised and sent out AMARANTH and *CAPTIVATION at two guineas; and DUCHESS OF KENT and *CAROLINE at three guineas. Mr. Foster's flowers were *PRINCE OF WATERLOO, a striking high-coloured flower, sent out at two guineas; JESSIE, at three guineas; AMULET, a small but very bright flower, one guinea; AUGUSTA, two guineas; BERTHA, which was, perhaps, an improvement on the same raiser's NYMPH, one guinea; COMUS, in the way of BEAUTY, but darker, two guineas; GIPSEY, two guineas; JEW, RHODA, and SELINA, thirty shillings each; also MEDORA, two guineas: this last variety was very novel in colour, and was the forerunner of many others in the same style, as, for instance, LEONORA, CLEOPATRA, and others. Mr. Garth's flowers were QUEEN OF FAIRIES, at three guineas; QUEEN OF BEAUTIES, DOUGLAS, EVADNE, EVELYN,

FLASH (figured in the CABINET at the time), JUBILEE, TOURNAMENT, WONDER, and WITCH, all at two guineas; the last named was an acquisition, a white with deep plum-coloured spots, and veined, the *beginning* of a class *now* very much improved, and at present represented by VIRGIN QUEEN, VILLAGE MAID, &c. Three other splendid and first-rate varieties also appeared, viz., CAMILLA, a very useful white; FAIR MAID OF DEVON, a showy pink; and GLORY OF JERSEY, all priced at three guineas. Mr. Lumsden also had his MADELINE, a very *free* blooming crimson variety, much grown even now, and CERITO, each priced at two guineas. Kinghorn's GRAND MONARCH was also sent out at this time at two guineas, and was a good selling flower; LADY COTTON SHEPPARD, one guinea; PRIORY KING, two guineas; and VANGUARD, three guineas, must suffice to complete this already extended list for this year.

From the above brief summary it will be seen that another great step was made in the onward movement, and served in some respect to compensate for the slow progress of the preceding season. Four only of them are marked as having prizes, the other three not being sent out until the following year. The grand improvement aimed at about this time, and with good success, was to produce *stiff flowers*, which did not *curve back*; and many of the varieties named above far exceeded all that had been produced before in this highly necessary quality. The year 1843 must be reserved for the next number.

CULTIVATION OF ACACIAS.

BY HORTULANUS, OF KEW, SURREY.

IT has been with pleasure I have noticed in the last three volumes of your Magazine numerous descriptive particulars of the lovely family of Acacias which are in the Royal Gardens of Kew, and which, during the blooming season, are not only beautifully gay with their profusion of yellow flowers of various hues, but the *very large greenhouse* is filled with a delightful perfume. The far greater number of them bloom from February to June; but there are a few which bloom from July to February.

The plants are interestingly pretty even when out of bloom. They flower, too, when small, with one or two exceptions, and are easily kept, by pruning, pinching off the leads, &c., to any desired size; and such plants bloom in proportionate profusion, as do the larger ones. Every greenhouse ought to have a selection of them; they are easy of cultivation and increase, and, growing quickly, soon become charming ornaments; and, what is acceptable, too, Acacias may be procured at the nurseries at a very cheap rate, and, once obtained, are easily kept. They are alike suited for the conservatory and greenhouse; and the family contains species suited to any height, from one foot to fifty feet or more.

When grown in pots, the more robust should have a less rich soil than the others, which checks the luxuriance, but does not render them less prolific in flowers. All require a good degree of pot-room, to

be well drained, and flourish in equal parts of rich loam, sandy peat, and well-rotted leaf-mould; the latter to be withheld from such as it is desired should not grow robust. The compost should not be sifted, but broken by the hand. In the growing season they require a liberal supply of water; but when the new wood is become firm, then a less quantity will only be necessary. The plants must be repotted as soon as the bloom declines; then the new wood begins to push which is to bear the next season's flowers; so that repotting just when about to push shoots, the new wood gets strengthened to bloom satisfactorily the following year.

Many of the kinds produce seed, and this provides a ready means of increase. If ripe seed is obtained by the end of August, sow it immediately in pots; and previously to doing so soak it in warm water, say 120°, and let them be in the water several hours before sowing, and the pot be placed in moist heat in preference. To increase them by cuttings, let the *new shoots* become just firm, or what is termed half ripe; then cut the portions close under a bud, and insert them in sand.

The following species are the most handsome, and merit a place in every collection:—

A. LINEATA.—Flower heads are rather small, a rich deep yellow, in vast profusion; the leaves are narrow, an inch long. This is particularly handsome, and ought to be in every greenhouse.

A. CELUSTRIFOLIA.—Flowers pretty sulphur, and in very dense panicles; leaves glaucous, two inches long.

A. PROMINENS.—Flowers a bright yellow, borne in profusion; leaf narrow, an inch and a-half long.

A. GRAVEOLENS.—Flowers nearly white; the leaves two inches and a-half long.

A. SOPHORÆ.—The flowers are produced in large branching heads, pale yellow, in profusion; leaves broad, lance-shaped, three inches long. A fine species.

A. VERTICILLATA.—Flowers a light yellow, and in profusion; leaves an inch and a-half long. Very handsome.

A. LONGIFOLIA.—Flowers a light yellow, the spikes being erect; the branches are literally full: leaves lance-shaped. It is a very beautiful species.

A. HYBRIDA.—Flowers a light yellow, globular. Pretty.

A. PRÆMORSA.—Flowers a pale yellow; a profuse bloomer.

A. PULCHELLA.—Flowers deep golden balls, very profuse; Mimosa-like foliage. A very beautiful species.

A. TRINERVATA.—Flowers a pale yellow, delicate and pretty; the leaves are narrow and an inch long. It is a handsome bushy plant.

A. DECIPIENS.—Flowers sulphur colour; the leaves are of a triangular form, half an inch across. The plant forms a neat bush.

A. ROTUNDIFOLIA.—The leaves are circular, a quarter of an inch across. It is a very neat bushy plant, the flowers are a bright yellow colour, and produced in profusion, and beautiful.

A. VESTITA.—The leaves are half an inch long. It is a very neat bushy plant. The flowers are borne in large branching spikes, and along them the blossoms are produced in short racemes of ten or twelve

in each; they are a pretty light yellow colour. It is a handsome species.

A. PRÆMORSA.—The leaves are short, and the plant forms a pretty bush, blooming very profusely; flowers a rich yellow. Very pretty.

A. DENTIFERA.—The leaves are four inches long, very narrow; it forms a neat branching bush. The flowers are a rich deep yellow colour, and the globular heads large. It is a very beautiful species.

A. OVATA.—The leaves are oval-shaped, half an inch across; it is a very neat bushy plant. The flowers are produced in long spikes, and are a rich yellow colour. It is a very lovely species.

A. LEPTOREURA.—Leaves like a thinly-foliaged Pinus, about three inches long. The flowers are a deep yellow. It is singularly pretty.

A. PUBESCENS.—Neat small foliage; and the rich yellow globe flowers, borne in *drooping* panicles, are very handsome.

A. DECURRENS.—Deep yellow, in large branching panicles. Very showy.

A. SQUAMATA.—The foliage is small, and the branches are drooping, bearing a vast profusion of deep golden-coloured flowers. It is a very interesting and handsome species.

A. RICEANA.—Small Pinus-like leaves. The flowers are borne in cone-shaped heads, profusely, of a pale yellow colour. A very neat species.

A. UNDULÆFOLIA.—Flowers a rich yellow; singular foliage. Pretty.

A. LANCIFOLIA.—Pretty lance-shaped leaves, and bright yellow globe flowers.

THE ATMOSPHERE OF PLANT-HOUSES, viz., STOVES, &c.

BY FLORISTA.

THIS subject not having been noticed in your Magazine, and being one in which all cultivators of in-door plants are specially connected with, I am induced to transmit the following particulars upon the same for insertion in an early number:—

Some idea may be formed of the prodigiously increased drain upon the functions of a plant, arising from an increase of dryness in the air, from the following consideration. If we suppose the amount of its perspiration, in a given time, to be 57 grains, the temperature of the air being 75° , and the dew-point 70, or the saturation of the air being 849, the amount would be increased to 120 grains in the same time, if the dew-point were to remain stationary, and the temperature were to rise to 80° ; or, in other words, if the saturation of the air were to fall to 726.

Besides this power of transpiration, the leaves of vegetables exercise also an absorbent function, which must be no less disarranged by *any deficiency of moisture*. Some plants derive the greatest portion of their nutriment from the *vaporous atmosphere*, and all are *more or less dependent* upon the same source. The *Nepenthes distillatoria* (Pitcher plant) lays up a store of water in the cup formed at the end of its leaves, which is probably secreted from the air, and applied to the

exigencies of the plant when exposed to drought; and the quantity which is known to vary in the hothouse is no doubt connected with the state of moisture of the atmosphere.

These considerations must be sufficient, I imagine, to place in a strong light the necessity of a strict attention to the atmosphere of vapour in our artificial climates, and to enforce as absolute an imitation as possible of the example of nature. The means of effecting this is the next object of our inquiry.

Tropical plants in stoves require to be watered at the root with great caution; and it is impossible that a *sufficient* supply of moisture can be kept up from this source alone. There can, however, be no difficulty in keeping the floor of the house and flues constantly wet; and an atmosphere of great elasticity may thus be maintained in a way perfectly analogous to natural process. Where steam is employed as the means of communicating heat, an occasional injection of it into the air may also be had recourse to; but this method would require much attention on the part of the superintendent, whereas the first cannot easily be carried to excess.

It is true that damp air, or floating moisture of long continuance, would also be detrimental to the health of the plants, for it is absolutely necessary that the process of transpiration should proceed; but there is no danger that the high temperature of the hothouse should ever attain the point of saturation by spontaneous evaporation. The temperature of the external air will always keep down the force of the vapour; for as in the natural atmosphere the dew-point at the surface of the earth is regulated by the cold of the upper regions, so in a house the point of deposition is governed by the temperature of the glass with which it is in contact. In a well-ventilated hothouse, by watering the floor in summer we may bring the dew-point within four or five degrees of the temperature of the air, and the glass will be perfectly free from moisture; by closing the ventilators we shall probably raise the heat ten or fifteen degrees, but the degree of saturation will remain nearly the same, and a copious dew will quickly form upon the glass, and will shortly run down in streams. A process of distillation is thus established, which prevents the vapour from attaining the full elasticity of the temperature.

The action is beneficial within certain limits, and at particular seasons of the year; but when the external air is very cold, or radiation proceeds very rapidly, it may become excessive and prejudicial. It is a well-known fact, but one which, I believe, has never yet been properly explained, that by attempting to keep up in a hothouse the same degree of heat *at night* as during *the day*, the plants become scorched. From what has been premised, it will be evident that this is owing to the low temperature of the glass, and the consequent low dew-point in the house, which occasions a degree of dryness which quickly exhausts the juices.

Much of this evil might be prevented by such simple and cheap means as an external covering of mats or canvass.

The heat of the glass of a hothouse at night does not probably exceed the mean of the external and internal air; and taking these at 80° and

40°, 20° of dryness are kept up in the interior, or a degree of saturation not exceeding 528°. To this, in a clear night, we may add at least 6° for the effects of radiation, to which the glass is particularly exposed, which would reduce the saturation to 434°, and this is a degree of drought which must be nearly destructive. It will be allowed that the case which I have selected is by no means extreme, and it is one which is liable to occur even in the summer months. Now, by an external covering of mats, &c., the effects of radiation would be at once annihilated, and a thin stratum of air would be kept in contact with the glass, which would become warmed, and consequently tend to prevent the dissipation of the heat. But no means would of course be so effective as double glass, including a stratum of air; indeed, such a precaution in winter seems almost essential to any great degree of perfection in this branch of horticulture. When it is considered that a temperature at night of 20° is no very unfrequent occurrence in this country, the saturation of the air may, upon such occasions, fall to 120°, and such an evil can only at present be guarded against by diminishing the interior heat in proportion.

By materially lowering the temperature, we communicate a check which is totally inconsistent with the welfare of tropical vegetation. The chill which is instantaneously communicated to the glass by a fall of rain or snow, and the consequent evaporation from its surface, must also precipitate the internal vapour, and dry the included air to a very considerable amount, and the effect should be closely watched. I do not conceive that the diminution of light which would be occasioned by the double panes would be sufficient to occasion any serious objection to the plan. The difference would not probably amount to as much as that between hothouses with wooden rafters and lights, and those constructed with iron bars. It might also possibly occasion a greater expansion of the foliage; for it is known that in houses with a northern aspect the leaves grow to a larger size than in houses which front the south. Nature thus makes an effort to counteract the deficiency of light by increasing the surface upon which it is destined to act.

The present method of ventilating hothouses is also objectionable, upon the same principles which I have been endeavouring to explain. A communication is at once opened with the external air, while the hot and vaporous atmosphere is allowed to escape at the roof; the consequence is, that the dry external air rushes in with considerable velocity, and, becoming heated in its course, rapidly abstracts the moisture from the pots and foliage. This is the more dangerous, inasmuch as it acts with a rapidity proportioned in a very high degree to its motion. I would suggest, as a matter of easy experiment, whether great benefit might not arise from warming the air to a certain extent, and making it traverse a wet surface before it is allowed to enter the house.

There is one practice universally adopted by gardeners, which is confirmatory of these theoretical speculations, namely, that of planting tender cuttings of plants in a hot-bed, and covering them with a double glass. Experience has shown them that many kinds will not succeed

under any other treatment. The end of this is obviously to preserve a saturated atmosphere; and it affords a parallel case to that of Dr. Wells, of the anticipation of theory by practice.

The effect of keeping the floor of the hothouse continually wet has been already tried, and the plants have grown with unprecedented vigour; indeed their luxuriance must strike the most superficial observer in such houses in the Royal Gardens of Kew.

To the human feelings the impression of an atmosphere so saturated with moisture is very different from one heated to the same degree without this precaution; and any one coming out of a house heated in the common way into one well charged with vapour cannot fail to be struck with the difference. Those who are used to hot climates have declared that the feel and smell of the latter exactly assimilate to those of the tropical regions.

But there is a danger attending the very success of this experiment, which cannot be too carefully guarded against. The trial has been made in the summer months, when the temperature of the external air has not been low, nor the change from day to night very great. In proportion to the luxuriance of the vegetation will be the danger of any sudden check; and it is much to be feared that, unless proper precautions are adopted, the cold long nights of winter may produce irreparable mischief.

I am aware that an objection attaches to the plan of double glass on account of the increased expense; but I think that this may appear greater at first sight than it may afterwards be found to be in practice, especially now that glass is so very cheap.

The principles which I have been endeavouring to illustrate should be, doubtless, extended to the pinery and melon-frame; in the latter of which a saturated atmosphere might be maintained by shallow pans of water. An increase in the size of the fruit might be anticipated from this treatment, without that loss of flavour which would attend the communication of water to the roots of the plants.

I have but few additional observations to offer upon the artificial climate of a greenhouse. The remarks which have been made upon the atmosphere of the hothouse are applicable to it, though not to the same extent. The plants which are subject to this culture seldom require an artificial temperature greater than 45° or 50° , and few of them would receive injury from a temperature so low as 35° . When in the house they are effectually sheltered from the effects of direct radiation, which cannot take place through glass; but the glass itself radiates very freely, and thus communicates a chill to the air, which might effectually be prevented by rolling mats. With this precaution, fire would be but rarely wanted in a good situation to communicate warmth; but in this damp climate it may be required to dissipate moisture. The state of the air should be as carefully watched with this view as where a high temperature is necessary to guard against the contrary extreme. Free transpiration, as I have before remarked, is necessary to the healthy progress of vegetation; and when any mouldiness or damp appears upon the plants, the temperature of the air should be moderately raised, and free ventilation allowed. When the

pots, in the proper season, are moved into the open air, it would contribute greatly to their health, and preserve them from the effects of too great evaporation, to imbed them well in moss or litter. As a substitute for this precaution, the plants are generally exposed to a northern or eastern aspect, where the influence of the sun but rarely reaches them, but which would be very beneficial if their roots were properly protected. The advantage of such a protection may be seen when the pots are plunged into the soil—a method which communicates the greatest luxuriance to the plants, but unfits them to resume their winter stations.

ON MANURES.

BY A PRACTITIONER.

MANURES which stand next to the mineral mixtures of sandy clay and chalk are potash and carbon, which may be obtained in a mass, cheaply and readily, by digging a hole, paving the bottom, and by putting into it all weeds and refuse vegetables, and occasionally a layer of quick-lime, refuse water from the house, particularly soapsuds (which contain potash), chamber-lye, refuse from the pigs, cows, slop-pail, &c.; these will in a few months be so decomposed and enriched by the aid of the lime, that a mass of potash and carbon will be obtained, and these are the origin and basis of all vegetables.

An accumulated mass of manure should never be allowed to have the liquor run away from it, for its very essence is potash (a piece of wood can have its potash washed out by continual running). All dung-heaps, therefore, should have an earth under them of a different nature to the soil which they are intended for as a dressing; for example, if we desire to enrich a heavy clay soil, we must have sand or road-scrapings, and a little lime, if it can be procured, laid under each dung-heap; and if we desire to enrich a sandy loam, we must lay chalk and marl, or chalk and clay, under our dung-heaps. For the husbandry of manures and their increase, let all animals be kept with a sand or other earth under their litter at all times, to soak up the moisture; a turf might be lined over the stable, cow-house, or pig-sty, and removed every week, and thus would a great accumulation of vegetable stimulus be obtained, and this, indeed, would be a husbandman-like process, a gathering of gold.

Stable Dungs, which ferment, should be buried in the ground as early as possible after coming from the horses, for every gas or steam which passes from it fermenting is a loss of its nutritive substance, for all manures are but a concentrated mass of gases; air and water, or their component parts, are the bases of all manures which have vegetable origins.

Sugar Scum is a favourite manure for those lands where there is a want of chalky matter, particularly on the sands, previously to a crop of turnips; but this scum is principally composed of lime: and a better article can be obtained from pounded chalk that has soaked up the juices from a dung-hill.

Soap Ashes are composed of lime (converted again into chalk) and soda. This is a good and lasting dressing on a dry sandy soil.

Rough Potash, from saltpetre works, is the best of all dressings; it is the vegetable itself concentrated in a state ready to enter at once into the fibres of young roots of plants when aided by water.

Lime, when thrown over land, is quickly converted again into chalk by imbibing from the air that acid which had been driven off by fire: hence chalk is as good if put on the land in the winter, because the frost, acting on the water in it, expands and crumbles the article to pieces.

Salt is a soda in union with an acid, and acts on land in the same manner as many other manures, by holding moisture for the service of vegetation; but the article of common salt does not enter so much into the composition of land vegetables as the salt of potash, that is, saltpetre, or vegetable alkali, as it is called.

Cheap efficacious Manure.—Raise a platform of earth on the head-land of a field, eight inches high, and of any width and length, according to the quantity wanted. On the first stratum of earth lay a thin stratum of lime from the kiln; dissolve or slake this with salt brine from the rose of a watering pot; add immediately another layer eight inches thick of earth, then lime and brine as before, carrying it to any convenient height. In a week it should be turned over, carefully broken and mixed, so that the mass may be thoroughly incorporated. This compost has been used in Ireland, has doubled the crops of potatoes and cabbages, and is superior to stable dung.

Gypsum is a dressing used with a variety of effects on different lands, and for different purposes; it is a lime in union with sulphur, being a refuse from plaster-makers. Those crops which are cut green take up gypsum, which constitutes a part of their substance, such as sainfoin, clover, lucern, peas, tares, and such like crops. To these this mineral dressing will be good; but it is injurious on a chalky land, and when animal and vegetable manures are easily obtained it is not worth using, for they yield a sufficiency of gypsum to the soil. Sir H. Davy considered that an acre of tares took up several pounds of gypsum.

Bone Dust is now a very favourite dressing for turnips, and, indeed, many other crops; it is principally composed of lime and phosphorus, which readily enter into the composition of grain and all grasses. A portion of lime and phosphorus is also found in all milk, and goes to form the bones of young animals which suck; the staler the milk, the less phosphate of lime is there in it. This bone-dressing for land is a very expensive article, and should be cautiously used. Coal-ashes, especially if laid under dung-heaps, are an excellent dressing for clays, by opening and enriching the soil, and, like soot, impart a carbon or charcoal to the soil, of which all clays are deficient.

In all these manures we find lime an active principle, except in the salt dressings. Lime imbibes carbon, which is the woody principle, and also holds moisture for the service of vegetation. If we cannot procure large quantities of these manures, we must entice air and water to the roots of plants by every means in our power; and this may be done with the greatest facility by repeated movings of the surface, a hoeing being equal to a shower of rain.

WATERING FLOWER GARDENS.

BY AN AMATEUR.

THE soil of my flower garden is a very sandy loam, upon a deep gravelly substratum. From this circumstance I am compelled to water all the flower-beds during dry weather. I am aware of objectors to this practice stating that such application does much more harm than good. This might be true to some extent, if the surface only was just moistened. Such watering will encourage, perhaps, the pushing of a few fibrous roots into the moist surface soil, which a day or two of hot sun will destroy; and whilst this system is going on, the plant, being dry below, is gradually dying. Now my plan has been, during the last two months, to have the surface loosened three or four inches deep by hoeing, and leaving without being raked, and this uneven open surface admitted the water applied to sink below. I had the surface thus disturbed once a-week. The gutta-percha tubing being advertised in this Magazine, I purchased a sufficient length at a trifling cost; and having a pond of soft water situated a few yards higher than my garden-ground, I laid one end of the tubing in the pond (one hundred yards off from the garden), and having the other end in my garden, I could move it quite readily to every part, and thus with ease I gave the beds sufficient to sink through the entire soil on each occasion. This enabled the roots to supply the foliage with what is lost by perspiration, and necessary for sustaining the proper vitality thereof. I repeated the watering once a-week, and the plants are in robust health and profuse bloom. The piping is easily unrolled over the ground, and when done with, readily coiled up. A tank of water, *being higher* than the ground to be watered, will, of course, afford a supply, if there be not the advantage of a pond or other reservoir. The essentials in having the plants healthy in dry seasons are, having the surface of the border deeply loosened, and left in a rough-surfaced state; and when water is requisite, let it sink as deep as the general portion of the roots do.

BRIEF REMARKS.

FORM OF THE FLOWER OF A CALCEOLARIA.—In my recent readings and visits to Floricultural Exhibitions I find some difference exists as to what is the *best form* of the Calceolaria; and at two of the shows I recently attended near London a considerable disturbance arose with two exhibitors of these flowers, the decision of the judges being unsatisfactory to one of the parties. The *best specimen* to which the judges awarded the first prize had flowers of the middle size, good circular outline, free from indentations (or hollows) at the edge; and whilst the back part of the flower was nearly flat, the front was well swelled out, and the throat of the blossom was almost hidden.

The *second best specimen* had much larger flowers than the former, somewhat longer than broad, and the outline free from indentation; but the front was not so full as the flowers of the former. Both varieties had a rich deep yellow ground, and beautifully blotched in the face.

I should be glad if some connoisseur of this lovely tribe of flowers would give me his opinion of the best properties of a flower—what would generally be approved of as a model to aim at, and decide by.

Glenny, on the properties of the *Calceolaria*, states: “The individual flower depends entirely on the form of the purse (pouch of some persons); it should be a perfect *round* hollow ball; the orifice or calyx cannot be too small, nor the flower too large.” By this I am informed I am to understand that the flower is to be a *perfect globe*. I am aware some of the very old kinds, as the annual *C. pinnata*, and one or two of the old bedding varieties, which have flowers about the size of a pea, have globe-shaped flowers; but of the general class of show *Calceolarias*, I never saw or heard of one being a *globe* shaped. I think, too, that the perfect *globe* would not be so handsome as the flower that has a perfect circular outline of face, and the front about *half of half-a-globe* shape, in which form its markings is much better seen than it could be if a flower was a globe. Such a standard as I suggest I respectfully submit as a standard.—*An Old Grower of Calceolarias*.

ON TUSSILAGO FRAGRANS (HELIOTROPE-SCENTED).—I do not know any border plant that is a greater favourite with the ladies than this beautiful Heliotrope-scented flower, either growing in pots, or as a cut flower; and to insure a regular or ample supply of flowering plants, it is only requisite to prepare a steep bank facing the south, and sloping to an angle of about 45° . About the middle of June fill it with plants six inches apart, and cover the surface of the bank with at least six inches of ordinary garden-mould. No further attention is necessary till the end of October, when it will be observed that almost every flower has formed a bold-swelling flower-bud, from which a sufficient supply either for the greenhouse or the market may be potted off. By keeping part in a cold frame, a succession may be retarded, and thus a supply obtained till the end of March, when the season will furnish an ample stock of other flowering plants to take its place. The plantation made in June will continue to furnish plenty of flowering plants the second year after planting, but should be afterwards renewed, as the flowering plants become weaker and far fewer in number after the soil is exhausted by bearing a succession of the same sort of crop. A few leaves thrown over the bank will protect many of the flowers in ordinary winters, and retard their flowering till the beginning of spring.

ON YEAST AS A MANURE.—Having seen the most surprising effects from refuse barm or yeast, diluted with water, and distributed over grass lands, I am induced to call the attention of some of your correspondents more particularly to its use, where it can be readily obtained, as it seems to be the most powerful manure we have for new grass lands, applied early in the spring; and for plants generally requiring a rich compost it is highly beneficial, given in a very diluted state. Composts for Roses, Geraniums, Dahlias, &c., are greatly improved by the addition of a small quantity of putrid yeast in a fluid state. It acts as a powerful exciter to the whole mass of vegetable matter; the results arising from the fermentation and decomposition of which, and their effects in stimulating vegetation, are well known.—

Clericus.

DESTROYING WEEDS UPON WALKS.—Among the objects of horticultural interest at the Industrial Exhibition (Class IX., No. 253) is a machine for destroying weeds, moss, lichens, &c., on gravel-walks, court-yards, &c., invented by Mr. Fleming, of Trentham. This machine may be described as a large wrought-iron boiler, fitted upon wheels, with a fire-place in the centre for the purpose of heating the water to a boiling temperature. Connected with the boiler is a spring valve and delivery pipe, similar to those used upon common watering-carts, through which boiling salt-water is delivered in a continuous and gentle shower, the salt being mixed in the proportion of two pounds to each gallon of water. This, at Trentham, is found to be very effectual, and the expense of the application a mere fraction, compared with the expense of hand-weeding. The contrivance is ingenious; but if the liquid be applied very hot and strong, where there is grass, box, thrift, or similar edging, some care will be required to prevent its being injured. A small ridge of sand, or any similar article, formed all along the side of the edging, will prevent the water coming into direct contact with the plants. A small ridge is easily made by having a simple machine, similar to what is used by the farmer to sow one row at a time of turnip seed, or scatter bone-dust in the row, &c. A good-sized box of sand or other material thus run along would serve for a considerable distance, and be very readily done.—*T. R.*

RULES FOR EXHIBITORS AND JUDGES AT HORTICULTURAL MEETINGS.—During the spring of 1851 I entered to my first situation as gardener in Yorkshire. A very respectable Horticultural Society's exhibition recently took place in the neighbourhood of the place I reside at. Having but lately come, and not taking any articles to exhibit, I was supposed to be so far disinterested; and one of the three previously selected judges not being at liberty to fulfil his engagement, I was solicited to supply the vacancy thus occasioned. In the course of our inspection we had under consideration eighteen collections of Pelargoniums, which included the General Class as well as the Fancy Class. Here a difficulty arose to myself relative to the proper decision to be given upon some collections shown. The following are the particulars:—

Prizes were offered for the best twelve Pelargoniums (of the large flowering class) and for the best eight of the Fancy Class. Of the former there were two collections of rather old varieties; but they were admirably grown and in excellent bloom, and large specimens. There were two other collections, much smaller plants, tolerably well bloomed, and the varieties shown were of much better form than those of the older kinds. The difficulty was as follows: The pots in which the plants were grown were of the same size. The collections of older varieties were one year older than the new kinds, and the plants were in consequence larger and better bloomed. But, as before observed, the varieties of new kinds had much superior-formed flowers. The wording of the schedule stating only the BEST twelve and the BEST eight brought me into this dilemma—Did the "best" apply to the *management* of the plants, as being the *best* plants and *best* bloomed? or did it refer to GOOD MANAGED plants (but inferior to the larger ones

mentioned), of newer and superior formed flowers? It appeared to me that it would be best to give a prize for the *best-managed* specimens, and another prize for the BEST MANAGED of the *best varieties in form of flowers*.

It is very probable I may be called to sustain such an office again, and I should be glad to have the suggestions of some older in the office than myself, that I may be enabled to stand with the majority in future, for my two colleagues outvoted me on this occasion, and persisted in the old course, to the dissatisfaction of the exhibitors in both classes of Pelargoniums. I am satisfied that the schedules ought to be more definitely arranged, so that not only may the judges have correct rules to go by, but that losing exhibitors may be directed to properly-defined regulations in the schedules of that particular exhibition. I hope for advice in the next number of your Magazine.—*Junius*.

GREAT NORTHERN TULIP SHOW.—In our last number we inserted the particulars of the winning Tulips, &c. Mr. Wood, who was one of the judges, notices the following varieties in the *Midland Florist* as being very superb specimens:—

Feathered Bizarres.—Royal Sovereign (synonymes, Charles X., Platoff), a very fine variety. Earl Douglas, a short pure cup and perfect feather. Polyphemus: few can touch this magnificent variety when in good character. Duke of Devonshire should be grown in every collection. Surpass Catafalque, large and good; a safe variety. Sir Sidney Smith and Ulysses are very desirable varieties; and Duc de Savoy, excellent of its kind.

Flamed Bizarres.—Captain White, especially distinguishable; its specimens were first-rate. Pilot: its form and purity is undeniable, but sometimes has too heavy a flame. Polyphemus (flamed), fine cup, rich and dark marking: its stout and leather-like petals render it a perfect model. Hamlet, in the same way as the last. Strong's King, not with sufficient *feather* in conjunction with *flame*, is still very beautiful. Marshal Soult and Optimus were very pretty; also Grandeur Magnifique (or flamed Catafalque), good in form, and rich in colour and marking.

Feathered Byblæmens.—Lancashire Hero, splendidly marked. Eclipse, a pretty feathered flower. Queen of the North, delicate and beautifully clean. Maid of Orleans, a very nice flower. Lord Denman was *feathered*, though its usual character is flame: one of the most beautiful marking flowers grown, rather too narrow at the base. Lord Gough and Byzantium are very attractive varieties. Kosciusko is a chaste and beautiful variety.

Flamed Byblæmens.—Queen Charlotte asserted her supremacy, and will beat any other of its class. Princess Royal, a fine pure and bold flower, with many good qualities. Violet Brun, perfection in the way of purity and marking, form beyond the average. La Bien Amie has purity and good marking.

Rose Class.—Lac (*true*); sometimes Guerrier is known as Lac in some localities. The *true* is a splendidly marked flower, *flame* and *feather*, colour very pleasing, and the white as pure as driven snow. Heroine (or *feathered* Triomphe Royale), a very safe flower, a splendid

variety, and a dozen of it ought to be in every bed. Aglai, feathered, a most desirable variety, beat Heroine. Napoleon, beautiful feather, pure and excellent, a formidable rival.

Flamed Roses.—Triomphe Royale, a splendid flower. Aglai, equally so. Camilla, very pretty. La Vandikken, Fanny Cerito, and Vesta, all good.

Breeder Tulips.—Pilot, excellent in form and purity. Princess Royal, excellent and pure. Catharine, very superb.

Novelties.—Blue Bell, feathered Bybløemen, very pretty. Magnet, feathered Bizarre, very neat and attractive. Van Amburg, flamed Bybløemen, when true in character, is a splendid flower; it is apt to have a yellow-tinged base. Sir Thomas, flamed Bizarre, very attractive, but unfortunately stained.

At this show some flowers had lost some of their *anthers*. All such blooms were disqualified, however excellent in other respects.

VAUXHALL GARDENS, LONDON.—Another interesting show of flowers, fruits, &c., was held on Wednesday EVENING, the 20th of August. The collections of miscellaneous plants were numerous, and of DAHLIAS there were twenty-one stands, exhibited by amateur growers, and eight stands by nurserymen. The blooms were, for this early season, in very good condition. Amongst the varieties exhibited that were sent out last spring, we noticed the following in good condition:—Nil Desperandum, scarlet, full and large; Roundhead, salmon; Summit of Perfection, purple; Sir C. Napier, vivid scarlet; Admiral, lilac; Nepaulese Prince, maroon; Mr. Herbert, orange; Gem of the Grove, purple; Model, bronze; Leda, orange; Queen of Dahlias, pale lilac; Mrs. Hansard, yellow, tipped with white; Elegantissima, white and bluish purple; and Pretty Polly, red and white. The following old but favourite sorts were shown in good order:—Duke of Wellington, Mr. and Mrs. Seldon, Fearless, Essex Triumph, Richard Cobden, Scarlet Gem, Privateer, Princess Radziville, Shylock, Black Prince, Nonpareil, and Queen of Lilacs. Among the HOLLYHOCKS were good blooms of Charles Baron, Comet, Rosy Queen, Magnum Bonum, Aurantia, Enchantress, Charles Turner (seedling), Susanna, Sir D. Wedderburn, Model of Perfection, Lord Willoughby d'Eresby, Venosa rubra, Nobellissima, Prince Albert, Delicata, Standard of Perfection, Rosea Alba, Rosea grandiflora, Elegans, Eclipse, Sulphurea perfecta, Premier, Beauty of Haverhill, Bella Donna, Lady Clark's, Bessy Bell, General Bem, Queen of Whites, Andrucana, Queen, Obscura, Napoleon, Caroline, Pitho, Subrano, Waldren Gem, Mount Etna, Mulberry Superb, Formosa, Bicolor, President, Queen of Lilacs, Snowflake, Princess Alice, Watford Surprise, and Conspicua. FUCHSIAS consisted of—*Dark Varieties*: Epsii, Exoniensis, Serratifolia, Orion, Prince Albert, Orestes, Inaccessible, Sir J. Falstaff, Don Giovanni, Magnificent, Exquisite, Kossuth, Sir R. Peel, Corallina, Dr. Smith, Splendida, Clapton Hero, and Nonpareil.—*Light Kinds*: Fair Rosamond, Duchess de Bordeaux, Pearl of England, Queen Elizabeth, One in the Ring, Diana, Dr. Jephson, Globosa alba grandiflora, Napoleon, Purity, and Gem of the West.

SUPERB FLOWERING PLANTS IN BLOOM IN THE ROYAL GARDENS AT KEW.—*In the Open Borders.*—*Tritoma uvaria*: Several large

plants are in fine bloom. One has forty-four spikes of flowers, the stem of each about four feet high, and the spikes from six to ten inches long. Each blossom is tube-shaped, two inches long, and the stem is very thickly set with them all round. In their early stage they are of a light scarlet, but change to a rich yellow, the contrast being very pretty. The plants continue in bloom most of the summer, and are exceedingly ornamental, well deserving a place in every flower garden.

Tritoma media is also very showy, the spikes of flowers being half a yard long, and the blossoms about three inches, red, tipped with yellow. Very pretty.

Pentstemon elegans.—The blossoms are an inch and a-half long, of a pretty rose colour, produced in profusion. Plant half a yard high.

P. digitalis.—Blossoms wide tube-shaped, an inch and a-half long, white, produced in profusion, are very pretty, contrasting nicely with the rich-coloured ones.

P. hirsutus.—Wide tube-shaped, an inch and a-half long, blue, with a white five-parted end. Neat and pretty.

P. Themisteri.—Tube wide, an inch and half long, light pink. A medium-sized plant, but very neat.

Pyrethrum Parthenium, pleno.—Plant grows about a foot high, and blooms in vast profusion, each blossom being very double, an inch across, of a snow white. It is the best *white-blossomed* plant we have seen for a bed.

Lantana delicatissima.—This is a very neat bedding plant, grows about a foot high; the heads of flowers are an inch and a-half across, lilac, with a white eye. The centre of a bed is composed of this, and surrounded with the dwarf *L. Sellowii*, the blossoms of which are darker. The plants require to be placed close enough to become a compact mass, and then forms a beautiful neat bed.

Zauchneria californica.—There is a bed of it in most *profuse* bloom, one foot to eighteen inches high, the light orange-scarlet flowers being very showy. To keep the plants erect, it is necessary to have from the first sticks about nine inches high pricked closely among the plants; this will keep them upright, and the flowers show well.

The following Pelargoniums are excellent bedding varieties, which we have seen proved, being free bloomers, and not having too much leaf. They are such as our readers may fully depend upon for a fine display of bloom. We give them thus early, that persons desirous of having such for beds next year may now procure bushy plants from which cuttings may immediately be taken, and a stock of young plants be provided this autumn:—

P. diadematum rubrum.—The flowers are large, in fine trusses, of a showy rosy-crimson, tinged with purple. They stand out well above the foliage. An admirable variety.

P. variegatum.—Leaves of a deep green, with a broad margin of creamy-white, edge rather deeply cut. The flowers are of a bright red, petals narrow; but the numerous trusses of flowers, well elevated above the leaves, render it very showy.

P. Annette.—White, tinged with lilac, and the upper petals having a deep-red spot. The foliage is much curled, and has a powerful lemon scent. It is a profuse bloomer, an excellent bedding variety, and grows about a foot high.

P. grandiflorum.—A fancy variety, white ground, with large clouded blotch on upper petals, and a band of crimson across the lower ones. The flower is of good form, large as *Statiiski*, and profuse bloomer. An excellent bedding one. A foot high.

P. Unique, var. *lilacina*.—The purple *Unique* is now a great favourite, and this very neat *lilac* variety will be equally so. It is in all respects much like the former kind, except the colour of the flowers. Both varieties ought to be in every flower-garden, as well as in every greenhouse, where they prove to be valuable for blooming freely during winter and the early part of spring.

P. lucidum.—Leaves a rich green, with a lighter centre, and very glossy. The plant grows about a foot high, blooms very profusely, rising well above the leaves. The petals are narrow, but being of a rich bright red they produce a fine show.

P. peltatum (*Pink Ivy-leaved*).—This is a very pretty variety, blooming very freely, and the flowers stand well above the foliage, of a beautiful pink colour, and are borne in profusion. Most of our readers know the old white-flowered *Ivy-leaved*; that kind is often grown in beds; but there is too large a proportion of leaves to the flowers, that it has not a nice effect. The foliage of the *Pink* is not *so large*, and the flowers are *more abundant*. It is a good variety for a bed. There is a light purple variety, too, which is a good one for bedding, of similar habit to the *Pink*, and well worth possessing.

P. Lady Mary Fox.—This is one of the general class of *Pelargoniums*. Flowers about two inches across, good shape, scarlet, and the upper petals have a dark spot on each. It blooms freely, is of medium growth, and a good bedding variety.

P. Sidonia.—By some this pretty variety is placed among the *Fancies*. The flowers are two inches across, flesh-coloured, shaded with bright pink. The upper petals have a dark spot, and the lower ones a rosy-red spot. It is of medium growth, blooms very freely, and a pretty bedding variety.

P. Moore's Victory.—This old variety has always been admired. The foliage is very prettily divided and curled. The flowers are about three parts of an inch across, of the richest deep scarlet colour, with a black spot on each of the upper petals. If grown in a bed where the soil is not very rich, it blooms freely; but in all cases it is a very neat handsome variety, well worth possessing.

P. Nimrod.—The plant is the most like the old *Daveyanum* of any we have seen. The flowers are borne very freely, each blossom about two inches across, of a rich scarlet crimson. A good bedding variety.

P. Nutans: The Nodding.—The plant grows from six to nine inches high, and the shoots have a decumbent tendency, rendering it very suitable to grow at the side of a vase or raised bed, &c. The flowers are an inch across, of a rich red, and the upper petals have a black spot on each.

P. coccinea.—The plant grows compact, a foot high, and blooms very freely, of a rich scarlet colour, each blossom being an inch across. It is an excellent bedding variety.

P. Lady Rivers.—A fancy variety; grows about a foot high, and blooms very freely. Each flower is two inches across, having a white

ground, and a broad band of rosy-pink across the upper petals. An excellent bedding variety.

P. Cerise Unique (of the so-called Scarlet Geranium Class).—We noticed it this last month, and, in addition, have to recommend it as an excellent bedding one. The leaves have a light-green centre, with a brown horse-shoe mark, edged off with dark green. The flowers are large, fine form, of a rich cherry-scarlet colour. Of medium growth.

P. Judy.—Large flowers, fine form, pretty salmon-scarlet, producing a beautiful effect in a bed. *Punch*, with its magnificent trusses, of large fine-formed rich scarlet flowers, is an excellent bedding one. *Tom Thumb* and *Compactum*: we need say no more than each are excellent.

P. Flower of the Day.—This popular variety, with its green leaves, edged broadly with white, is a tolerably free bloomer; the flowers of good size and form, of a salmon-scarlet colour; does very well in a small bed. The plants should be of good size before turning out, and then they do not run into too much foliage, the old wood pushing less vigorous shoots, but a freer supply of flowers. Messrs. Lee having specimens of a large as well as small size out in the open ground, we perceive the above result.

P. Golden Chain and *Golden Chain superbum*.—These are handsome in a bed, even without a flower. Like the *Flower of the Day*, the plants should be of good size before turning out, so that they have one or two years' old wood; and the shoots from such not being too vigorous, bloom more freely than young robust ones.

Fuchsias.—There is a large bed of mixed *light* and *dark* flowered varieties; but thus arranged they have not a good effect: each *section* ought to be in separate beds, or grown as single bushes, remote from each other, in which manner they display themselves the best.

In the greenhouse the following superior varieties were in bloom:—

F. Diadem de Flora.—Tube an inch and half long, white. Sepals flesh colour, with a green tip. Corolla rosy-erimson, which is well shown, as the sepals reflex back, so that when the blossom is expanded it is three inches and a-half across. A fine variety.

F. Prince Arthur (Nicol's).—Tube an inch and a-half long, stout, white. Sepals white, reflexing well. Corolla large, of a rich rosy-erimson. A very superior variety; ought to be one of every collection.

F. General Oudinot.—Tube long, rose colour. Sepals rose, tipped with green. Corolla large, a rich crimson-red. When the flower is fully expanded it is four inches across. Very showy.

F. Don Giovanni.—Tube and sepals of a *bright scarlet* colour, the latter reflexing well, and fully exhibits the *rich violet-coloured* corolla.

F. splendens.—The flower is of medium size. Tube and sepals of a very bright scarlet, the sepals reflexing very much, fully exhibiting its fine blue corolla. It is exceedingly pretty.

F. serratifolia multiflora.—The flowers are smaller sized than the original species, but of similar colours, viz., tube rosy-pink, with green sepals; corolla orange. It is a *free bloomer*, and well worth growing, either in-doors or the open bed.

F. striata (Storey's).—The flower is of medium size; tube and sepals red; corolla crimson, beautifully striped with rich purple. The sepals reflexing well, the striped corolla is fully exhibited.



F. flavescens.—The flower is of good size; tube and sepals pale yellow; corolla scarlet. The contrast is striking and handsome. A free bloomer.

Salpiglossis.—Numbers of plants in pots in the greenhouse and pit-frames were in nice bloom, such as new yellow; lilac, veined with black; bronze, beautifully veined with gold; white, veined with black; white, with yellow veins; blue, with light veins. This pretty tribe well merits a place as summer ornaments for the greenhouse.

Nerium spectabilis de Neuilly.—The plant blooms profusely. The flowers are single, of a pretty peach colour.

N. formosum.—A profuse bloomer. The flowers are single, white, and the centre streaked with red.

N. Joan of Arc.—Flowers single, white, with a pale sulphur centre.

N. lutescens.—Single; petals narrow, pale yellow.

Fuchsia corymbiflora alba.—Very large plants of this pretty variety are in fine bloom. The tube and sepals white, with rich crimson corolla. Some of the racemes were about two feet long. It requires to be grown in-doors, and where it can have partial shade, in order to have the tube and sepals pure white. With such attention it will bloom true.

Bouvardia leiantha.—The flowers are of a *bright* scarlet, very distinct from any other of the genus.

Microsperma Bartonoides.—A pretty new hardy annual, whose flowers very much resemble those of the old dwarf-spreading St. John's Wort of the gardens. Each flower is three inches across, bright yellow, and, with its numerous thread-like filaments, has a very interesting appearance. The plant spreads freely, and blooms abundantly.


Brachycoma iberidifolia.—The blue, lilac, and white flowering varieties were in beautiful bloom in the greenhouse. Their pretty Aster-like flowers, in such profusion, render them very ornamental. Now is the time (September) to sow seed in pots, and raise young plants before winter, in order to bloom fine next season.

Justicia carnea.—This is one of the prettiest plants in the stove and greenhouse. Its fine heads of beautiful flesh-coloured flowers are very ornamental, bushy plants having a dozen or more heads of bloom. It is a charming plant, blooming, too, almost all the year.

Sanvatillia procumbens.—This low-spreading annual is employed as an edging, a foot broad, round some circular beds of other flowers. It blooms very freely; each blossom an inch and a-half across, yellow, with a black disk. It is very neat and pretty, growing a few inches high, and blooms all the summer. It would do well around a raised bed, or to hang over the edge of a vase.

Impatiens pulcherrimus.—The flowers are of a similar form to *Balsamita latifolia*, an inch and a-half across, lilac, with a rosy-purple centre. The plant is more robust than this species; grows two to three feet high. It is in stove; but no doubt would do equally well in summer in the greenhouse. It is very pretty.

Oenothera prostrata.—This is a pretty plant for an edging to a bed of other flowers. It grows four to six inches high, and blooms very freely; its pretty yellow flowers in abundance render it very showy. It blooms all the summer season.‡



FLORAL
OPERATIONS FOR THE MONTH

IN THE FLOWER GARDEN.

ANNUAL flower seeds, as Clarkia, Collinsia, Schizanthus, Ten-week Stock, &c., now sown in small pots, well drained, and kept in a cool frame, or a spare corner in a cool greenhouse, through winter, will be suitable for turning out in the open borders at the end of March or in April. Such plants bloom early and fine; they are early ornaments for the flower garden; and as they decline, the spring-sown plants are coming into bloom. Seeds of many kinds, *now sown in the open border*, generally survive the winter, and bloom vigorously early the next season. *Carnations*: the layers should be taken off, severing them *at a joint* as near the root as possible. Only a few of the bottom leaves should be trimmed off to admit the compost to settle closely around the stem, and that no leaves may rot inside the soil, and be likely to damage the main stem. The compost in which to pot them must not be rich, or the plants will be likely to grow too vigorous, and become what florists term too gross. Equal portions of year-old turfy loam and leaf-mould, with a small proportion of sand mixed therein, is rich enough, and of a dryish texture, and the plants keep healthy in it if otherwise duly attended to. They must have a liberal drainage: over the broken pot, &c., spread a portion of moss or turfy loam, in order to prevent the compost settling amongst the bits of pots, and to allow a free passage for the water draining away. The compost must not be sifted, but chopped, and in its rough state. In potting, place two layers in each pot. When potted, put them in a cool frame for about ten days, keeping the lights closed, and shaded from mid-day sun; this contributes to an immediate striking root afresh: afterwards they may be fully exposed in a sheltered spot, having a thick floor of coal-ashes or boards to place the pots upon, in order to prevent worms entering. *Pinks*: beds of them may still be made, and the earlier the more successful: dig into the bed four inches in thickness of old manure; do it a week or so before planting, and plant as early in the month as you can. *Pansies*: beds of them should be made for next spring bloom. Pot some of all the best kinds in small pots, to be placed in a cool frame during winter. If the sowing of the seeds of biennials, as Scabious, Canterbury Bell, Brompton and Queen Stocks, &c., has been neglected, they should be attended to as early as possible. *Verbenas*: runners should be potted in small pots, a third filled with potsherds, and the rest with good loamy soil, placing them in a close cool frame for ten days, shading from mid-day sun; after which gradually expose them to open air. Attention to them should be *immediate*. *Bulbs*, as Hyacinths, &c., are now to be had, and the sooner they are potted the more vigorous they will bloom. *Chinese Primroses* should be encouraged for winter blooming. If mildew

appears on any plants, dust them with sulphur immediately. *Camellias* may be grafted; the operation may be performed with the greatest success by pursuing the method the French call "*graffe en placage*," which is merely inserting that portion of wood that includes a bud and leaf cut longitudinally into a corresponding cleft in the stock. The grafted subjects should be plunged in bottom heat, and kept covered for at least a month. *Roses* may still be budded. Nail to the wall young shoots of Banksian *Roses*. Cut clean away those not wanted. Prepare beds of *Sweet Violets*. *Roses* for forcing too. Collect seeds as they ripen.

IN THE GREENHOUSE, COLD FRAME, &c.

Cuttings of nearly all plants may be successfully struck yet; but the earlier they are put in the better. Towards the end of the month take in the tenderer greenhouse plants; but the house should be white-washed, &c., previously if required. Repot *Chrysanthemums*, if the pots they are in be full of roots; give mature water once a-week. See on culture the articles in early numbers of this year. *Cinerarias*: pot off singly the offsets, also seedlings. Seed may still be sown, but as early as possible, in order to have the plants strong enough to pot off before winter. Cuttings of bedding plants should be put in directly. Pot off singly rooted cuttings of *Pelargoniums*, &c. Cuttings of *Tea Roses*, *China*, *Bourbon*, &c., soon strike root at this period. See last number for remarks upon insertion, &c.

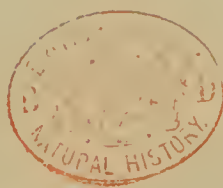
A SIMPLE METHOD OF DRYING AND PRESERVING SPECIMENS OF FLOWERS.

BY MR. H. STILWELL, OF PINE APPLE-PLACE NURSERY, LONDON.

(Continued from page 203.)

To do this it is necessary to have some common writing-paper cut into half-sheets, a large camel-hair pencil with the handle pointed, and the following mixture:—One ounce of gum-tragacanth, one ounce of gum-arabic, and one ounce of brown sugar. Mix the gum-tragacanth, and then add the other ingredients, adding water till it is of the consistence of cream. If a small piece of camphor is added, it will keep the mixture from fermenting, and prevent insects from destroying the specimens.

Having got a sufficient number of specimens belonging to the same order, whether of the *natural* or *Linnaean system* (I greatly prefer the *natural* arrangement), to fill a page without crowding, lay one on its face, and dipping the hair-pencil in the prepared mixture, spread it over the *whole* of the back part of the specimen, then lay it on half a sheet of the writing-paper, and press it down. Place the other specimens in a similar manner till the page is properly filled; then cover it with a sheet of paper, and place it under the press for a few minutes, in order to keep the specimens down till the gum mixture is dry. After being taken out of the press, write at the *top* of the page the name of the order, and the *situation* (country) where discovered, as well as the date when found, *under* each respective specimen.





Pentstemon's
1. Wrightii. 2. cyananthus.



FLORICULTURAL CABINET

OCTOBER, 1851.

ILLUSTRATIONS.

1. PENTSTEMON WRIGHTII.

THIS very beautiful, strikingly distinct *Pentstemon* was discovered by Dr. Wright in Texas, in South America. It is a perennial, growing freely, the flower-stems rising two to three feet high, and blooms profusely. Seeds of it were sent to the Royal Gardens of Kew, and plants have been in bloom all the summer in the open ground or pots, and are still flowering. The branching paniced spikes of flowers are from one to two feet long. The leaves are of a very pale colour. The plant appears to thrive in the open ground; but it is not yet proved at Kew whether it will endure the severity of winter without injury. Probably it may require a slight protection, similar to the *Chelone barbatum*, or *Pentstemon speciosa*. It will be easily increased, and a few plants may be preserved in a pit or frame, or some other sheltered place. It is a most charming species, and ought to be grown in every flower-garden.

2. PENTSTEMON CYANANTHUS.

This, too, is a beautiful flowering perennial plant, which was introduced into this country by Messrs. Lucombe, Pince, and Co., of Exeter. It is a native of the neighbourhood of Platte River, in the Rocky Mountains, in South America. Mr. Burke obtained seeds from thence; and Messrs. Lucombe, Pince, and Co. thus became possessed of the lovely species. The flower-stems rise from half a-yard to two feet high, and bloom in profusion. It is about as hardy as the *P. Wrightii*, and well merits a situation in every flower-garden. Some of the *Pentstemons* are liable to be affected by mildew. The best remedy is to dust the plants over and under the leaves with sulphur. Both the species we now figure flourish in compost of light loam, sandy peat, and leaf-mould, in equal proportions, with a sprinkling of bits of charcoal.

The *Pentstemon* family are very interesting, and many of the kinds

are exceedingly gay ; the whole are valuable plants for a flower-garden. An entire collection is well worth possessing, and may be procured at a low price.

NOTES ON NEW OR RARE PLANTS.

ACACIA BOMBYCINA.—A very handsome species from New Holland. It forms a small bush, the leaves an inch and half long, and half an inch broad. The flowers are in balls, half an inch through, of a bright rich yellow colour. Like numerous other beautiful species, this deserves a place in every greenhouse or conservatory.

APHELLANDRA CRISTATA.—This is a fine hothouse plant. The flowers are produced in large terminal branching paniced heads, of a brilliant orange-scarlet. Each blossom is two to three inches long, in form like those of the long tubed-shaped *Justicias*. It is in fine bloom at Messrs. Lee's, of Hammersmith.

CALCEOLARIA ALBA.—This very handsome half-shrubby species is but little known. It forms a pretty bush, about a foot to eighteen inches high. The foliage is very neat, narrow, about one-eighth of an inch broad, and from one to two inches long, produced in abundance, so as to clothe the branches. The flowers are borne in *large terminal panicles*, each blossom being nearly half an inch through, and *globe-shaped*. The plant is a profuse bloomer, and whether grown in pots or beds is a valuable acquisition for the greenhouse or flower-garden. We have found it succeed admirably in both instances.

CALCEOLARIA VIVID.—This is a shrubby variety, very beautiful for bedding. It is of medium growth, and the flowers are borne in large broad heads. Each blossom is nearly an inch long, crimson, with a light yellow cap (as the florists term it). It is remarkably pretty, and admirably suited for a bed. If purchased now, a stock might be struck this season for planting out next spring.

C. SULPHUREA-SPLENDIDA.—This is a half-shrubby variety, of medium growth, but a most profuse bloomer. The flowers are of a deep sulphur, good size, and in large paniced heads.

C. HARLEQUIN.—A shrubby variety, of medium growth, but a profuse bloomer. The flowers are of a smallish size. The upper side of a deep orange ; the lower side dark crimson, and singularly pretty.

CAMPANULA PUMILA PLENA.—Most of our readers know the little blue species of *Campanula* ; the one we now notice has *double blossoms*, and is very pretty either in beds, edging, vases, or pots. We find it thrive alike in each situation.

CANTUA BUXIFOLIA (*C. dependens of Veitch*).—See Figure in our Number for last June. This is one of the most beautiful flowering plants which has of late years been introduced into this country. It will form one of the handsomest ornaments, either grown singly in pots or beds, and will constitute one of the most charming bedding plants. Young plants should be obtained now, in order to be grown

into good-sized well-ripened specimens for turning out next spring. The plant grows freely, and is easily preserved through winter in a cool frame or in the greenhouse. Every garden, greenhouse, and room-window ought to be adorned with it.

CEANOTHUS CUNEATUS.—An evergreen shrubby plant from California. The flowers are produced in umbels, white; it does not blossom as freely as our older imported species, *C. azureus* and others.

COLLINSEA MULTICOLOR (MANY-COLOURED).—Messrs. Veitch, of Exeter, have introduced this beautiful *annual* from California. Like *C. bicolor*, it grows from one foot to half a yard high, and produces its gay flowers in vast profusion. It is much handsomer than the latter-named species, on account of the rich purple tint of its long floral leaves, and the pretty marking of the flowers. The middle boat-shaped lobe of the lower lip is a rich crimson, lower lip lilac, and upper lip lilac with a white spot in the middle, and beautifully spotted with blood colour. Each blossom is an inch across. It merits a place in every flower-garden. (Figured in *Paxton's Flower Garden*.)

CHRYSOBACTRON HOOKERII.—An Asphodelus-looking plant, which is a native of New Zealand, where it grows in large clumps in boggy places, and is said to cover the plain with a sheet of yellow when in bloom. The flower scape rises two to three feet high, bearing at the top a loose raceme (several inches long) of golden-yellow flowers. Each blossom (six petals) is about three parts of an inch across. It has been kept in winter in a cool frame in the Royal Gardens of Kew, where it has recently bloomed. (Figured in *Bot. Mag.*, 4602.)

DENDROBIUM CLAVATUM.—Thomas Denne, Esq., of Hythe, in Kent, recently obtained this very handsome flowering species from Assam, and it bloomed in the stove the present summer. The flowers are borne in close heads of five in each, and each blossom is about two inches across when expanded, of a rich orange-yellow colour, with a double blotch of deep brown. It is a valuable acquisition, and deserves a place in every collection.

DENDROBIUM ALBOSANGUINEUM.—A stove Orchidæa, which has been introduced into this country by Messrs. Veitch. Their collector, Mr. Lobb, found it in open forests near the Atran River, in Moulmein. The flowers are produced in terminal spikes, of five or six in each raceme. A separate blossom is about three inches across. The ground is a creamy-white, with two large blood-coloured spots at the base of the petals. The plant is stout, erect growing, and showy when in bloom. (Figured in *Paxton's Flower Garden*.)

ERYSIMUM ARKANSANUM.—This new species is in the Horticultural Society's garden, and it is stated to grow three feet high, and to be more beautiful than the fine orange-flowered *E. Peroffskianum*.

FUCHSIA EXPANSION.—Tube and petals white, and corolla a bright rose colour, thick and stout, and an abundant bloomer.

F. GLOBOSA MAGNIFICA.—Sepals very broad and of a rich crimson; corolla purple, shaded with rose up the middle. Each blossom is an

inch and a-half across. A very superb variety and free bloomer; it ought to be in every collection.

F. VOLTIGEUR.—Tube and sepals crimson, well reflexed; corolla dark purple. Very superior flower.

F. CLAPTON HERO.—Tube and sepals crimson; corolla *very dark*. A large and very superb flower.

F. MAZEPPA.—Tube rosy-orange; sepals bronzy-orange; corolla vermilion-scarlet. Strikingly handsome, and a free bloomer.

F. RESPLENDANT.—Tube and sepals a shining crimson; tube short, and sepals well reflexed; corolla rosy-purple. Very distinct and pretty.

F. SEDONIA.—Tube and sepals blush-white, with deep green tips; corolla rosy-purple. A very handsome variety.

F. MADAME SONTAG.—Tube, short, waxy white; sepals waxy white, much reflexed, fully exposing the corolla, which is a rosy-crimson, with a white bottom. A pretty and stout flower.

GAILLARDIA PICTA TRICOLOR.—This is a very beautiful variety. The flowers are about two inches and a-half across. The centre of anthers yellow, surrounded with rosy crimson, which is also surrounded with a circle of white, and the ends of the petals are of a bright sulphur. Very handsome. In Mr. Van Houtte's collection.

GREVILLEA LAVENDULACEA.—A neat greenhouse shrub, introduced by Messrs. Henderson, of the Pine-apple Nursery, Edgware-road, from the Swan River colony. The flowers are borne in terminal tufts, each half an inch long, with long filaments, of a pretty rose colour. (Figured in *Mag. of Bot.*)

HELICIA SANGUINOLENTA.—An orchid epiphyte, discovered by Hartweg in Peru, and is in the orchid stove at the Horticultural Society's Garden at Chiswick. It is of small stature, but each blossom is nearly two inches across, of a greenish colour, banded across with brown, and the lip white, with crimson veins. Neat and pretty.

LYSIMACHIA CANDIDA.—We have several pretty *yellow*-flowered species in our flower-gardens; but this is a *white*-flowered one, obtained from China. It is a profuse bloomer, the flower-stems rising a foot high, and the flowers are borne in close terminal racemes. It merits a place in every flower-garden, and may probably prove an useful bedding plant.

NYMPHÆA ELEGANS.—This very pretty Water Lily was discovered by Dr. Wright in New Mexico, who sent seeds to the Royal Gardens of Kew, where it has bloomed the present summer in what is known as the Victoria Water-Lily House. Each flower is about four inches across, having twelve to fourteen petals, of a yellowish-white, tinged towards the points with purplish-blue, and a centre of rich yellow stamens. (Figured in *Bot. Mag.*, 4604.)

PEDICULARIS MOLLIS.—An herbaceous hardy perennial, which grows about a foot high, the stems terminating in spikes of flowers, of a deep purple colour. Each flower is about half an inch long, and the open

mouth about the same across. This species was discovered by Dr. Hooker on the high mountains of Sikkim Himalaya, and has bloomed this season in the Royal Gardens of Kew. (Figured in *Bot. Mag.*, 4599.)

PELARGONIUM MOUNTAIN OF LIGHT.—This is another pretty variety of what are commonly termed “Variegated-leaved Geraniums.” It is somewhat in the style of *Flower of the Day*, but superior to it. The leaves have a leaf-shaped pale green mark in the centre, surrounded with a broad *white* belt. The surface of the leaf is much, “but very prettily,” crumpled or “waved.” The leaves of the *Flower of the Day* fall back from the centre to the edge; but in the present variety they are of better substance, and spread out firmly. The flowers are of a deep scarlet, each blossom about an inch across. It blooms freely. Messrs. Lee, of Hammersmith Nursery, have the entire stock.

P. BEAUTY OF THE PARTERRE.—The leaves are green, with a lighter centre, surrounded with a horse-shoe of darker colour. It is a profuse bloomer, of dwarf habit. The flowers are of a bright salmon colour. It is a charming variety, either for pots or bedding.

P. BRIDAL BOUQUET.—The leaves have a *leaf-mark* of deep green, with a broad *white* belt. The plant is a free bloomer. The flowers are of a deep crimson-scarlet. It is a beautiful variety. Mr. Henderson, of Wellington Nursery, St. John’s Wood, raised this and the two following varieties:—

P. PEACH BLOSSOM.—The leaves are large, and marked like *Flower of the Day*. The flowers are of a salmon colour, good form. It is a free bloomer.

P. GOLDEN ADMIRATION.—Centre of leaves pale green, with a broad belt of a *yellowish-cream* colour. It is a free bloomer, and the large trusses of bright scarlet flowers stand up well above the foliage. A fine variety.

PHILADELPHUS SATSUMI.—This pretty *Syringa* is a native of Japan, and is a hardy deciduous compact bushy shrub. The flowers are produced in pairs at the ends of the shoots; they are white, and each about an inch and a-half across. It is an acquisition for the shrubbery, and may be had at the London nurseries.

PHYSOCHLAINA GRANDIFLORA.—Lieut. Strachey collected this plant on the plains of Thibet, at an elevation of fifteen thousand feet above the level of the sea. It is like an *Hyoscyamus*, a hardy herbaceous perennial, the flower-stalks terminating in a large panicle of flowers. Each blossom, bell-shaped, is an inch long, and nearly as much across the mouth, of a yellow-green colour. (Figured in *Bot. Mag.*, 4600.)

SALVIA GESNERÆFLORA.—Several of the periodicals have recently contained this fine flowering species. We notice this in order again to record that it is one of the finest autumn and winter ornaments for the greenhouse. The brilliant light scarlet flowers, borne in profusion, in large terminal panicles, are very showy, and render it deserving a place wherever it can be grown.

SALVIA SPECIOSA.—This species is of medium habit, and blooms very freely. The flowers are of the richest scarlet, and exceedingly pretty. It blooms during the autumn and winter months, and is the more valuable on that account. It deserves to be in every greenhouse.

SARCOPODIUM LOBBII, VAR. *HENSHALLI*.—A stove orchid epiphyte. It was imported from Java by Messrs. Rollisson, of Tooting Nursery. The flower-stems are each about six inches high, bearing a solitary flower, which is three inches across. All the blossom is of a yellowish-buff, with the sepals streaked with brownish-purple. (Figured in *Mag. of Bot.*)

SPIREA LAXIFLORA.—A dwarfish bushy shrub from Nepal, quite hardy, and the flowers are produced in terminal spreading panicle heads, white. Its dwarf habit and free-flowering character render it valuable for the front of a border of shrubs.

At Messrs. Veitch's.

SAXE-GOTHE CONSPICUA.—This beautiful evergreen tree, from the mountains of Patagonia, has somewhat the appearance of the Yew. It has been planted in the open ground for several years, and proves as hardy as the *Araucaria*.

FITZ ROYA PATAGONICA.—This fine coniferous tree has also somewhat the appearance of the Yew, and having drooping branches.

LIBROCEDRAS TETRAGONUS.—It has the aspect of the *Arbor Vitæ*.

FAGUS OBLIQUA.—An evergreen Beech from Patagonia.

CASTANEA CHRYSOPHYLLA.—An evergreen Chestnut from California.

LAURUS AROMATICUS.—An evergreen from Chili, whose leaves are more fragrant than those of the Bay-tree.

MYRTUS UGNI.—A Myrtle from Chili, bearing a large purple fruit.

DESFONTAINES SPINOSA.—An evergreen resembling a Holly-bush, and produces beautiful scarlet *Honeysuckle*-like flowers.

BERBERIS DARWINII.—This we recently figured. It forms a handsome bush, and its shining evergreen foliage is exceedingly neat.

ESCALLONIA PÉPPIGEANA.—Bearing white flowers. A native of Peru.

TROPEOLUM SPECIOSUM.—A number of these pretty scarlet flowering plants are planted and trained to a north-aspected wall, and which bloom very freely, and have a handsome appearance. It endures the winter on the north side of the wall without injury, but will not thrive when exposed to the sun.—*Gardeners' Chronicle*.

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 222.)

BY ORION.

IT was about this period when Mr. Rendle, of Plymouth, first introduced a new and very superior method of advertising and "sending out" new Pelargoniums, and which eventually quite superseded the

old way, described at page 149; this was purchasing the raiser's best seedlings, and advertising them immediately after the termination of the exhibition season, with prices moderate in comparison with those of previous years; and this plan was found to answer so well, that very soon it became general, and it remained only for Mr. Beck to show that *one guinea* was a sufficient sum for any variety, unless it possessed a peculiar and novel character, and then *one guinea and a-half* was his outside limit. Mr. Lyne, of Cornwall, made a very successful beginning in 1843, by raising (or first advertising) his justly celebrated DUKE OF CORNWALL, priced at three guineas, which very speedily became the "flower of the day." It is a noble flower, with a fine large trussing habit, and, in my opinion, only now gives place to the same grower's FORGET ME NOT, a flower of after-years' production. *LORD EBRINGTON and *PRINCESS ROYAL, each at two guineas, and SUNRISE at three guineas, all contributed to prove that Mr. Lyne had realized great success, though in the first year only of his "coming out." Mr. Foster's star this year was *SIR ROBERT PEEL, a nice stout flower, in colour similar to CONSERVATIVE, but perhaps not so deep. FAVORITE was a light pink variety, much given to "sporting;" these two were each priced at three guineas, and the following of Mr. Foster's raising were each two guineas: LUNA, *NESTOR (a large flower), ROSETTA SUPERBA, and SAPPHIRE. Mr. Garth's best flowers were, UNIT, QUEEN PHILIPPA, each two guineas; WIZARD and *CONSTELLATION at three guineas. None of these call for any particular notice. Mr. Gaines had *AMULET, DUCHESS OF SUTHERLAND, and ORANGE PERFECTION, each at three guineas; LADY SALE, PRINCE OF WALES, and PRINCESS ROYAL, at two guineas. A good white variety, Lumsden's SARAH, also appeared; but this, like all the whites hitherto ont, possessed the invariable plum-coloured veins. Bassett's GLORY OF THE WEST, sent out at two guineas, was much admired, as was Blackford's THUNDERER at the same price; the latter was a large coarse-veined pink flower. QUEEN OF BOURBONS, a novel pink flower, long thrown out, with BELLE OF WARE, COMTE D'ORSAY, IMPERIALIS, and some others, each at two guineas, were, perhaps, worthy of notice in their day, but must be passed over in the present hasty glance. Though a few good flowers appeared, this was by no means a successful season compared with some others, and, therefore, let another year's productions be reviewed. Eighteen hundred and forty-four saw the *first batch* of Mr. Beck's flowers, and his productions from the first assumed that importance they have so long and greatly deserved. The names were BLACK PRINCE, BRITISH QUEEN, *CLEOPATRA, *LEONORA, *EVENING STAR, METEOR, *SUSANNA, and others, all sent out by Messrs. Lucombe and Pince, of Exeter, at moderate prices, varying from seven shillings and sixpence to one guinea: they were mostly dark flowers, of quite a different vein to any that had previously appeared. The same nurserymen also sent out a flower of some notoriety, PLUTO (raised by Mr. Thurtell), also at one guinea. This most likely was the parent of all the dark flowers hereafter raised with such *velvety blotches* as shown in MOUNT ETNA, CRUSADER, &c., and was then a good acquisition, in point of colour chiefly. Three large coarse flowers, all very similar,

were sent out this year—*IVANHOE, DRUID, and FEARLESS : size must have been their only recommendation. Mr. Cock, “the eminent cultivator,” of Chiswick, also had his CYRUS SUPERB, ELISE SAUVAGE, and MAID OF HONOUR, moderately priced at one guinea. Mr. Foster’s flowers were CONSTELLATION, CONFLAGRATION (very bright coloured, though small, and perhaps the parent of the PRINCE OF ORANGE style of flower), and HYBLA, also a bright flower (much in the way of ERECTUM) : the above were priced at two guineas, and the following at one guinea : PULCHELLUM, a nice purple, *LADY VILLIERS, *LORD CHANCELLOR, and THE PET. A large coarse flower, BAINBRIDGE’S BEGUM, deserves notice, but was too much veined for the price advertised, viz., two guineas. Mr. Gaines’s flowers were ELEGANS NOVA, three guineas, of very loose habit ; COTHERSTONE, EGBERT a small dark crimson, both at two guineas ; KING OF BEAUTIES, three guineas ; and PRINCESS ALICE, one guinea, a dull white, with the “everlasting” plum-coloured spots. Mr. Garth did not produce much this year : his QUEEN PHILIPPA, at two guineas, BYRON and PLANTAGENET, each at one guinea, and BLACK DWARF, at half a guinea, were but of small notoriety. ACKBAR, sent out at three guineas, became a good exhibition flower ; but the raiser is unknown. Lyne’s CELESTIAL was a flower of much novelty ; and the same raiser’s PRINCESS ALICE was also a selling flower ; they were both advertised at two guineas. Mr. Catleugh sent some flowers out this year under his name ; they were MULBERRY, VICTORIA, and TIPULA, each at one guinea. A good rich dark flower, named MOGUL, also first appeared, and divided public favours with PLUTO, which it much resembles ; it had this difference, the price was treble, being three guineas, though the quality was not superior. It will be found that after this, with few exceptions, prices became more uniform ; indeed, a large sale was commanded at a guinea or even a guinea and a-half. Few amateurs, or even nurserymen, would support the old-fashioned system of high prices ; so it eventually became quite general.

We have now arrived at an important epoch in our progress. The appearance of a new amateur with an entirely fresh stock gave quite an impulse to the Pelargonium trade ; and that he was successful, both as an exhibitor and seedling raiser, may be seen on glancing over the reports of the grand exhibitions.

NOTE.—Those marked (*) received prizes at Chiswick, &c., as seedlings.

PROPAGATING SHRUBBY CALCEOLARIAS.

BY C. M., BERKS.

SHRUBBY Calceolarias, which, without due care, often damp-off in cold pits or frames during winter months, may be easily raised and preserved by putting in cuttings in October in garden-mould, mixed with a good supply of road or river sand, and covering them with a hand-glass. For a few weeks they will require to be shaded from mid-day sun, and protection when frost is severe ; but the glass may be kept closed all the winter, and without other care they will make strong plants for

bedding out the following season. This simple plan having answered so well, I am induced to give it publicity, hoping also to encourage other connoisseurs thus to publish the result of successful experiments.

ADAPTATION OF PELARGONIUMS FOR TRAINING AGAINST A WALL, &c.

WHAT are commonly termed "Scarlet Geraniums" are now so greatly improved in quantity and quality as to have become one of the most popular flowering plants for adorning the conservatory, greenhouse, dwelling-house window, and flower-garden. So very generally are they cultivated, and so strikingly ornamental for the greater part of the year, that we may exclaim, "What should we do if bereft of them?" The vacuum occasioned could not be equally well filled up. During the last and present year we have paid particular attention to this charming tribe of plants, by taking notes of all improved varieties that came under our notice, and have recorded them in the successive Numbers of the FLORICULTURAL CABINET. By the improvements effected we now possess varieties of very diminutive growth, progressing onwards successively to gigantic stature, all profuse in bloom, and in colours, varying from white up to the richest hues of scarlets and crimson, many of them, too, diffusing an agreeable perfume. General observation affords proof of their adaptation as ornaments for the habitations above stated. Some varieties, however, are better suited to particular purposes than others are, some of which we shall particularize.

Four years back we had the designing of grounds, flower-gardens, &c., connected with a new mansion, which had a broad stone terrace along the south, east, and west fronts. The front wall of the terrace was five feet high, and the face of it was formed into recesses of six feet long, between each of which there was a projecting portion extending six inches beyond the recess front of the wall, and two feet broad. Such was the continuous arrangement from end to end. A border for flowering plants was formed along the front of the terrace, three feet wide and two feet deep, there being six inches of rough materials, as brick-bats, stones, &c., laid over the bottom to compose a drainage, and the rest filled up with good turfy loam, which had been prepared in heaps a year previous.

In order to have plants trained against the wall, a neat wire framework was fixed; and early in April as many Pelargoniums, of the scarlet flowering section, were planted in every recess as was required to fully cover the space during the season. The varieties planted were the strong growing, so as to reach the height of the wall in due course; and in arrangement the adjoining kinds were as different in colours as we could obtain, selecting those which produced the best contrast. The projecting portions between the recesses were planted with the most showy and abundant flowering *Petunias*, *Maurandias*, *Heliotropiums*, *Double Nasturtiums*, *Tropæolum tricolorum*, *pentaphyllum*, and *canariense*; *Passiflora carulea*, *Luphospermum maculatum* and *Cliftonii*; *Thunbergias*, white, yellow, and buff, each with dark eye;

Clematis Sieboldii and *azurea grandiflora*, &c. This kind of planting had been determined two years previously; and *strong* plants had been provided of nearly all required. When in full bloom the whole, and every particular portion, had a most handsome appearance. The various plants against the projections produced a pretty contrast and variety, and gave relief from any sameness in colour. The border was additionally filled with the best of herbaceous plants, greenhouse plants that bloomed freely out of pots, and the prettiest annuals. Care was taken not to have any robust plants, but neat, showy, and fragrant. The following season the whole was occupied in a similar manner, with some improvements in new flowers; and though we have not seen it since that time, we doubt not but additional improvements yearly occur.

Vases filled with suitable plants were placed along the coping stone of the terrace wall, that being eight inches higher than the interior pavement. Each projection in the face of the wall formed part of a pillar, and upon each of these pillars a vase was placed. Of course some cost and trouble was incurred in these matters; but the beauty and fragrance very amply repaid in enjoyment for those particulars.

What was accomplished in such an extended scale may in principle be realized in proportion in a lesser one. Where there is not a wall to train against, a wood fence may be constructed to answer every purpose, and at a small expense too. We have seen several of such erected for the sole purpose of training *Chrysanthemums* to; and in order to protect the flowers from frost, a thin canvas cover was fixed on a roller, and the plants were covered every evening. Such a provision might be given to the *Geranium* wall, and thus prolong the period of blooming.

We have not a list of the *Geraniums* which were trained against the terrace wall, but the following we can strongly recommend for such purpose; they are vigorous growers and free bloomers, and comprise all the shades of colours, as well as much variety in the marking of the leaves:—

PRINCESS ALICE (Conway's).—The leaves are green, without marking. The flowers are a vermilion colour, with a striking white eye. Flower of good form.

FIRE QUEEN (Barker's).—Leaves green. Flowers rich scarlet, full size, fine form, and in very large trusses.

CHERRY CHEEK.—Leaves green. Flowers of a rosy-peach colour, good form, and in fine heads. Very pretty.

IVERY'S SCARLET.—Leaves deep green, with a *very dark* horse-shoe marking. Flowers rich scarlet, and of good form.

VIVID.—Leaves green. Flowers light scarlet, large and showy.

VOLUNTEER.—Leaves green. Flowers bright scarlet, with a small white eye. Pretty.

GLOBE COMPACTUM.—Leaves green, with horse-shoe mark. Flowers in large trusses, standing erect beyond the foliage. Good form.

COMPACTUM SUPERB.—Leaves green, horse-shoe mark. Flowers light scarlet, large trusses.

LADY RACHAEL RUSSELL.—Leaves green. Flowers rich scarlet, with white eye, good form. Pretty.

CAPTAIN DARLEY.—Leaves green, with slight horse-shoe mark. Flowers of a pretty salmon-scarlet, good form, and fine trusses.

BROMPTON HERO.—Leaves green. Flowers of a deep scarlet-red.

COMMANDER-IN-CHIEF.—Flowers orange-scarlet, fine form, and large trusses. Very pretty.

ROYALIST.—Leaves when young have a horse-shoe mark, which disappears as the leaves advance, and they become wholly green. Flowers large, a brilliant scarlet, and white eye, in fine trusses.

SHRUBLAND SUPERB.—Leaves green. Flowers rich scarlet, good form, in fine trusses.

PINK NOSEGAY.—Leaves green. Flowers of a striking pink colour; the blossoms are not of superb form, but very distinctly pretty.

CERISE-UNIQUE.—Leaves green, with a lighter centre. Flowers of a pretty cherry colour, good form.

FLOWER OF THE DAY.—Centre of leaves light green, with a creamy-white belt. Flowers light scarlet. Very distinct and pretty.

PINK-FLOWERED IVY-LEAF.—Leaves a rich green. Flowers a pretty pink, not of superb form, but neat.

WHITE-FLOWERED IVY-LEAF.—Leaves green. Flowers white, with slight crimson marks.

PURPLE-FLOWERED UNIQUE.—Leaves very pretty, of a rich green. Flowers of a beautiful rich purple. Handsome.

LILAC-FLOWERED UNIQUE.—The only difference from the above is the colour of its flowers.

ORIFLAMME.—Leaves green. Flowers a brilliant scarlet, with a very distinct white eye, and fine form.

GEM OF SCARLETS.—Leaves green, with a dark horse-shoe mark. Flowers deep scarlet, with small white eye; compact trusses of bloom.

All the above are well adapted for training, and can be procured at a very reasonable cost. They are valuable, too, for the conservatory or greenhouse.

The border in front of a terrace, or other wall, fence, &c., might be planted with the various dwarf-growing Geraniums, which now comprise so many distinct coloured flowers and foliage. Placed in the most distinct contrast with the colours of those trained, they would have a pretty appearance; and some being of very tiny growth, would form a very pretty edging where desirable.

Also, instead of planting a different class of plants against the projecting parts, as Maurandias, &c., Geraniums of strikingly different colours from those growing on either side could be appropriated with effect, and would produce a more gay appearance.

BRIEF REMARKS.

THE SEEDLING PELARGONIUM EXHIBITION.—In drawing your attention to the result of the recent exhibition at the Regent's Park, I am sorry to say a *true* and *correct* description of the flowers exhibited there has not yet appeared; and I think your readers would be much obliged if you gave a short description of those which "were not placed," as well as those which had prizes awarded them. It seems

that our old friend Beck is pronounced beaten at last, for out of the seven prizes awarded, only one of his flowers was considered deserving, and that only a sixth. But in my opinion Beck is as good as any of them now; his seedlings do not shine *as such*; they are most admired when on the exhibition tables *as dozens*; and it would gratify me and many others were any spirited cultivator to exhibit, say six of Beck's best with six of Hoyle's best, six of Foster's, or six of any other raisers, to decide which are the best, "take them all in all;" or it might be done by having a sweepstakes for the best six, as was done with Dahlias a year or two since.—*An Admirer of Mr. Beck, but not of the Florist.*

MEETINGS OF SOCIETIES.—NATIONAL FLORICULTURAL, August 7.—Mr. C. P. Lochner in the chair. A first class certificate was awarded to a variegated scarlet Pelargonium, named Mountain of Light, from Messrs. Lee, of Hammersmith. Several plants of it were shown, all dwarf and bushy. The foliage is beautifully variegated, the truss good, and the flowers bright scarlet. Mr. Costar's Picotee, called Christabel, received a Certificate. Mr. Holland had a promising heavy purple variety, named Countess of Wilton. Mr. Edwards sent collections of Carnations, Picotees, and Dahlias. Messrs. Henderson, Phlox Mayii, the tall purple Lobelia, called Aurora, and the pretty Gloxinia tricolor. Hollyhocks in spikes, Carnations, Picotees, and Dahlias came from Mr. Bragg, of Slough; a Hollyhock, called Purple Perfection, from Mr. Laing, of Twickenham; and a nice exhibition of Marygolds from Mr. Barnes. These constituted the principal subjects exhibited on this occasion.

NATIONAL CARNATION AND PICOTEE SOCIETY, August 4.—The first meeting of this new society took place at Slough. There was great competition, and the blooms were large and well coloured. *Carnations (Amateurs)*: 1. Mr. M. May, Sonning. 2. Mr. J. Edwards, Holloway. 3. Mr. Newhall, Woolwich.—*Picotees*: 1. Rev. A. Matthews, Weston-on-the-Green. 2. Mr. M. May. 3. Mr. Lochner, Paddington.—*Carnations (Open Classes)*: 1. Mr. Turner, Slough. 2. Mr. Bragg, Slough. 3. Mr. Willmer, Sunbury.—*Picotees*: 1. Mr. C. Turner. 2. Mr. Bragg. 3. Rev. A. Matthews.—*Yellow-ground Picotees*: 1. Mr. Bragg. 2. Mr. Turner. 3. Mr. Hoyle, Reading. 4. Mr. Willmer. Several Seedlings received Certificates. We have thought it better to give the names of the most conspicuous flowers exhibited in each class, than to give the entire lists; and in doing this we have included some new varieties of Carnations. In Scarlet Bizarre, Admiral Curzon, Lord Lewisham, Lord Raneliffe, and Bolingbroke were in good order. Crimson Bizarres were very numerous and good. Lord Milton, Duncan, Jenny Lind, Owen Glendower, Black Diamond, Puxley's Queen, and Queen of Trumps were in excellent condition, as were also Puxley's Favourite and General Monk, the latter having the best white in this class, and otherwise good. In Pink Bizarres, May's Falconbridge stands high, being large and well marked. The old but favourite flower, Puxley's Prince Albert, was very fine, and had but few equals. Sarah Payne, Twyford Perfection, and Henry Kirke White were also shown. In Purple Flakes, Beauty of Woodhouse, Premier, Squire Trow, Pains, and Perfection were the favourites.

Scarlet Flakes were represented by Cradley Pet, Simpson's Queen, Puxley's Standard, and Africanus. Of Rose Flakes, Puxley's Princess Royal, Flora's Garland, May's Ariel, Poor Tom, Lorenzo, Antonia, and Wood's Haidee were the best.—*Picotees*: These advance towards perfection much faster than Carnations do. Foremost in the heavy red-edged class was Mrs. Norman, a full-sized variety, of first-rate properties, fully maintaining the opinion given of it last season; Prince of Wales, King James, Hogarth, and two of Mr. Fellowes's seedlings were good; also an intermediate variety, between red and rose. Costar's Christabel is a neat pleasing flower, of good properties, without the slightest bar. Light red: Youell's Gem, Duchess of Sutherland, Miss Holbeck, and Dodwell's Mary; the latter is good in size, and very evenly marked. Heavy purple: Dodwell's Alfred, Lord Nelson, Portia, Lady H. Moore, Prince Arthur, Viola, and Duke of Rutland, the latter a fine constant flower, were in the best possible order. In light-edged purple, Matthew's seedling was the best; it is a superb flower. In this numerous class the following were good: Ophelia, Ganymede, Willoughby, Circe, Jupiter, Juliet, and Fellowes's seedling '51. Heavy rose and scarlet, the most attractive class of all, was represented by Venus, Green's Queen, Princess Royal, Marris's Victoria Regina, a bright fine flower, and Marris's Grace Darling, a flower similar to Princess Royal, but wider in the petal; Unexpected is a medium-sized neat variety; and Jeannette has a fine petal, but is rather thin. Light-edged rose: Mrs. Barnard, as usual, stood at the head of this class; and Countess Howe is a pleasing bright variety.—The meeting for 1852 will be held, we believe, at Norwich.

DERBY CARNATION AND PICOTEE SHOW, HELD IN THE TOWN HALL, August 6.—This society is celebrated for showing the best kinds, and the finest blooms of any in the country. The following are the particulars of the present exhibition:—

Carnations.—*The best Six Flowers in each Class*.—*Scarlet Bizarres*: 1. Admiral Curzon, Mr. Dodwell. 2. Ditto, ditto. 3. Ditto, ditto. 4. Ditto, ditto. 5. Ditto, Mr. Buswell. 6. Ditto, Mr. Dodwell.

Crimson Bizarres: 1. Lord Milton, Mr. Dodwell. 2. Duncan, ditto. 3. Queen Victoria, ditto. 4. Ditto, ditto. 5. Owen Glendower, ditto. 6. Duncan, Mr. Adams.

Pink and Purple Bizarres: 1. Princess, Mr. Dodwell. 2. Ditto, ditto. 3. Twyford Perfection, ditto. 4. Lady of the Lake, ditto. 5. Seedling, ditto. 6. Sarah Payne, Mr. Adams.

Purple Flakes: 1. Earl Spencer, Mr. Dodwell. 2. Squire Meynell, Mr. Buswell. 3. Premier, Mr. Dodwell. 4. Ditto, ditto. 5. Beauty of Woodhouse, ditto. 6. Premier, ditto.

Scarlet Flakes: 1. Firebrand, Mr. Dodwell. 2. Ditto, ditto. 3. Hero of Middlesex, ditto. 4. Firebrand, ditto. 5. Ditto, ditto. 6. Africanus, Mr. Adams.

Rose Flakes: 1. Lady Ely, Mr. Dodwell. 2. Ariel, ditto. 3. Lovely Ann, Mr. Adams. 4. Lorenzo, Mr. Dodwell. 5. Unknown, ditto. 6. Lorenzo, ditto.

Picotees.—*The Best Six Flowers in each Class*.—*Heavy-edged Red*: 1. Prince of Wales, Mr. Dodwell. 2. Elizabeth (Robinson),

ditto. 3. Ditto, ditto. 4. Ditto, ditto. 5. Prince of Wales, Mr. Parkinson. 6. Lady Dartmouth, Mr. Dodwell.

Light-edged Red: 1. Gem, Mr. Dodwell. 2. Mary, ditto. 3. Ditto, ditto. 4. Seedling (Mrs. Wood), Mr. Merryweather. 5. Ditto (70), Mr. Dodwell. 6. Gem, ditto.

Heavy-edged Purple: 1. Alfred (Dodwell), Mr. Dodwell. 2. Ditto, ditto. 3. Ditto, ditto. 4. Duke of Rutland (Hollyoake), ditto. 5. Alfred (Dodwell), ditto. 6. Duke of Rutland (Hollyoake), ditto.

Light-edged Purple: 1. Juliet, Mr. Dodwell. 2. Seedling (Lady Franklin), Mr. Merryweather. 3. Enchantress, Mr. Dodwell. 4. Lorina, Mr. Bayley. 5. Delicata, Mr. Dodwell. 6. Ditto, ditto.

Heavy-edged Rose: 1. Princess Royal, Mr. Buswell. 2. Queen, Mr. Dodwell. 3. Venus, ditto. 4. Miss Rosa, ditto. 5. Venus, ditto. 6. Queen, Mr. Bayley.

Light-edged Rose: 1. Mrs. Barnard, Mr. Dodwell. 2. Ditto, Mr. Buswell. 3. Ditto, Mr. Dodwell. 4. Ditto, ditto. 5. Ditto, Mr. Bayley. 6. Sophia, Mr. Buswell.

Besides the above, there were five Prizes given for the best twelve Carnations of any class, and the best six also. For Picotees, too, there were five Prizes for the best twelve, and the best six of any class. These collections contained superb flowers of all the best kinds. The following were very fine:—

Carnations.—*Scarlet Bizarres*: Admiral Curzon, True Briton, Broughton's Sir R. Peel, Elliott's Duke of Sutherland, and Lord Rancliffe.

Crimson Bizarres: Lord Milton, Duncan, Owen Glendower, Gladiator, Dodwell's Othello, Puxley's Jenny Lind, and General Monk, most beautiful.

Pink and Purple Bizarres: Sarah Payne, Princess, Lady of the Lake, and Twyford Perfection. This is a pretty class of flowers.

Purple Flakes: Squire Trow, Squire Meynell, Premier, Beauty of Woodhouse, and Lord Byron.

Rose Flakes: Flora's Garland, Lady Ely, Ariel, Lorenzo, May's King John (a first-rate seedling), Lovely Ann, and Madame Sontag, a most superb flower in all respects.

Scarlet Flakes: Justice Shallow, Hero of Middlesex, Lydia, Cradley Pet, and William the Fourth.

Picotees.—*Scarlet or Rose-edged*: Headley's Venus, Marris's Victoria Regina (a superb kind), Marris's Grace Darling, Miss Rosa, Princess Royal, Green's Queen Victoria, and Mrs. Barnard: this was very fine.

Purple-edged: In heavy edges Dodwell's Alfred was pre-eminent; Hollyoake's Duke of Rutland, very superb, which in a full centre surpasses Alfred. In light edges May's Ophelia is especially beautiful in all respects; also May's Juliet is a superb flower.

Red edges: Heavy edge, May's Sebastian, a fine variety; Marris's Prince of Wales, very fine; Lady Dartmouth, very pretty; and Robinson's Elizabeth, very large and strikingly showy; Fellow's Julia Romeo, a fine flower, a seedling not yet sent out.

Some other superb varieties of Carnations and Picotees were fine,

but at that particular day were not in prime condition. Our readers will, however, see what varieties may be selected for exhibiting; and it is with a view to assist in this matter we insert the above particulars.

HORTICULTURAL SOCIETY, *September 2.*—Messrs. Lane, of Great Berkhamstead, produced two small imported Stanhopeas, and an example of Warczewicz's *Achimenes Margaretæ*, a new kind, with just sufficient flowers on it to show what a fine thing it might become under good cultivation. The blossoms are pure white, and approach in size those of *longiflora*. Mr. E. G. Henderson, of the Wellington-road Nursery, sent young plants of *Æchmea fulgens* and the new sort called *Æ. miniata discolor*; *Gesnera zebrina*, and an improved variety of it named *splendens*; *Vriesia splendens*, with a gay spike of scarlet bracts at least a foot in length; *Clitoria braziliensis*; and the scarlet *Isotoma triflora*. Mrs. Summersby, gardener to Major Martyn, had a plant of *Azalea fulgens* scarcely an inch high, with three large flowers on it. This was obtained by taking off the flowering point from an old plant, and striking it; and it was stated that the blooms were larger and finer on the cutting than on the parent. Mr. Fleming, gardener to the Duke of Sutherland, at Trentham, communicated an old Queen Pine-apple, weighing seven pounds. It was an exceedingly handsome fruit, but hardly sufficiently ripe. A Knightian Medal was awarded it. From Mr. Turnbull, gardener to the Duke of Marlborough, at Blenheim, came some Noblesse Peaches, one of which weighed very nearly eleven ounces. They had, we believe, been ripened under glass. A Certificate of Merit was awarded them. Some Raspberries were furnished by Messrs. Lane, of a sort known at Great Berkhamstead by the name of *Victoria*. The fruit shown was gathered from canes which were reported to have been in bearing from the beginning of the season until the present time.

ROYAL SOUTH LONDON FLORICULTURAL, *September 3.*—The fifth and last exhibition this season took place on this occasion, and was nothing behind its predecessors in attractiveness. The show of Dahlias was as usual immense in number. Collections of Cut Roses were produced in high character for freshness and fragrance. In Mr. Paul's group, which was first, were *Therese Margot*, *Etendard de Marengo*, *Pius IX.*, *Angeline Boccella*, *Comte de Montalivet*, *Julia de Fontanelle*, *Jean of Are*, *Comte Bobrinsky*, *Ophrie*, *Chereau*. Mr. Francis sent *Cloth of Gold*, *Elise Sauvage*, *Princess de Modena*, *Leveson Gower*, *Augustine Mouchelet*, *Gonda*, *Maria de Beaux*, *Géant des Batailles*, and *Vicomtesse de Cazes*. Hollyhoeks, both in spikes and detached blooms, contributed largely to the general effect, and were greatly admired. Among the sorts were *Aurantia*, *Rosy Queen*, *Rosamond*, *Elegans*, *Sulphurea perfecta*, *Spectabilis*, *Magnum Bonum*, *Delicata improved*, *Surprise*, *Coccinea*, *Rosea grandiflora*, *Bella Donna*. Mr. C. Baron, *Model of Perfection*, *Enchantress*, *Walden Gem*, *No-blissima*, *Sulphurea perfecta*, *Sir W. de Eresby*, *Standard of Perfection*, *Susannah*, and *Sir D. Widdeburn*, the last four being Scotch varieties. — *Verbenas*: 1st. *Macrantha*, *Defiance*, *Laura*, *St. Margarets*, *Surprise*, *Model of Perfection*, *Voltigeur*, *King*, *Heroine*, *Exquisita*, *Wonder*, *Vergrets*, *British Queen*, *Reine Hortense*, *Lady of the Lake*, *Figaro*,

Iphigene, Perfume, Aspasia, Minerva, Desdemona, Shylock, and Othello. Second dozen were St. Margaret, British Queen, Reine Hortense, White Perfection, Voltigeur, Lady of the Lake, Exquisite, Enchantress, Ninon de l'Enclos, Laura, and Pochye.—*Dahlias*: Of private collections there were 5 twenty-fours, 17 twelves, 6 six fancies, and 5 six new sorts. *Dealers*: 11 twenty-fours, and 5 twelve fancies. To these must be added several for extra Prizes, together with many seedlings, three only of which, however, received Certificates, viz., Laura Lavington, Attraction, and Dr. Frampton. *Amateurs*, 24: 1st Prize, J. Edwards, Esq., with Sir C. Napier, Whale's Elizabeth, Summit of Perfection, Negro, Fearless, Mr. Palmer, Regina, Snowflake, Grenadier, Mr. Herbert, Duke of Cambridge, Duke of Wellington, Queen of Lilacs, John Edwards, Yellow Standard, Jullien, Thames Bank Hero, Earl of Clarendon, Cobden, Admiral, Miss Herbert, Roundhead, General Fauchier, and Baltic. 2nd, Mr. Weedon, Hillingdon, with Beeswing, Mr. Edwards, Mr. Seldon, Earl of Clarendon, Cocceina, Anticipation, Toison d'Or, Shylock, Magnificent, Bathonia, Scarlet Gem, Elizabeth, Roundhead, Richard Cobden, Duke of Cambridge, Sir F. Bathurst, Admiral, Model, Seraph, Grenadier, Negro, Jullien, and Psyche. 3rd, Mr. Hopkins, Brentford. 4th, Mr. White, Chelmsford. Twelve Blooms: 1st Prize, Mr. J. Robinson, Pimlico, with Queen of Lilacs, Mrs. Seldon, Thames Bank Hero, Lady St. Maur, Earl of Clarendon, Mr. Seldon, Duke of Wellington, Cobden, Fearless, Essex Triumph, Sir C. Napier, and Sir F. Bathurst. 2nd, Mr. Black, gardener to E. Foster, Esq., Clewer, with Leda, Model, Barmaid, Black Prince, Duke of Wellington, Queen of the East, Essex Triumph, Mr. Seldon, Mrs. Seldon, Earl of Clarendon, Sir C. Napier, and Cobden. 3rd, Mr. James, Stoke Newington, with Earl of Clarendon, Mrs. Bacon, Duke of Wellington, Negro, Mr. Seldon, Sylph, Sir F. Bathurst, Admiral, Summit of Perfection, Hon. Mrs. Ashley, Essex Purple, and Sir C. Napier. 4th, Mrs. Mosley, Maida-hill. 5th, Mr. Bennett, Dulwich. 6th, Mr. Allen, Shacklewell. 7th, Mr. Kirkpatrick, Camberwell. 8th, Mr. Harris. *Fancy Varieties*, six Blooms: 1st Prize, Mr. Black, with Empereur de Maroc, Raphael, Princess Louisa, Jenny Lind, Mrs. Hansard, and Pretty Polly. 2nd, Mr. Edwards, with Mrs. Hansard, Rachael, Pretty Polly, Jenny Lind, Lady Grenville, and Elizabeth. 3rd, Mr. Pope, with Highland Chief, Triomphe de Magdeburgh, Jenny Lind, Mrs. Hansard, Reizende von Elsthal. *New Flowers*: 1st Prize, Mr. Black, with Model, Leda, Barmaid, Roundhead, Sir C. Napier, and Nepaulese Prince. 2nd, Mr. James, with Nil Desperandum, Napoleon, Jullien, Roundhead, Admiral Napier, and Nepaulese Prince. 3rd, Mr. Robinson, with Regina, Nil Desperandum, Roundhead, Sir C. Napier, Duke of Rothesay, and Nepaulese Prince. *Nurserymen*, 24 Varieties: 1st Prize, C. Turner, with Cobden, Barmaid, Model, El Dorado, Princess Radzivil, Beeswing, Queen of Lilacs, Mr. Seldon, Fearless, Thames Bank Hero, Magnificent, Black Prince, Earl of Clarendon, Gem, Nepaulese Prince, Duke of Cambridge, Sir C. Napier, Mr. Herbert, Duke of Wellington, Blanchfleur, Princess Louisa, Essex Triumph, Mrs. Seldon, and Sir F. Bathurst. 2nd, Mr. Keynes, with El Dorado, Queen of Lilacs, Duke of Welling-

ton, Seraph, Magnificent, Mrs. Seldon, Earl of Clarendon, General Faucher, Sir F. Bathurst, Yellow Superb, Essex Triumph, Gem, Beeswing, Miss Chaplin, Fearless, Snowflake, Mr. Seldon, Nonpareil, Madame Gouberts, Mr. Herbert, Princess Radziville, Frederick Jerome, Sir Robert Peel, and Negro. 3rd, Mr. Barnes, with Magnificent, Princess Louisa, R. Cobden, Fearless, Grenadier, Earl of Clarendon, Ambassador, General Faucher, Mr. Seldon, Mr. Palmer, Fame, Miss Chaplin, Seraph, Yellow Superb, Negro, Duke of Wellington, Queen of the East, Summit of Perfection, George Glenny, Uranus, Mrs. Williams, Thames Bank Hero, Charles Turner, and Sir F. Bathurst. 4th, Mr. Bragg. 5th, Mr. Drummond. 6th, Mr. Legg. *Nurserymen*, twelve Fancies: 1st Prize, C. Turner, with Empereur de Maroc, Rachael, Elizabeth, Mrs. Willis, Pretty Polly, Mrs. Hansard, Lady Grenville, Jeannette, Mrs. Labouchere, Jenny Lind, Gasparino, and Floral Beauty. 2nd, Mr. Keynes, with Princess Charlotte, Comic, Lady Grenville, Conspicua, Mrs. Hansard, Madame Wachy, *Striata perfecta*, Empereur de Maroc, Rainbow, Admiration, Jenny Lind, and Flying Dutchman. In class showing, seedlings, the best Dahlia was Dr. Frampton (Rawlings); the best fancy, Laura Lavington (Keynes); the best Fuchsia, Nil Desperandum; the best Hollyhock, King of Roses (Bragg); the best Verbena, National; 2nd, Koh-i-noor; 3rd, Orlando.

GLADIOLUSES.—This lovely tribe of flowers are great favourites of mine; and I was much pleased to see the descriptive particulars of many new varieties in the last year's volume of your Magazine. This year, however, I have not observed any notice of other new ones; and being much pleased with a very select collection of well-grown beautiful varieties which were shown at the Horticultural Society's last exhibition, held in the Chiswick Gardens, I send the names and description of each, with a hope it may be of use to persons desirous of improving their collections of this beautiful flower:—

Rex Rubrorum, well-expanded dark crimson.

Princeps, large waxy blush, handsomely striped.

Spectabile, light rose, shaded pink.

Candida, blush, shaded rose.

Punctata, lilac, curiously spotted.

Pulcherrima, bright pink, white stripe.

Sir Robert Peel, lilac, with rose stripe.

Elegans, fine rose, with distinct white stripe.

Albus, French white, striped.

Conspicua, very rich salmon, novel.

Striata, warm pink, striped and shaded.

The above, I was informed, are early-blooming varieties, and the following are of the habit of *G. ramosas*, and have much larger and more brilliant colours; most of them are new hybrids:—

Insignis, a well-known deep rosy-crimson flower.

Robin Hood, rich rose, white stripe.

Fanny Elster, fine rose, handsomely striped.

Rising Sun, glowing orange-scarlet.

Abd el Kader, very bright scarlet, white stripe.

Van Dam Issart, light pink, with a deep crimson stripe, very distinct.

Lord John Russell, scarlet, white and violet feathered.

Princess Sophia, light rose, crimson and white stripe.

Wilhelminus, deep crimson-scarlet.

Beeswing, orange-scarlet, white stripe.—*An Ardent Admirer*.

CHINESE PRIMROSES.—Plants that are to bloom through winter should not be allowed to flower in autumn, pinch off all that appear prior to the beginning of September. Guano water, given once or twice a-week, greatly improves the size of the blossoms, and the coloured ones become of much deeper hue. It is one of the most charming winter flowering plants.

CAPE JASMINE.—Will any of your correspondents be kind enough to inform me in what manner I ought to treat a plant of double Cape Jasmine, which I purchased in Covent-Garden Market a short time since, and which seems to require treatment it does not receive, as it has lost its leaves, and looks in a very mournful condition. The person of whom I bought it told me it would do in an ordinary sitting-room; but this I do not find to be the case.—*Flora*.

TO DESTROY THE WIREWORM.—A subscriber would be glad to know the best method of destroying the wireworm, which has made dreadful ravages among the Carnations in her garden.—[Several liquids will kill the wireworm on being poured upon them; but they would destroy the plant too if poured upon it. The wireworm is very fond of carrot, turnip, or oil-cake; and if slices of any of them or all be just buried under the soil around the plant, the insect will be found attached to or cased in the baits, and then are easily taken away and destroyed. The baits should be examined morning and evening, and again buried, &c. A short attention will soon extirpate the race.—
EDITOR.]

FLEMING'S SALTING MACHINE.—Observing remarks in recent Numbers of your Magazine on the use of the above-named machine upon walks, I beg to state that I have had one in operation for the last month, and have found it of the greatest utility. It is a most admirable machine, and I am delighted with the satisfactory results upon about five acres of gravel roads and walks. The cost of keeping the above in a decent manner of cleanliness, per annum, has been upwards of thirty pounds; and I am confident that by using this machine, and salting as directed, I can keep the five acres of roads and walks in the *best possible condition, free from moss or weeds*, for less than ten pounds. I beg to recommend it to all concerned.—*A Midland County Nobleman's Gardener*.

ANEMONES.—An article on this handsome tribe of flowers was inserted in the volume of your Magazine for 1850, but nothing was said about the lovely single flowered, which are so interestingly beautiful as border flowers. By sowing seeds in pots in February, and turning them out entire as soon as strong enough into the borders, then a sowing in the borders where I intend them to bloom in April, June, and the end of August, I have a succession of bloom nine months out of the year. Those

seeds sown in June are covered over by means of a tile; it keeps the soil damp till the plants are up, and yet admits a current of air to pass through. Their great variety in colours and continued succession of flowers very amply repay for the little attention required. I do not take up my tubers, but leave them in the ground from year to year. During winter some usually perish; but saving my own seed, I have only to scatter a little in the borders, &c., and I always secure a supply. As spring flowers, from March to May, none can equal them for ornament, especially when to be seen from a dwelling-room.—*Clericus.*

TECOMA JASMINOIDES.—This is one of the most beautiful flowering climbing plants; and seeing in a recent Number of the CABINET a correspondent complains she could not get this plant to bloom freely, and solicits information relative to its management, so as to succeed satisfactorily,—I, therefore, observe that, having several strong plants, I turned two into the open ground against a south-aspected wall in the spring of last year. The plants were well furnished with *spurred* shoots, which are obtained by pinching off the leads of side shoots; they are the productive flowering shoots the second season. Now my plants bloomed freely in 1850; but this year (1851) they began to bloom in May, and have continued to the present time, and are the admiration of all who have seen them.—*C. P. B.*

THE CLOTH OF GOLD ROSE.—I have seen several stands of Roses at some of the different exhibitions of the season, and I have also searched your reports of the same; but nowhere could I see or find mention of the above variety, to my thinking, the “Queen of Roses.” How is this? Is there greater difficulty in its culture, or is there only a particular soil that suits it? Having heard of parties who have found difficulty in flowering it, I thought I would just furnish you with the history of a magnificent specimen of it growing in this neighbourhood. The second week in June I visited the gardens of T. B. Western, Esq., of Felix Hall, and was there shown by his gardener, Mr. Bowie, a tree of it covering ten feet of ground, upon which we counted one hundred and fifty blossoms then open and opening, some of them measuring four inches over, an inch and a-half in the cup, and beautifully perfect in shape; many of the blossoms, just opening, were the size of hens’ eggs. Last week I saw the same tree, and counted eighty-six blooms then upon it, with the prospect of many more for the after-part of the season. It has made shoots of this year’s wood from five to six feet in length; it is growing in a moderately heavy loam; but I learned that formerly there was an old asparagus bed near where this tree now stands, and I concluded that it was this that has made it what it is in four years, proving that it is richness of soil that it requires to make it successful; and I am sure, could rose-growers have seen this specimen in the perfection in which I saw it, instead of its being generally discarded from our lists, no one would think his collection complete without the Cloth of Gold.—*R. R. W., Kelvedon. (Gardeners’ Chronicle.)*

WARDIAN GLASS CASES.—I should be very much obliged if you, or any of the subscribers to the FLORICULTURAL CABINET, would write some account of the proper management of plants in Ward’s cases. I have lately had one given me, and am very anxious to make it useful

to strike cuttings in; and I also wish to try and preserve plants in it during the winter. The zinc tray having no drainage at the bottom, the mould in it becomes extremely wet; and I (as well as two other ladies who have lately purchased Wardian cases) should be very glad if any of your correspondents would give a few *practical* hints or information as to the management of plants in them. I have a little book, published by Mr. Ward some years ago; but it gives very little information to a *gardener*. I want to know if they are always made without any escape for the rain, which will come in when they are placed in a garden in the summer; and also if they are placed in a balcony open to the south, how one is to avoid the mould becoming saturated with rain in the winter. Any hints will be most acceptable to me; and as I have taken in the FLORICULTURAL CABINET from the *very first* of its being issued, I shall hope to see some information in one of the Numbers very soon, as I always read them with great interest.—*Victoria*.

(We applied to N. B. Ward, Esq., for information, who very obligingly forwarded the following.—EDITOR.)

“To answer your correspondent’s inquiries in full would require much more time than I can now possibly spare. I am about to publish a new edition of a little work ‘On the Growth of Plants in Closed Cases,’ in which it is my intention to satisfy, if possible, the gardener as well as the botanist. There are, however, one or two points in your correspondent’s letter which I have much pleasure in attending to. She mentions the mould becoming too wet in consequence of the admission of rain, and the want of drainage. Both these causes are defects in the construction of the cases, which should in all cases be made sufficiently tight to prevent the ingress of water from without or its egress from within; and there should invariably be an escape for any superfluous water from the bottom of the case; and this is the more requisite, as, although there may not be too much moisture in the first instance, it is requisite sometimes to give a little additional water, or to pour lime-water through the mould to destroy slugs, &c. The other *essential points* are to imitate as closely as possible the natural conditions of the plants with respect to the amount of heat, light, moisture, and periods of rest which the plants may respectively require, and which are very variable in plants from different regions and localities. Much may be done in a small case by a little management. Thus—Cactuses and Ferns can be grown together, by intervention of a little arch in rock-work, built up in the centre of the case, where it is obvious that the plants in the top of the arch will have double the amount of light and half the quantity of water which the plants in the bottom obtain. A small case of this kind may be seen in the north transept of the Great Exhibition. I regret that time will not allow me to answer more fully at present.—*N. B. Ward. Clapham Rise.*”

NEW SEEDLING DAHLIAS.—The following have been shown at the recent meetings held in or around London, and received certificates or commendations from the judges:—

Dr. Frampton.—In the way of Princess Radziville, with superior

properties. It is a medium-sized flower, light ground, edged and mottled with lilac-purple. Well up in the centre, good petal and outline.

Laura Lavington.—A dark salmon-brown, with white tip; medium size; good average form, and centre well up.

Triumphant.—A ruby-red, medium size, good outline and centre.

Miss Creed.—Pale yellow, with white tip. Very pretty.

Miss Ward.—Lemon-yellow, with white tip. Said to be an improvement on Mrs. Hansard.

Wonderful.—Amber, streaked with purplish-pink. Good form.

George Villiers.—Dark ruby, of good properties in outline, petal, and centre.

Morning Star.—Deep orange-scarlet; large.

Una.—A large white flower.

Phantom.—A bright orange and buff, well up, deep, and good outline.

Miss Matthews.—Scarlet, with white tip. Good in all particulars.

Sir F. Thesiger.—A good-formed lilac flower, of medium size.

Flora M'Ivor.—A rosy-purple, with white tip.

John Davis.—A good-formed crimson, after the style of Richard Cobden.

Sarah.—Mottled lake and white.

Malvinia.—Mottled purple and lake; large flower.

HELIOTROPIMUM LEAVES AFFECTED WITH LARGE BLACK SPOTS.—I have several plants in the greenhouse, whose leaves are rendered most unsightly with large black blotches. If some reader will inform me of a remedy and preventative for the future I shall be greatly obliged.—*A Clergyman's Daughter*. [We have known this to arise from the under side of the leaves being affected with mildew. The remedy is, dust the under side with sulphur. The bite, too, of insects produces dark spots. And we have noticed in hot weather that, owing to the rugged surface of the leaves, water will lodge in the hollows where the surface is flat, and when watered over head during hot sun it becomes heated, and the parts are scalded. Water over head in the evening, or quite *early* in the morning.--EDITOR.]

ARTIFICIAL ROCK WORK.—Among the numerous natural embellishments which are so abundantly scattered over the face of this country, and the natural facilities afforded for beautifying the private pleasure ground of the wealthy proprietor, there are but few instances where these natural facilities have been advantageously turned to account in artificial decoration.

Rockwork may sometimes be placed in the proximity of glass structures, and even in flower-gardens, with good effect, when these are of a gothic or rustic character; but here the rockwork must have none of the savage wildness of nature about it, and consequently nothing of the impressive picturesqueness of natural rocks. It should be rendered conformable to the objects around it, and appearing to be placed there for the purpose of cultivating those plants that succeed best among rocks, or for showing the natural habits of plants that grow naturally among rocks, or those that produce a better effect when planted on

them. In these cases the rocks should be more artistically and tastefully arranged. It should be clearly shown, by their arrangement and accompaniments, that no attempt is made to imitate Nature, but rather a proper place for displaying and cultivating the plants that are grown upon them.

Rockeries of this kind depend for their interest and beauty more on the disposition of the plants than on any influence possessed by themselves; and therefore they should never be allowed to become bare, otherwise they dwindle down to meaningless conceits. They ought also to be formed of choice materials, as specimens of rare minerals, metallic ores, rich conglomerates, stalagmites, fossils, scoria, fine specimens of crystallography and vitrification, forming a kind of cabinet, which excites the attention of the spectator, and affords interest and gratification to the more curious examiner, and tending also to divest the rockery of any incongruity which might arise from its being out of place.

It may likewise be observed, that rockeries should always be in detached groups, and, whether large or small, should never present straight lines or flat surfaces. The more irregular the arrangement, the more striking the effect produced. It should also be so situated as to be partly shaded and overhung by pendulous trees, to screen it from the glare of sunshine; it should always be rather cool, and, if possible, shut in by itself by shrubbery, and, if possible also, should be accompanied by a *jet d'eau* or basin of water, or both.

To attempt giving rules for the arrangement of rockeries is useless, as their forms entirely depend upon the taste of the builder; and in this kind of work, more than any other branch of ornamental gardening, will the taste of the builder be brought out; and here also will be perceived the difference between those who have studied from nature, and those who have no vivid conceptions of natural beauty. It may here be observed, however, that the whole design should be diversified in its outlines, in its heights, and in its general forms. No two parts should bear the slightest resemblance to each other, and the greater the irregularity, the more interesting the effect.—*Dowding's American Horticulturist*.

LEONOTIS LEONURUS (LION'S TAIL).—This is one of the *finest greenhouse plants grown*, and deserves to be in every one. I have had a plant in bloom the past summer for several months, which, with its noble spikes of splendid orange-scarlet flowers, formed a brilliant object. I had it in my collection since 1836; but with the usual treatment of greenhouse plants I could not bloom it. I resolved to adopt another method, and I therefore had a one-year old plant shifted into a pot a foot in diameter, in a rich loamy soil, not sifted, well drained; I placed it in a forcing pot heated by hot water, and having a brisk and moist temperature it grew rapidly; and having a free supply of water, absorbing much, it produced fifteen vigorous spikes of bloom, and when just expanding I had it removed to the greenhouse, where it continued to bloom till November. The plant can be procured at the nurseries for a trifling sum, and it deserves a place in every greenhouse collection.



IN THE FLOWER GARDEN.

HOLLYHOCKS.—Now make new plantations of these noble flowers. Auriculas and Polyanthuses, Carnations, Pinks, &c., should be placed in their winter quarters, in a dry, sunny, sheltered spot, but, at the same time, where a free circulation of air can be admitted on all proper occasions. The surface soil must be loosened, and a slight sprinkling of fresh compost be spread over it. Any plants out in the open beds, as Lobelias, &c., should be taken up and potted for winter preservation in pits, frames, &c. Chrysanthemums grown in the open ground, and required for blooming in-doors, should be taken up as entire as possible, and be potted with due care; they will bloom fine. All tender kinds of plants, as Scarlet Geraniums, Verbenas, in fact every kind requiring winter protection, should be housed *immediately*; it is bad policy to put off a single day longer. Already we have had strong frost, which has injured the tender things in some places. [Our Dahlias were most severely damaged by frost on September 1st and 2nd.—EDITOR.] All plants like light; place them as near to the glass as convenience will allow, the farthest off the worst. Tender Roses, grown out of doors, should have protection over the roots, &c., or be taken up and housed. Prepare the Tulip-bed.

DAHLIAS.—Let the crown of the roots be covered, heaping a few inches deep of soil around the stems. Beds of Pansies may be made. Shrubs of all kinds should be planted. Roses now planted soon run new roots, and become well established before winter; the soil being somewhat warm, excites the roots immediately. Pansies may still be planted in beds; also Pinks.

SHRUBS, &c., FOR FORCING, FOR WINTER BLOOM.—Such as are to bloom early should be gradually prepared, potted immediately, if required, and by the middle of the month introduce such as are desired to bloom by Christmas into the house or pit. The kinds which are well deserving such attention are Roses, Honeysuckles, Jasmynes, Azaleas, Kalmias, Persian Lilacs, Andromedas, Carnations, Pinks (of which Anne Boleyn is the best), Rhododendrons, Rhodora, Deutzias, Ribes, Spirea prunifolia, Mezereum, Gardenias, Cupheas, Heliotropes (the new blue is fine), Scarlet Pelargoniums, Cactus, Eranthemums, Justicias, Salvia, Gesnerias, Corræas, Chinese Primrose, Aconites, Mignonette, Primroses, Cinerarias, Stocks, Persian Iris, Crocus, Cyclamens, Sweet Violets, Hyacinths, Lily of the Valley, &c. Seeds of many annuals should now be sown in the border, and others in pots; such will bloom early next spring. Brachycoma, Schizanthus retusus and Hookerii, Rhodanthe, and Salpiglossis, seeds now sown, plants potted off when strong enough, will bloom vigorous next spring.

IN THE GREENHOUSE, STOVE, &c.

If the stock is not housed it ought to be done immediately, and much judicious attention is necessary in properly placing a mixed collection of plants. Care must be taken so that one plant may receive something like its proper treatment without interfering materially with the well-being of its neighbours; and whilst the tender ones must be placed in the best part for protection from cold wind, &c., as Polygalas, Pimeleas, Leschenaultias, Aphelexis, Boroneas, Gompholobiums, and Diosmas, are injured by being placed where there is a *current* of wind. Let each plant have all the space possible, and the robust large-leaved kinds, and the very slender delicate sorts, should be kept as separate as can be arranged, so as to allow a due circulation of air. Be careful that the pots, &c., be perfectly clean before arranged for their winter situation. Re-pot Cinerarias, &c. Let Camellias which are to bloom early be placed in a warmer situation, also any Chinese or Indian Azaleas, so that they may be gradually advancing. In watering the stock of plants, let it be done in the early part of the day, so that any excess may be dried up before evening, and damps be avoided, otherwise mouldiness will ensue. Thin away the flower-buds of Chrysanthemums; water occasionally with liquid manure. Calceolarias strike root freely; now pot off seedlings to bloom next season.

PELARGONIUMS.—The plants headed down some weeks back, now have pushed shoots an inch or two long; these should be thinned properly. The plants must be repotted in order to have the roots well established before winter. Shake off the soil, and shorten some of the long roots, so that young fibres be promoted, which is essential to the vigour of next bloom. Have a free drainage in the pots. If a compost, such as is recommended by Mr. Cock in a former Number, is not possessed, then take turfy loam well chopped up, with an equal portion of sandy peat and well-rotted leaf-mould, and half the quantity of well-rotted dung. Give air to the plants in the day time, and be careful not to give over-much water at the roots, for if saturated they will be injured. Young struck plants should have the tops pinched off to cause the production of side shoots, to render them bushy for next season. Repot some of the SCARLET GERANIUMS (so called) to bloom during the autumn and winter; they are charming ornaments. So with *the new Tree Carnations*, of which there are near twenty varieties.

VICTORIA REGIA.

WE again called at Mr. Weeks' Nursery to see this fine plant in the open-air bason. It was in most robust health, having nine large leaves, but which do not turn up at the edges, as is the case when grown in high temperature. There were, too, sixteen flowers, expanded or unexpanded. The one in bloom was fifteen inches across, being larger than any we have seen either at Kew or Syon House.





Fuchsias

1. Prince-Arthur 2. Globosa Magnifica



FLORICULTURAL CABINET

NOVEMBER, 1851.

ILLUSTRATIONS.

1. FUCHSIA PRINCE ARTHUR (NICOLLS).
2. FUCHSIA GLOBOSA MAGNIFICA (KIMBERLEY'S).

FUCHSIA, so named in honour of a celebrated German botanist, LEONARD FUCHS. The first plant of this genus, which was discovered in Chile, and introduced into England, was *F. COCCINEA*, in the year 1788. The pretty growth of the plant, and the graceful manner in which its elegant flowers were produced, contributed to render it, at that period, quite a wonder in the floral world, and plants were sold by the first Mr. James Lee, of Hammersmith Nursery, at twenty pounds each. It was then cultivated as a *stove* plant. Writing upon this valuable and beautiful flowering plant, the learned Mr. Martyn, then Professor of Botany at Cambridge, states, "The *scarlet Fuchsia* is a plant of very peculiar beauty, producing its charming rich pendant blossoms during most part of the year. The petals in the centre of the flower are especially deserving of notice, they somewhat resemble a small roll of the richest purple-coloured riband. It is a most elegant plant for the drawing-room or study."

In 1796 another species was discovered in Chile, and introduced into England, viz., *F. LYCIOIDES* (Box Thorn like). It is not so showy as its predecessor, but forms a neat shrub, the flowers being a bright rose-colour. It is scarce at the present day, but is a very pretty plant for the greenhouse, and deserves a place in every one.

It does not appear that any attempts were made to obtain hybrid seedlings from the above two species, and the next introductions were, after a lapse of twenty-seven years, viz., in 1823, *F. GRACILIS* and *F. MACROSTEMON*, both obtained from Chile. The following year, 1824, *F. ARBORESCENS*, *EXCORTICATA*, and *TENELLA*, were added to the previous ones; they too were from Chile. The above kinds having been received, and some bearing seed freely, seedlings were raised, and in 1826 several beautiful varieties bloomed, and plants were eagerly

sought after and purchased at high prices. This success induced numerous growers to commence raising seedlings, and each following season, from that time, improved varieties have come forth. The skill of hybridizers has succeeded in obtaining *large-sized* flowers, having *pure white* tube and sepals, with crimson, rose, blue, and lilac corolla. The *finest* of this section is the one we now figure, PRINCE ARTHUR. It grows freely, blooms abundantly, and its *large-sized* beautiful flowers have a striking appearance. It highly merits a place in every collection of Fuchsias.

The globe-flowered section is a very interesting one, and the variety we now figure, GLOBOSA MAGNIFICA, is *far superior* to any other we have seen. The blossoms are *very large*, and when fully blown, the rich-coloured corolla is well exposed to view. The plant is of good strong habit and blooms very freely. It grows erect two or three feet high in one season, and is an admirable variety for a flower-bed, vase, or pot culture. It has a nice effect when this variety is grown in the middle portion of a bed, and then surrounded with dwarf-growing kinds, the contrast being very pretty. It merits a place in every collection.

NOTES ON NEW OR RARE PLANTS.

AERIDES ROSEUM.—A fine orchid, producing a raceme of rosy-pink flowers, about a foot long; leaves light-green, thick and fleshy, nine inches long. The specimen from which the figure was taken is in the splendid collection of Messrs. Loddiges. (Figured in *Paxton's Flower Garden*, plate 60.)

BROWALLIA JAMESONII.—This plant (which we figured a short time back), although it is generally considered a shy bloomer, Hector Munro, Esq., of Druid's Stoke, near Bristol, has succeeded in flowering profusely in the greenhouse last June. In the summer season it grows freely against a south wall, but in winter it requires a warm greenhouse or moderate stove. (Figured in *Bot. Mag.*, 4605.)

BROWNÆA ARIZÆ.—A splendid stove-plant, is a native of the province of Bogota, in South America, from whence it was sent by Mr. Hartweg. It forms a tree of thirty to forty feet in height. The flowers are of a clear red, each about an inch and a half across, somewhat resembling in shape the *Pyrus Japonica*; they are produced in large drooping heads, which have a noble appearance. It requires a moist stove and is best propagated by the seeds. (Figured in *Paxton's Flower Garden*, plate 59.)

CAMPTOSEMA RUBICUNDUM.—A fine stove-climber, with racemes of scarlet-red flowers, much like a Laburnum in shape; each flower is about an inch long, and the raceme about a foot in length. It is a native of South Brazil, from whence it was received at the Royal Botanic Gardens at Kew, where it has lately flowered in the Palm stove. It has been for a long time cultivated in Germany, under the name of *Kennedyia splendens*. (Figured in *Bot. Mag.*, 4608.)

DELPHINIUM WHEELERII.—A variety of *D. speciosum*, with a dense spike of bright-blue flowers, about a foot long, each flower an inch across. It was raised from seed saved from *D. speciosum*, by Mr. Wheeler, of Warminster; it will be an acquisition to the flower-garden. (Figured in *Mag. of Botany*.)

EPIDENDRUM VERRUCOSUM.—This beautiful orchid was introduced from Mexico by Messrs. Loddiges, and a fine specimen of it flowered in July last, at the Royal Botanic Gardens at Kew; each flower is about four inches across, sepals and petals rosy-lilac, narrow. Lip of the same colour, with a yellow stripe up the centre. (Fig. in *Bot. Mag.*, 4606.)

FUCHSIA, GREAT WESTERN.—An hybrid, raised between *F. fulgens* and *F. Beauty of Leeds*. It is a pale-flowered one, of very large size. It was raised by Mr. Patterson, gardener to Baroness Wenman, of Thame Park.

F. UNIQUE.—Tube and sepals a deep red. Corolla a deep violet-purple. Flower two and a-half inches long and shows the corolla well. Very fine.

F. IGNEA.—Tube and sepals a bright red, and corolla a violet-purple. Flower two and a half inches long, showing the corolla well. Very fine.

F. SPLENDIDA.—Tube and sepals bright-red. Corolla bright-blue. Tube short. Reflexes well, an inch and a-half across. Very pretty.

F. MULTIPLEX.—Tube and sepals bright-crimson, well reflexed. Corolla deep-purple and very double, resembling a double-violet.

The above have rich dark-coloured corollas, contrasting very distinctly with the tube and sepals. They exhibit the corolla to view much better than the *F. CORALLINA*, and merit a place in every collection.

F. SERRATIFOLIA MULTIFLORA.—The handsome flowering species most of our readers know, the present variety is a good acquisition. The flowers are a little less than the former, the tube two inches long, of a pretty rosy-lilac colour, and the corolla a light orange. The plant blooms much more freely than the original species. It merits a place in every collection. Both kinds bloom during autumn and winter, and form handsome ornaments for the greenhouse or sitting-room. They blossom, too, at any other part of the year, when potted and otherwise treated to promote it at various times.

GALEANDRA DEVONIANA.—One of the most rare and finest of the South American orchids. It was first discovered by Schomburgk, on the river Rio Negro, and lately Mr. Spruce met with it in the same place, and he forwarded a Ward's case to the Royal Botanic Gardens at Kew, which contained flowering specimens. It grows five to six feet high, and in patches from ten to twelve feet round. The flowers are produced in a tall stem, each blossom about four inches across; sepals and petals purple and green; lips nearly white, tipped and varied with purple. (Figured in *Bot. Mag.*, 4610.)

GRAMMANTHES CHLORÆFLORA.—A succulent annual, introduced from the Cape of Good Hope, growing almost three inches high and flowering very freely, each flower about half an inch across, star-shaped, deep blood colour, with bright yellow edges, and when the flower gets older it turns a deep blood colour. It requires to be sown in pots in the greenhouse, and at the latter end of May it may be turned out into the open borders. (Figured in *Bot. Mag.*, 4607.)

HOYA CUMINGIANA.—A stove-climbing plant, which also forms an erect bush, having short heart-shaped parchment-like leaves. The flowers are produced in rather small-sized umbels, of a greenish yellow, with a purple corona in the centre of each blossom. Messrs. Veitch introduced it to their establishment, where it has bloomed.

IPOMÆA OBLONGATA.—This species was discovered growing in a valley of the Buffalo River, near King William's Town, British Kaffraria, by Captain Rooper, who sent some of the roots to the Rev. Thomas Rooper, of Wick Hill, near Brighton. It is a half-hardy species, flowering best in a cool frame; it throws out long trailing stems and produces rosy-purple flowers, about three to four inches across, the roots are somewhat clubbed, in masses. It flowered with Mr. Rooper from May to September, and produced flowers at almost every leaf-joint. (Figured in *Mag. of Bot.*)

LIGUSTRUM JAPONICUM.—This is somewhat like the Chinese Privet, *L. lucidum*, but forms a more compact dwarf bush, and the panicles of white flowers are rather thinner. It is a neat hardy evergreen shrub and an acquisition to our shrubberies. It was introduced by Dr. Siebold.

LILIUM LODDIGESIANUM.—Was received by the Horticultural Society from the Imperial Gardens, Nikita, in the Crimea, and also from Dr. Fischer, of St. Petersburg, under the name of *L. monadelphum*. It is a clear yellow with small spots, and in form it resembles the turncap Lilies. It is quite hardy and deserves cultivation. (Figured in *Paxton's Flower Garden*, plate 58.)

LILIUM SINICUM.—A greenhouse bulbous plant from China. The flower-stems rise about a foot high, each blossom is of the turncap shaped, two inches across, of a deep rich scarlet colour. They are produced in terminal heads of three blossoms. It is a very neat, dwarf, handsome plant, which was introduced by the Horticultural Society some time back, and recently by Standish and Noble, of Bagshot.

NARCISSUS.—Three seedling varieties, raised by E. Leeds, Esq., of Manchester; two varieties are whitish, with orange cups, and the third is pale yellow, with a long deep orange cup. (Figured in *Mag. Bot.*)

PELARGONIUM GRACE DARLING (Sheppard's).—Of the fancy class. Upper petals dark-clouded, edged with orange-scarlet. Lower ones orange-crimson. Very distinct and handsome.

P. PURPLE STANDARD (Foster's).—Upper petals of a dark-clouded velvet-purple, with a lighter margin. Lower ones a rich purple. This is a valuable acquisition, such a coloured variety being most desirable.

P. SHYLOCK (Foster's).—Upper petals black, edged with crimson. Lower ones a rich purple. A very striking flower.

RHODODENDRON CHAMPIONÆ.—A new species by Captain Champion, growing abundantly among the rocks, in a ravine at Fort Victoria, Hong Kong, who sent drawings of it to Sir W. J. Hooker. It is a shrub growing about seven feet high, leaves dark-green above and rusty colour beneath; flowers are of a beautiful bright flesh colour and white shaded. It will, no doubt, be an acquisition. Captain Champion, in his botanical excursions, also discovered the following:—*Azalea indica* var. *phœnicea*, common in the ravines near Hong Kong; it flowers early in the spring, and in March it is most beautiful. *A. squamata* is still more common, it produces a few flowers easily in winter, and when the fogs and humid atmosphere set in, about February and March, they burst into luxuriant bloom; the masses of lilac flowers at a distance look well, but the shrub being destitute of leaves, does not look so well on near approach. *A. myrtifolia*, a shrub growing four to five feet high, the leaves bright green, flowers pure white, campanulate when in bud, but when expanded one and a half inches across, with the three lower segments spotted with dark violet. *Enkyanthus reticulatus*, a handsome shrub, when the branches are detached from the plant the blossoms continue fresh for a very long period placed in water. It is much used in China for ornamenting the dwelling-houses.

SAXE-GOTHEA CONSPICUA.—A new hardy evergreen coniferous tree, introduced by Messrs. Veitch and Son, who received it from their collector, Mr. Lobb. It was discovered growing on the mountains of Patagonia, forming a fine tree about thirty feet in height; it has been growing out in the open air at Exeter four years without having any shelter.

SIPHOCAMPYLUS AMENUS.—A native of Central America, from whence it was received amongst a collection of orchidea sent by M. Ghiesbrecht to the gardens of the King of the Belgians at Lacken, and has been sent to Messrs. Knight and Perry by Monsieur Louis V. Houtte, of Ghent. It bloomed in November last at the Exotic Nursery, Chelsea. It is a half-shrubby stove plant, about one foot high; flowers produced in a spike, rich scarlet-red, distinct and handsome species. (Figured in *Mag. Bot.*)

SPIRÆA CALLOSA, introduced from the north of China, by Messrs. Standish and Noble; flowers bright rose, produced in branched cymes; very pretty.

Plants now in bloom at the Royal Gardens of Kew.

GEORGIANA CERVANTES.—This new Dahlia is in bloom in the open flower bed. It forms a *tree-like branching plant*, five feet high, and its branches extend as much across. The blossoms are single, four inches across, of a deep-orange colour. Although the plant has not

been thinned of any of its branches, it does not, like the Dahlia in general, grow into confusion when left unpruned, but its growth is that of a small *tree-like* plant properly balanced with branches.

BEOTIA SCHREBERE.—This is a fine border plant, apparently annual, growing six feet high, with numerous branches, and each shoot terminating with a rich orange-coloured flower, about three inches across, very similar in appearance to a single orange-coloured Marigold. These are produced numerously, and the branching head being four feet across, it has a very ornamental appearance, and is a valuable acquisition to the autumnal flowers of the garden.

ASTER NOVÆ ANGLIÆ.—This is one of the prettiest, its profusion of silk-like purple blossoms producing a nice appearance. The *Æ. NOVÆ ANGLIÆ ROSEA* is still more beautiful, similar in form, but of a fine rose colour. They merit a place in every flower-garden. We have a descriptive list of the *best* kinds, which we shall insert in our next Number. These gay “autumn ornaments” are not grown equal to their merits, as well as some of the *Solidagos*, *Rudbeckias*, &c. A description of which will also be given, to assist our readers to a selection of such desirable ornaments.

In the Greenhouse.

SALVIA BICOLOR.—A stiff close-growing neat bush, three feet high. The leaves are small, and the flowers are borne in large branching, terminal panicles; they are of a sky-blue colour, the lower broad lip having a large tip of white.

ROELLIA CILIATA.—Its small heath-like foliage, and the profusion of large flowers, render it very ornamental. Each blossom is somewhat like in form to the blue spring Gentian, but about one-third the size, of a light-blue, having a black ring around the inside of the flower, near its margin. When properly grown it is very beautiful, and deserves to be in every greenhouse.

BEGONIA MARITIMA.—This handsome species, of dwarfish growth (two feet high), with its numerous large, rich pink blossoms, is exceedingly ornamental, and likely to be so during the entire winter months.

INDIGOFERA JUNCEA, RUSH-LEAVED.—It is a stiff-branching upright-growing plant, three feet high. The flowers are pea-shaped, one-third of an inch across, produced numerously in branching spikes, of a pretty rosy-lilac colour, and have a pretty appearance. It bears pruning-in, and can be bloomed freely any size desired.

MURALTIA STIPULACEA.—This genus was separated from the well-known *POLYGALA*. The plant grows erect, two or three feet, branching, small, stiff, heath-like foliage. The flowers are pea-formed, small, bright-purple, with a white keel, and produced numerously in long spikes. Very neat and pretty.

BAUREA RUBIODES.—A neat-growing plant, having small oblong leaves, and blooms freely. Each blossom, of eight petals, which nearly fill up a circle an inch across, are of a pretty light-pink colour.

RONDELETIA SPECIOSA MAJOR.—Its rich red blossoms with a golden eye, produced in terminal cymous heads, are very ornamental. Each

blossom is half an inch across. It merits a place in every greenhouse or stove.

CROWEA SALIGNA.—A neat-growing, small willow-like leaved shrub. The flowers have each four petals, and the blossom about an inch and a-half across, of a pretty lilac-pink colour.

MALVA TRILOBA.—This neat-growing shrubby Mallow flowers freely. Each blossom, of five petals, an inch across, is white, with a pale pink spot at the middle.

CHILODIA SCUTELLARIOIDES.—A neat bushy dwarf shrub, with Heath-like foliage. It blooms profusely, the flowers being Mimulus-shaped, half an inch long, of a pretty lilac-purple colour. It deserves a place in every greenhouse.

TRACHYMENE LINEARIS.—A dwarf bushy plant, having small narrow leaves. The flowers are small, white, produced in corymbose terminal heads, each head about an inch and a-half across. The plant blooms freely, and the pretty heads of blossoms remind us of a diminutive head of the flowers of our Elder-tree.

ACACIA PLATYPHYLLA.—*A. ovalifolia*, *A. olivifolia*, and *A. undulæfolia*, are in beautiful bloom, their rich yellow globe-shaped fragrant flowers being pleasingly ornamental. Numerous other kinds are showing bloom in profusion, which will beautify the greenhouse throughout the winter and spring months. This family of plants deserves to be more generally grown, and every greenhouse ought to contain a selection.

BRACHYCOMA IBERIDIFOLIA.—Some pots of this beautiful annual are in fine bloom, their numerous Michaelmas Aster-like flowers of blue, lilac, white, purple, &c., are exceedingly pretty and ornamental, and make a fine autumn display.

CHORIZEMA CORDATA, *C. VARIUM*, and several of the beautiful *CORREAS*, were in bloom, each being pretty. The latter tribe of plants is one of the finest for winter and spring bloom. Easy of cultivation and profuse in flowering render them very valuable.

In the Stove.

GLOXINIA MACULATA.—This noble flowering species is grown in a pan six inches deep and sixteen across. In such a pan there were nine flowering stems, each producing from twelve to fourteen blossoms. The flowers are large, of a pretty French-lilac colour, with a dark blotch inside. It is a fine plant for the stove.

BEGONIA FUCHSIODES.—Its fine scarlet blossoms are now becoming very ornamental, also those of the *GESNERA ZEBRINA*, *IXORA COCCINEA*, *CHIRITIA MOONII*, and *ANGELONA GRANDIFLORA*, its long spikes of light-blue flowers are very pretty.

The purple and the white-flowered *Menziesas* are now very pretty in the beds of shrubs, a few circular beds are filled with them, and the centres being raised, the effect is now exceedingly pretty. These interesting Heath-like plants and flowers ought to be grown in every shrub border or bed. They bloom profusely, and may be purchased at a small cost.

OBSERVATIONS ON THE ARRANGEMENT AND MANAGEMENT OF PLANTS GROWN IN WARDIAN CASES.

BY MR. WILLIAM CHITTY, FLORIST, OF STAMFORD-HILL, NEAR LONDON.

THE remark occurring in the course of the observations upon Wardian Cases, in your last Number of the FLORICULTURAL CABINET, that "much may be done in a small Case by a little management," is exemplified in the multitude of instances in which collections of plants are so successfully cultivated in them. The difficulty appears to be with the possessors of these cases, as with the possessors of larger means, to repress a desire to grow everything in them. Hence we very often find the most perfect incongruity in the arrangement of them; plants of large and vigorous growth overrunning and obscuring those of humbler and more fragile habit. For instance, in a Case containing Ferns it is not unusual to see such gems as *Asplenium septentrionale*, *A. fontanum*, *Cryptogramma crispa*, *Lycopodium alpina*, &c., overrun and destroyed by such comparatively ungainly plants as *Scolopendrium officinarum*, *Aspidium*, *Felix femina*, &c. Whereas, the situation of the Case being favourable, these smaller things would display themselves to much greater advantage if the whole area were appropriated to them by a judicious arrangement of the surface of the mould. And very often, in addition to the large plants above mentioned, *Lycopodium stoloniferum*, *L. denticulatum*, and *L. purpureum*, will be found intertwining themselves with everything in the Case, and by their rapid and exuberant growth speedily filling up the Case, and creating an excess of moisture which is often injurious in its effects upon some of the smaller and more delicate things. The amount of gratification to be derived from this mode of cultivating plants will be commensurate with the degree of success realized, therefore, in the construction of the Cases, regard must be had to the habits of the kinds it is intended to grow. If it is intended to have a collection of the small plants first mentioned above (I confine my remarks to Ferns, for the sake of simplicity, the same observations will apply to other classes of plants), a small Case, ten inches in height, with a flat glass top, would be sufficiently high, the area laid out in *miniature rock-work*, and the plants inserted in it judiciously would produce a most pleasing effect. It would add greatly to the charm of such an arrangement to have suspended in diminutive rustic pots or baskets, from some wires inserted in the top, plants of some of the neater-growing *Lycopodiums*, as they harmonize better with the foliage of the Ferns than Cactuses, Sedums, *Stapelias*, and other similar things very often associated with them. *Lycopodium denticulatum*, *L. stoloniferum*, and *L. purpureum*, produce the most pleasing effect, when suffered to run wild in a glass by themselves. And in order to their full development, and an effective display of their noble fronds, the larger Ferns will require ample room. But in penning the above remarks I have quite gone astray from the object I proposed to myself when I sat down, which was, to remark on the composition of the soil I have found the most useful in the culture of plants in these Cases. These I must reserve for the next Number.

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 248.)

BY ORION.

1845. WE are now very close upon modern times, and as most of the varieties about to be named are still in cultivation, and many, indeed, likely to be popular for some years yet to come, it is presumed that a brief enumeration of the names and the prices will be of sufficient purpose to bring this series of notes to a conclusion.

It was stated in the last article, Mr. Beck first appeared with his productions in the year 1844, in like manner we have now to announce that another very celebrated raiser first made his *début* the season afterwards, and when CHAMPION, TITUS, POMPEY, and SARAH-JANE, are mentioned as among the first of this gentleman's long series of popular seedlings, it will be easily guessed that the renowned Mr. Hoyle, then of Guernsey, but now of Reading, is the fresh "champion in our lists," and right glad are we that he was induced to take up so interesting a pursuit. Mr. Miller, of Ramsgate, was the party selected to "let them out" this year, but various were the parties who afterwards aspired to this honour. The prices of them were, Pompey and *Titus respectively 63s.; Champion, 42s.; and Sarah-Jane only 21s., though it turned out the most popular, and it is the writer's opinion that it was the best model for shape which had then appeared. Mr. Foster's flowers were Nabob, *Phæon, *Dr. Lindley, *Miss Peel, *Duke of Devonshire, Rosetta, each at 42s., and Magician, *Psyche, *Robustum, *Sultana, the Cid, and Shield of Achilles, each at 21s. Mr. Lyne's Confidence, Imogene, King of Saxony, and Sappho, were each priced moderately at 21s., while a variety raised and sent out by Gaines, *Duchess of Leinster, still figured at 63s. Thurtell's Othello, Silverlock's Chance, *Cock's Hector, Medora, and White Surrey, were respectively advertised at 21s. Sultana, and Chandler's Celestial (the latter novel, with a very pure throat), commanded a good sale by only being priced at 10s. 6d. Garth's Magog, his only flower of this year, at 42s., will suffice to complete the list. To pass on to another season, the year 1846 will be found to have been productive of much novelty, and another step in the onward march accomplished by dint of much perseverance.

To commence with the "flower of the season," which undoubtedly was *DRURY'S PEARL, sent out by Catleugh, at three guineas, and considering that this highly-popular flower was the first *pure white*, without the heretofore invariable *plum veins or spots*, it was not dear at the price. One thing may be mentioned to prove the superiority of this flower, that it was exhibited more times than any other flower, during the year 1850, as may be seen on reference to page 316 of last year's volume. Mr. Hoyle's flowers were CHIMBORAZI, three guineas (which undoubtedly was the direct parent of MOUNT ETNA, and other crimson beauties), ALICE, AUGUSTA, DUKE OF ORLEANS, GIPSY MAID (a little gem, but of very bad habit), JOSEPHUS, and LORD MORPETH, all priced at one guinea. Mr. Beck's DESDEMONA was a great acquisition, and being the first flower of that description became

very popular, it was sent out at one guinea, as were also the same raiser's *ARABELLA, *BELLONA, *ISABELLA (a pretty strawberry-coloured flower), *JUNO, MARC ANTONY, *MUSTEE, OTHIELLO, *ROSY CIRCLE, and *SUNSET; ZENOBIA and MARGARETTA were only half-a-guinea. Although so numerous they were generally good, as may be judged by so many gaining a seedling prize. Having mentioned the two *new raisers'* lots, Mr. Foster's ARDEUS and *ORION, each priced at three guineas, are next worthy of notice, and the latter particularly so, from the large and continued popularity it so long maintained, being driven out of the field by *no less* important a flower than Foquett's Magnificent, but matters must not be anticipated. Mr. Foster's other flowers were DUKE OF HAMILTON, one guinea; QUEEN POMARE, three guineas; and SAPPHIRE, two guineas. A good white CAMILLA ALBA, from Gaines's, at one guinea, divided attention with PEARL, but could not approach it for *quality*, the plum-spot was, however, more decided, "that is less veined;" the same grower's MISS HOLFORD, at two guineas, and GRANDIS, one guinea, must be named, as also Mr. Garth's only flower of the year, COMUS, at one guinea. Mr. Lyne kept up his reputation with three flowers, HESPERUS and MARMION, each a guinea and a-half, and MERRY MONARCH, one guinea; the two first long continued popular, MARMION perhaps from its amazing freedom of bloom. To this list one only need be added, Mr. Cock's MILO, advertised at two guineas. To comment on the progress of the year, it will be seen that, besides form and colouring, other properties are brought forward, and habit, freedom of bloom, with constancy, begin to exert a great influence on the improvements now being rapidly advanced. To illustrate these remarks, ORION can be instanced as a specimen of *good habit*, MARMION for *freedom* in flowering, and MUSTEE, or ROSY CIRCLE, may be cited as good examples of constancy.

To the year 1847 attention must now be turned, and it will be found that a great stride was again made in an onward direction. Mr. Lynes's FORGET-ME-NOT must be first on our list, and it may be said of it, that it is second to none, even at the present time, to take it for every useful property; it was sent out, as were all this celebrated raiser's productions, by Mr. Rendle, of Plymouth, and only priced at thirty shillings. The same raiser's FIREFLY also at thirty shillings (small but pretty), and THE PERI at one guinea, were also sent out this year. Mr. Foster's flowers were ARIEL, three guineas; ARMADA, *PARAGON, and *PAINTED LADY, each at two guineas; also PERICLES, at thirty shillings. Painted Lady was, perhaps, one of the first flowers possessing a very pure white centre, making this style of flower so attractive. Mr. Beck had a famous lot this year, among them *AURORA, at two guineas, stands conspicuous; *BACCHUS, *COMPETITOR, *HEBE'S LIP, and SIRIUS, at one guinea and a-half; and *RESPLENDENT, one guinea. Two of what are now termed TRADE-FLOWERS were also sent out by Mr. Beck, BLANCHE (a good white, but very apt to curl), and GIGANTIC (indeed a noble large flower), each at fifteen shillings. Mr. Hoyle's *MOUNT ETNA must be mentioned as one among the most notorious of this gentleman's raising, it was priced at the low sum

of one guinea; his *HEIDO and *SUNSET, a guinea and a-half, and *ISABELLA, one guinea. Stewart's CLARA, at two guineas, was a nice high-coloured flower, but did not get into the large cultivation its merits deserved, perhaps from the raiser not being sufficiently known. MARY QUEEN OF SCOTS and PRINCESS OLGA were each raised and sent out by Mr. Gaines, at two guineas. Mr. Garth's flowers were COUP DE SOLEIL, EMPEROR, HERCULES, MARS, SULTAN, and NEGRESS, each two guineas; the latter has proved itself one of the most popular exhibition flowers, being stout, of good habit, and a free bloomer. EUREKA and QUEEN OF TRUMPS, though priced at three guineas, were not of so much importance as Mr. Garth's other flowers. Mr. Catleugh had a pair this season, AGRIPPINA, at two guineas, and RACHAEL-SUPERB, one guinea, the latter being a silvery-white with nicely-blotched plum-violet upper petals.

BRIEF REMARKS.

STRIKING CUTTINGS OF STOVE AND GREENHOUSE PLANTS IN BURNT CLAY.—Three years ago I was advised to try this kind of material; and having done so with the greatest success, I can most confidently recommend it to the readers of your Magazine. My collection comprises nearly all the best of stove and greenhouse plants. Burnt clay possesses the property of absorbing ammonia from the atmosphere, which affords a constant and regular stimulus to the cuttings, and enables them very quickly to send out the radical fibres. I strike a great number of the cuttings from single eyes; that is, cut it through horizontally close under the bud, leave the leaf entire, and cut off the shoot about an inch above the bud. I plunge the pots one-third deep in a slight tan-bed. I do not lose five in a hundred cuttings so treated.—*A Country Curate.*

ON THE WIRE-WORM.—Having seen many inquiries respecting the manner in which the wire-worm might be destroyed, induces me to send you my method of treatment for their destruction. For nearly two or three seasons I had nearly all my Dahlia plants destroyed by those destructive pests, the wire-worm. After having tried various experiments, that of burnt earth succeeded entirely to my satisfaction, not having a plant the following season injured. Thinking this might prove beneficial to numbers of your readers, if you think it worth insertion it is at your service. The burnt earth may be made by burning the refuse of the garden in dry weather.

BOTANIC GARDEN, VIENNA.—We are informed that a fine specimen of Paulownia imperial is now in flower here. The tree is about thirty feet high, and has at least four hundred flower spikes, upon each of which can be counted from fifteen to forty flowers. It is truly a magnificent object. If we could succeed to get a large tree to flower in England, this fine plant would redeem its character. The flowers quite perfume the surrounding neighbourhood. At Vienna, during the winter of 1849-50, the specimen which is now in flower endured a cold of 24° Reaumur, or 20° below zero of Fahrenheit. Last winter

was very mild, and there was no spring frost there, which was of course very favourable to the development of the flowers.

SEEDLING FLOWERS.—Observing the award of a Certificate the other day by the National Floricultural Society to Mr. Paul for “Seedling Roses,” and having heard Mr. Paul state openly that he bought these Roses in France last summer, I wish to ask the Committee if the above award is to form a precedent, and if it will be allowed as such in a case as follows:—A makes a journey into Devonshire, and finds a seedling Rose in the garden of B, which he, A, purchases, propagates, and exhibits in the neighbourhood of London. Now, according to our present floricultural code, with the above as a precedent, A can take a prize for it as a seedling by affixing his name to it, as in this instance Mr. Paul has done. I do not by any means wish to impugn Mr. Paul’s right to do so; I only wish to know the law upon the subject. I remember that when Lucombe and Pince bought the *Rosa Devoniensis* of the raiser, they named it, but did not call it “*Devoniensis* (Pince’s).” Such an addition would have implied that they raised it from seed, instead of what is called “buying the stock.” Taking this view of the question, Mr. Paul should have exhibited his Roses simply as Queen Victoria, Robert Burns, and Prince Albert, without the addition of “Paul’s.” A few words on this point from the officials of the National Floricultural Society in your columns will be of great interest to many growers, as many florists buy seedlings of amateurs. Mr. Foster, I think, sells his *Pelargoniums*, but has his name retained as the raiser.—*Inquirer. (Gardeners’ Chronicle.)*

ALLAMANDAS.—At the last exhibition at Chiswick I observed some beautiful plants of *Allamanda*, which, in my opinion, would have looked much more handsome if they had been left to take their natural shape, instead of being twisted and bundled together round sticks or wire trellises, as they were on that occasion, and which I believe is the common way of growing them. Surely the *Allamanda* is neither a creeper nor a climber, and why should it be made to exhibit the character of these? I have at this time plants of *A. cathartica*, from three to six feet high, full of flower, and one stick in the centre is all I use for the tallest one. My plants were started into growth in the beginning of March, on a gentle bottom heat, after being cut back to the last joint, and potted in a mixture of loam, peat, and sand, using a double quantity of loam to that of peat. All the eyes were allowed to burst; and when the young shoots were about six inches long, they were thinned out according to the strength of the plant, always retaining the strongest; the plants were kept in bottom heat as near the glass as possible, and allowed but little pot-room until they showed the first flowers, when they were removed into larger pots placed in a cooler house, without bottom heat, and exposed to as much light and air as possible. I know of no stove plants that repay attention better than *Allamandas*, for if well attended to with water, &c., they will continue to produce abundance of flowers from the beginning of June to the end of September.—*W. S. (Gardeners’ Chronicle.)*

STRIPED PANSIES.—We have recently had a dozen varieties sent us. The flowers are not only beautiful in stripes, but of very good form,

some of them quite equal to our best of the usual class. No doubt but there will be annual advances to perfection in form in this new and very interesting section. They will prove a valuable addition to this lovely family of flowers, similar to what has been realized by the addition of the *fancy class* of Dahlias to those we previously possessed.

TRANSPLANTING EVERGREENS.—My experience in this branch of gardening for the last twelve months has caused me to alter my opinion of the best time in the year for performing the work. Whether I am wrong or not, there can be no harm in telling my tale, in order that gardeners may test the subject, or, at any rate, to open the question once more, and to try experiments on it, and record them. Among reading gardeners the question about the best time for transplanting *large evergreens* has been settled for some years, August and September being the two best months. Last year I pushed the whole month of July into the scales, as being quite as good, if not better, than September for this work. Putting off the work to November, as was the fashion not long ago, is certainly not the best way to succeed. The large box bushes I planted last June, under a fierce hot sun and a long drought, have done as well as any one could wish; not a sprig of them has died, and they are now growing as well as can be. In July and August following we removed very few things; but from last September to the end of this last May we had to move some almost every week, as the alterations going on in the garden suggested; a "second thought" caused the removal, this spring, of some large specimens that were only transplanted last autumn, and, as luck would have it, these plants happened to be of different families, there being hardly two of a kind which had to be thus dealt with the second time; it was from these that I took up my new notion of the best time for transplanting evergreens, and the history of one specimen will show my reason and meaning.

About the end of last October we removed an evergreen Cypress (*Cypressus sempervirens*). It was a fine plant, above twenty years old, and more than that number of feet in perpendicular height; but having had two leaders near the top, the opportunity was taken advantage of to reduce it to one leader, and the shortest being the best formed one, the longest was cut off, which reduced the height of the plant two or three feet. This Cypress, like all the rest of them in the garden, never ceased to grow the whole winter; and no one could see now, from any indication, that it had been removed these ten years: but it was transplanted twice since last autumn, first in October and again in April, and both times with horse power; but all this time it had not formed one single new root, nor made the least effort to heal over the ends of any damaged roots. I confess that, under the circumstances, I could hardly believe all this if I had not seen it,—a fast-growing evergreen removed in the autumn, and kept on growing through the mildest winter any one can remember, and still, up to the very end of April, not having made the least effort to increase or repair its roots. This led me to examine the roots of several kinds of evergreens all over the garden—those that were not transplanted as well as those that were—and from the whole I have come to this conclusion, that *every month*

in the whole year, if the winter is very mild, is the *best month* for SOME PARTICULAR PLANT to be removed, and that I, and the whole of us, were quite wrong in supposing the autumn, or any particular time, to be the best time for *all* evergreens to be removed. We might just as well have broached a new doctrine about potting every plant we grow, bulbs, orchids, and all, in one month, as to assert that one particular month in the autumn, or spring, or summer is the best time for all evergreens to be moved; but let us have more observations than mine recorded on the subject.—*D. Beaton. (Cottage Gardener.)*

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—*On the Theory of the Formation of Wood and the Descent of the Sap in Plants, by Dr. Lankester.*—The author drew attention to the theory of the formation of wood in plants, and objected to the view that the leaves form the wood, on the ground that the ligneous, like all other tissues, were the result of the growth of cells which were not formed in the leaves, but in all parts of the plant. Wood was formed in all parts of the plant where elongated cells were generated, quite independently of leaves, or the formation of leaves; as in the lower part of the cut wounds of the stems of plants, in the portions of trunks left when trees were cut down, in the abortive branches formed in the bark of such trees as the Elm and the Cedar, and in other parts of the vegetable structure. He also objected to the theory of the formation of the ligneous or any other secretion, which might be subsequently appropriated by the cells, in the leaves alone. He maintained that all the facts brought forward to support the theory of the descent of the sap might be explained on the known fact of the ready permeability of the tissues of the plant. He related the details of experiments performed on the species of Spurge, in which the fluid was found to exude from the stem and branches in these plants just in proportion of the quantity of fluid contained in the plant above or below the section made, and not in obedience to any law of the descent of the sap. The cells of plants were nourished in two ways: first, by the sap containing carbonic acid, ammonia, and other substances; and, secondly, by materials, as sugar, gum, &c., formed in the cells. These latter were not formed solely in the leaves, but in all cells. He regarded the leaves as organs by which the water of the sap was got rid of, and by this means a further supply of sap from the earth and atmosphere was insured. The way in which the demand for sap was insured might be imitated by a common sponge, on the upper surface of which evaporation went on, and the lower surface, being in contact with water, would always supply this fluid, as a demand for it was created by the evaporation above. This phenomenon had been attributed to a specific vitality; but it was unphilosophical to speak of vitality as a force, when it could not be demonstrated to exist, and especially when physical forces were capable of explaining the phenomenon.

Professor Henslow said that he agreed with the views of Dr. Lankester with regard to the theory of the formation of wood proposed by Dupetit Thouars. He thought it was evident that whatever was the function of the leaf, it did not send down the woody fibres which formed the trunk and branches of exogenous trees. The tracing the

woody fibres up to the leaf did not prove their origin there. With regard to the descent of the sap, he did not agree with the author of the paper, who, he thought, took too physical a view of the function of the plant. The leaves were not mere organs of evaporation. They performed the function of exhalation, which was independent of heat, and depended on the vitality of the plant. He believed that the leaves did effect a certain change in the juices brought to them, which changed matter was again taken back into the system of the plant, and there being taken up by the cells, produced the results which were found in the deposit of lignine and the other secreted matters of plants.—Mr. Huxley quoted the instance of the rapid growth and great quantity of wood formed by the various kinds of Lianes of tropical forests as instances in favour of the formation of wood independently of the leaves. These plants had all of them a remarkably small number of leaves.—Professor Asa Gray believed that the theory of the formation of wood, as held by Du Hamel, Dupetit Thouars, and others, was no longer tenable. The formation of vessels from cells could be easily observed, and in exogenous plants there was no vacant space between the wood and the bark for the woody fibres to be sent down through. Even in the spring of the year, when the sap was passing most rapidly between the wood and the bark, the organic connexion was complete. Whether matter was elaborated in the leaves and sent down into the plant he was not prepared to say, but further experiments were desirable.—Dr. Fowler quoted some experiments which he thought proved that the materials of the growth of the plant were not prepared in the leaves.—Dr. Lankester replied, and stated that at present it appeared to him that the statement of the preparation of gum or any other secretion in the plant which was found subsequently in any other part of the plant, was an assumption that required proof. The practice of looking for analogies between the vegetable and animal kingdoms has led to the adoption of theories in vegetable physiology which were quite inconsistent with the simplicity of the structure of plants. In order to advance the science of vegetable physiology, we must fix our attention on the functions of the cell, and discharge all theories which were not compatible with our knowledge of its functions.

HORTICULTURAL SOCIETY'S ROOMS, REGENT STREET, OCTOBER 7.—Messrs. Weeks sent a bloom of the Royal Water Lily (*Victoria regia*), a bud of *Nymphaea cærulea*, and a flower and a leaf of *N. dentata*, from the open heated pond in their nursery, in which such plants have been found to grow and flower successfully. The leaf of *N. dentata* was certainly as large and fine as it could well be in the best-managed stove aquarium. It was stated that the *Victoria* had produced fifty blooms in the course of the past summer, and that the plant was still unprotected. A Banksian Medal was awarded.—I. Anderson, Esq., of Maryfield, near Edinburgh, sent a cut specimen of a seedling *Veronica*, which, although pretty, was inferior in beauty to *V. Andersonii*, a charming hybrid, raised by the same gentleman. Mr. Frost, gardener to E. L. Betts, Esq., of Preston Hall, Aylesford, furnished a seedling *Begonia*, obtained by crossing *B. cinnabarina* with *B. nitida*. The result is a freer-flowering plant than *B. cinnabarina*, with even higher-coloured flowers than those of that fine kind, while the foliage

is very nearly the same as that of *Nitida*. A Certificate of Merit was awarded it.—Mr. Kennedy, of Covent Garden, sent a narrow-leaved variety of *Scolopendrium officinale* from Yorkshire.—Mr. Stark, of Edinburgh, sent a new purple and lilac-flowered *Linaria*, called *Arabida*, which looked as if it would make a good rock plant. It was raised from Portuguese seeds, collected by Dr. Welwitzsch, in 1849.—Messrs. Jackson, of Kingston, sent half a-dozen nicely-blossomed plants of *Odontoglossum grande*, which had been flowered in a cool house. It was mentioned that this is one of the hardiest of exotic orchids, and that it has been even bloomed out of doors, during summer, under the shade of a Laurel bush.—Mr. Macintosh, Nurseryman, Maida Vale, Edgeware Road, received a Certificate of Merit for a very large and fine shrubby specimen of common *Mignonette*. This was a single plant, pricked out in a small state into a pot last autumn, and shifted on till it had attained its present size. It was remarked that *Mignonette* is not an annual, as many imagine it to be; but that it will become a woody shrub, and last for years, provided it is well managed, and kept free from frost and damp. The garden also furnished a large yellow Gourd, weighing 136½ lbs.; specimens of a yellow-striped Mushroom-shaped Squash, and a French Sulphurator. The great merit of the latter is its simplicity and cheapness. It consists of a tin-box for holding the sulphur, placed on the upper side of the pipe of a pair of common bellows. The sulphur gets into the pipe through small holes made for the purpose in the bottom of the box, and in order that no stoppage may take place, a small hammer-head attached at the end of a slight steel spring is fixed on the underside of the bellows, a gentle tap from which, now and then, keeps up a continuous fall of sulphur into the pipe. These appliances, which may be attached to a pair of bellows for little more than sixpence, answer every purpose for which they are intended, equally as well as a more expensive machine.

HEATING GREENHOUSES, &c.—Mr. Michael M'Sherry, of 3, James-street, Limerick, Ireland, exhibited in the Crystal Palace, Hyde Park, a MODEL APPARATUS, stated to be very effective. The following description is given of it:—"To be made of boiler plate-iron, with a metal front, for heating by circulation of air. The flame and smoke from the furnace pass under the stove to the extreme end, and then rise at the two sides, return to the front, and get over the top to the chimney, where they do not escape until they pass all round the stove and heat every part of it. The air of the house to be heated is drawn in brick flues under the floor to the under compartments of the stove, passes in them to the extreme ends, then rises to the upper divisions, and finally flows back into the house over a water-tank. In addition to this, there is a hot-air box on each side of the fire, through which external air is circulated, as well as through hollow fire-bars, discharging the great body of heat (which they usually absorb) into the house, and rendering it available for bottom heat. The stove is to be set in brickwork, and as the outside of it is as hot as any part, much additional heat will be obtained by leaving a space of two inches between the stove and brickwork, they bringing external air to act on the two sides, and pass into the house."

CANTUA DEPENDENS.—A correspondent writes that in July he procured two plants, one was placed in a stove and the other in a greenhouse. The former grew the fastest for a-month, and then the foliage turned yellow, this was caused by the attack of the red spider, the plant was dusted over and under with sulphur, and the enemy was destroyed, still the plant has not yet recovered the disaster. The plant placed in a cool greenhouse has grown well, and has continued in excellent health. It is quite evident the plant will not thrive in the stove, but must be kept in a cool, dry greenhouse, or pit-frame, &c., if grown in pots, and in summer others will flourish in the open ground.

PREVENTION OF WEEDS ON WALKS, &c.—An asphalt composed of sand, lime rubbish, cinder ashes, and gas-tar, has been found to answer satisfactory, no weeds will grow upon it. It appears that the remedy is in the gas-tar, it being a foe to vegetable life. These materials do not appear at the surface very agreeable, but if half an inch of gas-tar be spread over the surface of the substratum of a walk and upon it be laid a coat of gravel two inches thick, the unsightliness of the former is avoided, and a neat gravel surface, freed from weeds, will be secured. Dr. Lindley states, in the *Gardeners' Chronicle*, that he had had some walks coated with gas-tar, thick enough to cover the moss, but it was found that the gas-tar became sticky as soon as it was warmed by sunshine, or even in dry weather. The application, however, stopped the growth of weeds effectually, and the piece of walk so treated nine months back is now as bare as when first done. Subsequently an extensive path in the shrubbery had been painted over with *hot* gas-tar, and when a few yards was done sand was sifted upon the walk and a roller drawn over it. Thus treated, the walk was firm, dry, and hard, and neither weeds or moss have since grown upon it, nor is there any trace of the walk having been tarred, the surface has the appearance of any other gravel walk.

MISCELLANEOUS SECTION.

REVIEW.—*Observations on the Culture of Roses in Pots.* By William Paul. Second edition, pp. 43. London, Piper.

IT contains practical remarks on the subjects of potting and preparing the plants, pruning, training, forcing, and retarding them for winter bloom; and has lists of varieties adapted for all purposes and seasons; also advice on budding, grafting, and choice of stocks, &c. That it is very useful the following extracts will confirm:—

“The soil in which Roses succeed well, and that generally used here, is, two parts of stiff turfy loam, broken up, but not sifted, two parts manure (road-gatherings laid by for a season, or the remains of a hot-bed, not too far decomposed), and one part burnt earth. This compost should be thrown up in a heap in autumn, and turned two or three times during winter, and a little newly-slaked lime scattered throughout to destroy worms and grubs. This is the soil used for the mass; but for the delicate varieties (Chinese, &c.) it may be improved by the addition of one part leaf-mould, or well-pulverised manure.”

“Since the first edition of this little work was penned, Yellow Roses have become a special branch of culture. Separate prizes have been offered for them by the London Horticultural and Royal Botanic Societies. But what are Yellow Roses? This question provoked some discussion in the pages of the ‘Gardeners’ Journal’ last year, through the withholding of a prize by the Royal Botanic Society. To prevent any misconception at future exhibitions, that Society has named the varieties considered eligible for competition. Let us reproduce them here:—

Yellow Banksiæ.	Narcisse (Tea-scented).
Single Yellow (Austrian).	Smitheii or Smith’s Yellow (ditto).
Williams’s Double Yellow (ditto).	Pauline Plantier (ditto).
Harrisonii (ditto).	Queen Victoria or Princesse Adelaide (ditto).
Persian Yellow (ditto).	Vicomtesse de Cazes (ditto).
Old Double Yellow (Sulphurea).	Jaane, or Yellow China (ditto).
Cloth of Gold (Noisette).	Sulphurea superba (ditto).
Solfaterre (ditto).	
Le Pactole (ditto).	

“We proceed to analyse this group. The first on the list—the Yellow Banksiæ—is a pretty enough Rose, with small flowers produced in clusters. It may be grown well in a soil composed of equal parts of loam, peat, and leaf-mould. It requires but little pruning; the mere tips of the shoots may be taken off. Spiral training is recommended as the most suitable. The succeeding five varieties are nearly allied in nature, and may be grown in a soil similar to the last. Manure is here positively objectionable; but the addition of sand, unless the peat or loam be sandy, will prove advantageous. Very little pruning is necessary: some of the shoots may be cut out entirely; the others have their mere ends taken off. If grown on their own roots, they may be trained as globular or columnar bushes; if grown on stems, the branches may be drawn downwards in the form of a Weeping Rose. The two next in order—Cloth of Gold and Solfaterre—are of vigorous growth, producing large flowers of great beauty. Both are shy bloomers, especially the former. The same soil as recommended for Pot-Roses in general may be used for these varieties. Little pruning is necessary, and spiral training is recommended. Seven out of the remaining eight varieties belong to the Tea-scented, and the whole require a rich soil and close pruning. The most advantageous systems of training are the round bush or the pyramid. Were this group to be viewed critically, it might be said they are not all ‘purely yellow.’ It might also be said there are kinds excluded which have as just a right to the appellation of ‘yellow’ as they. But when it is considered that the declension from yellow to white and buff is so gradual that it is scarcely possible to fix the line of demarcation, and that a list of sixteen varieties is given from which to select six, these points of criticism are hardly tenable. If none others are allowed to be exhibited, or none whose flowers are less yellow when brought to the exhibition tables than those of the sixteen above enumerated, the practical utility of the arrangement will soon become apparent.”

“*On forcing the Rose.*—Roses required for forcing will succeed tolerably well if potted early in the preceding autumn. It is, however,

obvious that, by being potted a twelvemonth previously, they become thoroughly established, and are better enabled to support an accelerated growth and premature development of bloom."

"*Forcing-house.*—A span-roofed house, with a longer roof toward the south, is, perhaps, the best style of building. Heating by hot water, in its various modes of application, is generally acknowledged to be preferable to the old flue system, and in no instance is it more so than for forcing Roses; nevertheless they will flower well in houses heated with flues. Arnott's stove, which is used by some, is found to answer exceedingly well.

"Every precaution should be taken against mildew. If the weather be cloudy and wet, a brisk heat should be maintained, that we may not have a cold damp atmosphere. The application of sulphur is a well-known remedy, dusted on the leaves, while wet, from a dredging-box; and by admitting abundance of air, and at the same time applying fire-heat, should the house be damp, to establish a free circulation among the plants, its progress will certainly be arrested."

"*Ripening the Wood.*—It is important, with regard to Roses intended for forcing, that the wood be *well ripened* early in autumn; and to effect this end they should be placed in a sunny and airy situation during summer, and should not have too free a supply of water when *completing* their growth. So soon as they have done growing, the shoots may be thinned out, the shortening-in of the shoots being deferred till the plants are conveyed into the forcing-house."

"*Housing the Plants.*—It is advisable to keep the plants as close to the glass as possible; and if a *gentle bottom-heat* can be secured, so much the better. When the buds begin to swell, the heat may be steadily increased till we reach 60° to 80° by day, and the night temperature should never be lower than 40°; a difference of 15° or 20° between the day and night temperature proving beneficial."

"*Watering.*—During their growth the plants should be freely watered; occasionally with guano-water, about the temperature of the house; or, if worms work in the pots, lime-water is an efficient remedy."

"*Syringing.*—In bright weather the plants should be freely syringed morning and evening; in dull weather very lightly, and once only; soot-water may be used here with good effect."

To obtain Roses late in the year Mr. Paul selects the autumnal class, pinches off all early-shown buds, but after the first of September allows all that appear to remain, and by which process he has gathered many beautiful Roses on Christmas-day. The varieties he recommends "are such kinds as produce a great quantity of flowers, and open freely. *Bourbons*: Armosa, Queen, and Phœnix. *Noisettes*: Fellenberg and Euphrosyne. *Chinese*: White, Fabvier, and Burdon," &c.

The work has our hearty commendation, and all readers will find it useful.

Balfour's Phyto-Theology. Published by Johnson and Hunter.
8vo., 240 pages.

THIS is an admirable little neat publication, containing much that is highly interesting and useful, and those of our readers who have to examine and study the works of God, especially as displayed in plants and flowers, may have a rich treat in the perusal of the book. We

strongly recommend it to all our readers. The following extract on the "human clock" will convey somewhat of its interesting style:—

"The flowering of plants takes place at different periods of the year, and thus a calendar of the seasons may be constructed. By observing the exact time when plants in the same garden flower in different years, an indication will be given of the nature of the season. The Mezereon and Snowdrop, Hepatica, and Winter Aconite, put forth their flowers in February in this country, the Primrose and Crocus in March, the Cowslip and Daffodil in April, the great mass of plants in May and June, many in July, August, and September, the Meadow Saffron and Strawberry tree in October and November, and the Christmas Rose in December. Besides annual periods, some flowers exhibit diurnal periods of expansion and closing. On this principle Linnæus constructed what he called a floral clock, in which each hour was marked by the opening of some flower. . . . Richter, in his remarks on Linnæus' floral clock, contrasts it with the periodical occupation of man at different hours of the day. 'I believe,' he says, 'the flower-clock of Linnæus, in Upsal (*Horologium Floræ*), whose wheels are the sun and earth, and whose index-figures are flowers, of which one always awakens and opens later than another, was what secretly suggested my conception of the human clock. I formerly occupied two chambers in Schreeraw, in the middle of the market-place; from the front room I overlooked the whole market-place and the royal buildings, and from the back one the botanical garden. Whoever now dwells in these two rooms possesses an excellent harmony, arranged to his hand, between the flower-clock in the garden, and the human-clock in the market-place. At three o'clock in the morning the Yellow Meadow Goatsbeard opens; and brides awake, and the stable-boy begins to rattle and feed the horses beneath the lodger. At four o'clock the little Hawkweed awakes, choristers going to the cathedral, who are clocks with chimes, and the bakers. At five, kitchen-maids, dairy-maids, and Butter-cups awake. At six, the Sow-thistle and cocks. At seven o'clock many of the ladies'-maids are awake in the palace, the Chicory in my botanical garden, and some tradesmen. At eight o'clock all the colleges awake, and the little yellow Mouse-ear. At nine o'clock the female nobility already begin to stir—the Marigold, and even many young ladies who have come from the country on a visit, begin to look out of their windows. Between ten and eleven o'clock the court ladies and the whole staff of lords of the bedchamber, the green Colewort and the Alpine Dandelion, and the reader of the princess, rouse themselves out of their morning's sleep; and the whole palace, considering that the morning sun gleams so brightly to-day from the lofty sky through the coloured silk curtains, curtails a little of its slumber. At twelve o'clock the prince, at one his wife and Carnation, have their eyes open in their flower-vase. What awakes late in the afternoon at four o'clock is only the red Hawkweed and the night watchmen as cuckoo-clock, and these two only tell the time as evening clocks and moon-clocks. From the hot eyes of the unfortunate man who, like the Jalap plant (*Mirabilis Jalapa*), first opens them at five o'clock, we will turn our own in pity aside. It is a rich man who has taken the jalap, and who only exchanges the fever-fancies of being griped with hot pincers for waking gripes. I could never know when

it was two o'clock, because at that time, together with a thousand other stout gentlemen, and with the yellow Mouse-ear, I always fell asleep; but at three o'clock in the afternoon, and at three in the morning, I awoke as regularly as though I was a repeater. Thus we mortals may be a flower-clock for higher beings, when our flower-leaves close upon our last bed; or sand-clocks, when the sand of our life is so run down that it is renewed in the other world; or picture-clocks, because, when our death-bell here below strikes and rings, our image steps forth from its case into the next world. On each event of the kind, when seventy years of human life have passed away, they may perhaps say, 'What! another hour already gone! how the time flies!'

"The closing of flowers also follows a periodical law. Most flowers close during darkness. Some close even in day-light. Thus the Salsafy shuts up its head of flowers about mid-day, and the Chicory about four in the afternoon. Many flowers are affected by the nature of the day as regards moisture, dryness, cloudiness, or clearness. In cloudy and rainy weather, the flowers of the Scarlet Pimpernel, called Poor-man's Weather-glass, remain closed. So also do the heads of flowers of the Daisy, Dandelion, and other composite plants. By this means the essential organs of the flower are protected from injury. The direction of the flowers of some plants seems to be influenced by the sun's rays; and the name Girasole, or Sunflower, was given, from an impression that the heads of flowers inclined towards the part of the heavens where the sun was shining. This does not, however, appear to be the case with the Sunflower, as grown in this country.

"The diurnal periods in flowering are alluded to by the poet in the following lines:—

- “ ‘ In every copse and sheltered dell,
Unveiled to the observant eye,
Are faithful monitors who tell,
How pass the hours and seasons by.
- “ ‘ The green-robed children of the spring
Will mark the periods as they pass,
Mingle with leaves Time's feathered wing,
And bind with flowers his silent glass.
- “ ‘ See Hieracium's various tribes
Of plummy fruit and radiant flowers,
The course of time their blooms describe,
And wake and sleep appointed hours.
- “ ‘ Broad o'er its imbricated cup
The Goatsbeard spreads its purple rays,
But shuts its cautious florets up,
Retiring from the noontide blaze.
- “ ‘ On upland shores the shepherd marks
The hour when, as the dial true,
Cichorium to the lowering lark
Lifts her soft eyes serenely blue.
- “ ‘ Thus, in each flower and simple bell
That in our path betrod den lie,
Are sweet remembrancers, who tell
How fast the winged moments fly! ’ ”

FLORAL
OPERATIONS FOR THE MONTH
IN THE FLOWER GARDEN.

PLANTING and transplanting trees and shrubs, forming and altering walks, laying down turf, and all kinds of alterations and improvements, where such is desirable, will now require attention. Proceed with all despatch to plant shrubs, herbaceous plants, &c., to enable each to become established before spring. Amongst other out-door occupations, are pruning a variety of things, supporting and protecting them at the same time, as may be deemed necessary. In the protection of tender things, the principles demanding attention are few and simple. A comparative degree of dryness is the first great essential, whether in the atmosphere or the soil. In a frame or pit, this amount of dryness cannot be guaranteed without motion in the air; and this, of course, in the absence of fire-heat, must be accomplished by a very free ventilation at every fitting opportunity, remembering that a small amount of frost is, in general, less prejudicial than an *accumulation of damp*, which will rapidly tend to a kind of mortification in the system of the plant. The same atmospheric conditions are to be obtained out of doors, as far as attention can secure them; thus, half-hardy plants against trellises or detached, if covered with a mat and stuffed closely with hay inside, will be in danger of perishing of what we may for the present term suffocation; the same specimen will always run through a long winter better with the mat alone, more especially if the collar is well protected by some dry and porous material, and, above all, the root well top-dressed with sawdust or ashes, or perhaps the two blended. As to comparative dryness of the soil, that must be accomplished principally by the most perfect drainage; this is, indeed, the great desideratum with plants of tender habits; indeed, without it, other appliances are seldom satisfactory. Mounds of new sawdust, or dry leaves, raised around the stem, with a considerable body over the soil as far as the root ranges, will be found of immense benefit, as retaining the ground-heat, which we believe ascends in a progressive way up the stem, to alleviate the effects of very severe weather. Standard and dwarf Roses of tender character will soon need protection. Finish directly the planting of all bulbs and Ranunculus, &c., which are intended to be put in before winter; a little sand round each will assist in preserving them from wet. Also plant out in a sheltered situation Brompton or Queen Stocks, so they may be protected in winter, and reserved for planting out in spring. Tubers of *Salvia patens*, &c., should be kept dry. Plants of spring flowers, as Hepaticas, Primroses, Polyanthus, Auriculas, Wallflowers, bulbs, &c., should now be planted near the dwelling-house.

FLORISTS' FLOWERS.—*Auriculas* and *Polyanthuses* still require well looking after. A free circulation of air amongst the pots be

given by raising the frame a few inches from the ground. *Tulips* should be planted as the first opportunities offer. The readiest and most regular way is to plant them on the surface of the bed unfilled to within four inches of the destined surface. Seven strings are then stretched lengthways at equal distances, and secured by nails at each end of the bed; when the bulbs are planted a short line crosses these, and a bulb is placed at each section; the small line is then removed the requisite distance, and another row put in. When the bed is planted, the strings are removed, and four inches of soil placed over the roots very carefully, so that none are displaced. *Hyacinths* should, if not already done, be potted or glassed immediately. For blooming in glasses, use rain or river-water, adding to each pint a tea-spoonful of Cole's chemical preparation in powder, which will be found greatly to increase their luxuriance; fill up the glasses with this liquid until it will just touch the bottom of the bulb; place them in total darkness, and change the solution about once a fortnight; in doing this, hold the bulb in its place, and pour out the contents, filling up again as before. In a few weeks, the roots having advanced considerably, they may be removed to a window or other light situation. *Pansies'* straggling shoots may now be cut closely, leaving a joint above the ground, and hoops should be placed over the choicest beds, that protection may be given in the event of sudden frost. *Carnations* will require all the air and exposure possible in damp weather, avoiding continuous wet; when plants appear mildewed, sprinkle a little sulphur over and under. *Pinks*—occasionally stir between the rows of plants. *Dahlias* should be taken up, advantage being taken of fine days; secure the labels firmly. *Chrysanthemums* should be placed where they can be freely ventilated, as they ought not to be kept close or warm, or they would soon become drawn and be attacked by insects.

IN THE GREENHOUSE, COLD FRAME, &c.

The proverbial dulness and dampness of the external atmosphere generally prevailing during this month is sufficient to induce more than the ordinary amount of care and attention. Plants of a succulent nature are liable to suffer as much from damp as from frost. Ventilation on all favourable opportunities is therefore highly necessary, closing the sashes early in the afternoon when a clear sky indicates frost; this precaution will often prevent the necessity of making fires in these houses. Give water sparingly, especially to plants which are impatient of wet, such as *Calceolarias*. *Pelargoniums*, and what are called *Scarlet Geraniums*, such as have been in beds and newly potted, should be kept nearly dry till they strike root afresh. For want of this care vast numbers are destroyed.

IN THE FORCING PIT OR STOVE.

All hardy and half-hardy plants brought in for forcing should have a temperature at first of from 50° to 60°, to be increased up to 75° when more advanced; but as many plants will not bear such heat, and others will not do much good without a high temperature, there should be two distinct pits, or divisions at least, for this purpose. The double Roman *Narcissus* is the first of the forced bulbs, and where they have been potted early in August they will now stand 60° of heat, and will

be in flower by the end of this month. Cyclamens that have made good roots will stand forcing for a short time, and will soon throw up their blooms; but, like bulbs of all sorts, they are injured by forcing *before their roots* are made.

Introduce Roses, Lilacs, Violets, Lilies of the Valley, and other plants, to bring them early into bloom. Chinese Primroses, sown last spring, should be encouraged, that they may blossom about Christmas. These are extremely subject to suffer from damp; they ought, consequently, to occupy a dry and airy situation during winter.

HOLLYHOCKS.

THE florists in Scotland have recently paid considerable attention to the improvement of these noble flowers, and have raised some fine varieties. The following twelve are selected by a celebrated grower (Mr. Downie) as the best:—Susanna, shaded white; General Bem, vivid scarlet; Napoleon, shaded lilac; Captain Peat, light purplish-rose; William, purplish-maroon; Spectabilis, fine rosy-peach; Illuminator, deep crimson; Professor Syme, deep rosy-purple; Lord Willoughby d'Eresby; Sir David Wedderburn, dark chocolate; Nova Scotia, dark maroon; Mesmeriser, nearly black. These varieties may be obtained of the nurserymen and florists in Scotland, and are deserving a place in every collection.

CARNATIONS AND PICOTEES.

IT may assist purchasers of these charming flowers in giving a list of some of the *most superb* varieties in each class, as taken on inspecting the most celebrated collections during the past summer. That they are excellent may be fully relied upon.

Scarlet Bizarres: Admiral Curzon, Splendid, Lamartine, Emperor, Howard, Bolinbroke, Bardolph.

Crimson Bizarres: Duncan, Owen Glendower, Queen Victoria, Lord Milton, Prince Albert, Jenny Lind.

Pink Bizarres: Falconbridge, South London, Princess, Kirke White, Sarah Payne.

Purple Flakes: Premier, Squire Trow, Poins, Perfection, Mayor of Oldham, Squire Meynell.

Scarlet Flakes: Cradley Pet, Splendour, Justice Shallow, Simpson's Victoria, Firebrand.

Rose Flakes: Ariel, Lorenzo, Flora's Garland, Princess Royal, Antonio, Romeo, Madame Sontag.

PICOTEES.—*Heavy Red*: Mrs. Norman, Prince of Wales, Hogarth, Julia Romano, Mary, Elizabeth.

Light Red: Alfred, Duke of Rutland (superb), Prince Arthur, Lord Nelson, King of Purples.

Light Purple: Ophelia.

Heavy Rose: Victoria Regina, Grace Darling, Princess Royal, Unexpected, Venus, Jeannette, Green's Queen.

Light Rose: Mrs. Barnard, Countess Howe, and Nina.



Gloxinia.
Maria Van Houtte.
D^r Lindley .. *W^r Hoogerveen*



FLORICULTURAL CABINET

DECEMBER, 1851.

ILLUSTRATIONS.

GLOXINIAS.—MARIE VAN HOUTTE, DR. LINDLEY, AND MR. HOOGERVEEN.

MR. VAN HOUTTE, nurseryman, of Ghent, has paid considerable attention to the cultivation of this lovely tribe of free blooming plants, and possesses an unequalled collection. A vast number of seedlings have been raised in his establishment, from which the very best have been selected, and sent out recently. Mr. V. Houtte has more than one hundred of the best kinds, among which are the three varieties we now figure. They are of fine form good substance, and very distinct from any others we have seen. They merit a place in every collection; and some of this charming family of plants should be grown wherever practicable.

Raising seedling flowers with a view to obtain varieties of superior form and distinct in colours from any previous kinds is a most interesting and pleasing process. The following method of raising seedling Gloxinias has been very successfully practised; and as some of our readers may be desirous to assist in improving this beautiful tribe of flowers, we give the particulars:—

Principally impregnate the flowers which are produced at the *early* period of the year, and thus well-ripened seed will be obtained in summer, and the advantage secured of sowing it as soon as ripe, and the young plants will form tubers that season, which will endure the “*rest*” of winter, and a year is gained by it. When the seed is sown as soon as ripe, it more certainly vegetates than when it is retained till the following spring. Sow the seed in flat pan-pots. Have a free drainage, use a turfy-chopped sandy-peat soil, the surface made even, and a quarter of an inch of silver sand spread over it, upon which scatter the seed, pressing it gently into the sand, and sprinkling over it just as much sand as will cover it out of sight. Place the seed-pot in a hot-bed frame, covering it over with a piece of bell glass, and the

plants will soon appear. When they are strong enough, pot the plants into small pots, in a compost of sandy peat, light loam, and old *rotten* cow-dung in equal parts. When potted, replace them in the hot-bed frame. About October *gradually* withhold water, and place the pots in the shed, or cool part of the greenhouse, so as to preserve them from frost. As soon as signs of returning growth are seen the second season, pot the tubers, and treat them similar to older plants.

Such kinds as prove fine and distinct should be increased. Scoop out a leaf, *with the bud* at its base, from the parent stem or trunk; insert it in white sand or sandy peat, pegging it securely down with hooked pegs, and it will soon take root; by due attention none will fail.

When a leaf, *with its bud*, cannot be obtained, pursue the following method:—Fill a pot with sandy peat, to about an inch from the rim, upon which spread half an inch of white sand, settle it with water, take the leaf and cut through the strong ribs, at the under side, in a few places, and then spread it flat upon the sand, the *rib side* to the sand, and secure it down flat by means of pegs or pebbles, but have a peg to secure down the stalk. Place the pot in a hot-bed frame, or similar situation, where it can have bottom heat, cover with a bell-glass, and from the sides of the cuts tubers will be produced. This method succeeds well; but a larger tuber is sooner formed when the *leaf bud* is attached, as by the first described process.

BLOOMING PLANTS.—Early in February take one-fourth of the tubers, pot them in the following compost: equal parts of loam, leaf-mould, sandy peat, and old rotten cow-dung, with a few bits of pots or charcoal mixed therein; have it in a *rough* state and a *free* drainage. Place them in a hot-bed frame or bark bed, and duly attend to their future culture. Repot when required; but do not disturb the ball of roots and soil. At the end of six weeks or two months pot another portion of the tubers, and thus again in succession, and plants may be had in bloom nearly all the year. When the plants have done flowering, *gradually* withhold water, to give the tubers a season of *rest*. Have each successive portion of tubers kept separate, marking them with number one, two, &c., and the plants will, by regular yearly treatment, become habituated to bloom satisfactorily at the desired period. This charming tribe of plants will amply repay for any attention, and during the period of flowering can be kept in a warm sitting-room, if desired. Nearly all the kinds may be procured at the nurseries very cheap.

GROOM'S DR. HORNER TULIP.

This very superb *Bizarre Tulip* is a seedling raised and broke by Mr. Groom, florist, of Clapham Rise, near London, and the price attached to it in his catalogue is one hundred guineas. This is a large sum; but so celebrated a cultivator would not affix such a price to it did not the flower, of its class, possess very superior properties to any predecessor.

The Tulip, it is said, was first introduced into England from Turkey, and was named *Tulipa* from the resemblance of its corolla to the



Dr. Horner.

eastern head-dress, called TULIPAM, or *turban*; and hence our name of TULIP. Moore alludes to the similarity of the *Tulip* to the *turban* in his "Lallah Rookh:"—

“ What triumph crowds the rich divan to-day
 With *turban'd* heads, of every hue and race,
 Bowing before that veiled and awful face,
 Like Tulip-beds, of different shape and dyes,
 Bending beneath th' invisible west wind's sighs.”

The Tulip flower, so much admired in the eastern parts of the world on account of its splendour and variety, has, from time immemorial, been made the emblem by which a young Persian makes a declaration of love. Chardin tells us, that when these young turbaned swains present a Tulip to their mistress, it is their intention to convey to her the idea that, like this flower, they have countenance all on fire, and a heart reduced to a live coal.

The Turks regard this flower with so much delight, that a *feast of Tulips* is celebrated annually in the grand seignor's seraglio. Vases of the purest crystal, filled with the gayest *Tulips*, 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 sun; pyramids of cooling fruits meet the eye at every turn, whilst innumerable birds of song, whose golden cages are suspended by strings of pearl, 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 sounds of the 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, and who sometimes encircle and at others glide around the vases of Tulips, whose beauty they celebrate in song and action.

We are not able to discover any mention of the Tulip in the works of Pliny, which induces us to think that it is *not an indigenous plant of the Levant*, but that it was introduced from Persia and other eastern parts in later days; and that it has since so naturalized itself as to appear like an indigenous plant, for the climate allows the Tulip to propagate itself by seed in the neighbourhood of the Levant, and it is *not extraordinary* to find it growing wild, as it does, in the vicinity of Constantinople.

In 1554 Auger Gislen Busbequius, being at the Porte as ambassador from the emperor of Germany, sent seeds and bulbs of the Tulip to Vienna, and in his letter states, “the Turks charged a high price

for these flowers," which would not have been the case had they been growing wild in that country. *Busbequius*, going to France, left his Tulip bulbs under the care of Clusius, the celebrated botanist of Arras, who, thinking them old and withered, committed them to the rubbish-heap; but to his astonishment they produced a great variety of flowers. Clusius afterward gave more than a hundred of the bulbs to an apothecary at Vienna to be preserved in sugar, as is done with the roots of the Orchis, in order to ascertain whether they had not the same properties. In 1562, a merchant of Antwerp had a cargo of Tulip bulbs; and taking them for a sort of onion, ordered some to be roasted under embers, and ate them with oil and vinegar like common onions; the rest he set in the garden among the cabbages.

It is related that a sailor having taken some goods to a Dutch merchant, had a herring given him for breakfast; but seeing what he supposed a kind of onions lying on the counter, the tar took up a handful and ate with his dried fish, this sauce being of immense value.

Conrad Gesner, who has been denominated the Pliny of Germany, tells us that he first saw the TULIP in the year 1559, in the garden of John Henry Harwart, at Augsburg. Gesner had it *figured*, and published observations upon it in his works; and in consequence the common Tulip has very properly been named *Tulipa Gesneriana*.

Gerard fixes the introduction of the Tulip into England in 1577; and it was cultivated in his garden and those of his friends, Master Garth and Master James Garret. He states, "We have one of great beautie, and very much desired of all, with white flowers, dasht on the back side with a light wash of watchet colour. There is also another of a snow *white* colour, the edges slightly washt over with a little of what we call *blush* colour. We have another like the former, saving that this flower is of a *straw* colour."

During the sixteenth century the rage for flowers, especially the Tulip, was carried to great excess in Holland and France, and the growth and sale of Tulips became a trade of importance, and finally became a gambling system. In 1636, the spirit of floral gambling was carried to such excess at Haarlem, that during three years it yielded to that city a sum of ten millions sterling. Betting to a ruinous amount was often made respecting the eventual superiority of promising seedling bulbs, and for the possessions of breeders of high merit, from which fine seedlings might be expected. A beautiful Tulip, named VICEROY, was sold for the following articles:—Four fat oxen, twelve fat sheep, eight fat swine, two lasts of wheat, four lasts of rye, two hogsheds of wine, four tons of beer, two tons of butter, one thousand pounds of cheese, one complete bed, one suit of clothes, and one silver beaker: the value of which was 460*l.* Soon after another was sold, named *Semper Augustus*, for 846*l.*, a beautiful new carriage, and two horses with harness. Another of this variety was sold for 2,520*l.* Soon afterwards another superior flower was introduced to notice, and purchased for twelve acres of land and 5,000*l.* When a bidder could not be found to offer a sum equal to the supposed merits of a fine flower of this latter recorded variety, it was then disposed of by lottery or raffle. We are told of a person who possessed a very fine Tulip; but finding

there was a second bulb of the same nature in Haarlem, he repaired to that place, and after having purchased 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 Dutch gentleman having an income of 11,000*l.* per annum, purchased Tulips to such an extent, that, in less than one year, by his floral gambling, he reduced himself to beggary. This led the Dutch Government at length to issue a proclamation to suppress this ruinous course.

In Paris the prices given were nearly as extravagant as in Germany, but did not require the interposition of Government. The greatest rage for Tulips in England was from the middle of the seventeenth century (1650) to nearly the middle of the eighteenth; but it was carried on with more caution and moderation than in the continental countries, though as much as 500*l.* each was the price of some of the finest flowers. About 1740 an extensive taste for botany commenced, and the procuring of new exotic plants, as well as hardy shrubs, herbaceous plants, &c., from foreign countries was eagerly pursued. This led to a decline of the Tulip mania. Still, however, the taste for its cultivation is very extensive, both in our own country and Holland, and for flowers of superior merits the cultivators in England far exceed those of any other country; and we believe Mr. Groom possesses the most extensive collection of superb varieties of any Tulip-grower. One bed, which comprises his best varieties, usually contains 2,000 Tulips, besides which he has an immense quantity. All admirers of this beautiful tribe of flowers should visit his establishment when his stock is in bloom.

Several excellent articles on the culture of Tulips have already appeared in this Magazine. We refer our readers to the part,* rather than insert particulars here. The Tulip we now figure, Dr. Horner, is what is termed "a light feathered bizarre, having a slender beam down the centre of each petal, of excellent form and pure colour."

Seedlings, generally, when they first bloom, are without stripes or markings, a yellow or white bottom, and all the *upright* portion of the petals are self-coloured, a brown, red, rose, purple, scarlet, &c. In this state most continue for several years without variegation, and are termed BREEDERS.† Eventually they *break* (as it is termed) into stripes, and they take their stand according to the merit of their respective properties. They are usually divided into four classes: ROSES, which have *white* grounds, with various shades of red; BIZARRES, which have *yellow* grounds, with any dark colour for their markings; and BYBLOMENS, which have *white* grounds, with lilac, black, and purple for their markings; and TRICOLORS are those that have three or more colours intermixed. These are not allowed as show flowers.

* See Volume for 1850, by Dahl.

† During these years most of the breeders produce an increase, and the young bulbs being taken from the parent one, planted annually, &c. by the time that the flower of the parent bulb *breaks*, there is a number of its progeny. These young breeder bulbs are sometimes offered for sale, prior to the original bulb having broke. Persons desirous of purchasing such may generally be supplied by the Tulip growers in the trade.

The disposition of the darker colours upon the white or yellow grounds are again made the distinguishing characteristics to bring the flowers into sections, and are termed, 1st, flamed; 2nd, feathered; and, 3rd, flamed and feathered on the same flower. The *flame* is a direct stripe or blotch up the *centre* of each petal. The *feather* is fine streaks on the *edges* of each petal. They are again termed light or heavy feather or flame, according to broad or narrow portion of the deeper colours. A flower having an unbroken feather, *without any flame*, is a *true* feathered flower. And a writer in the "Midland Florist" says, "Why should not a *flamed flower* be correct, indeed *only correct*, when it is *without any feather*?" It has been the custom to term flowers *flamed* when they had that peculiar marking up the centre, and *with* or *without* a *feathered* edge." But the writer adds, "Why should not a *flamed flower* be correct, indeed *only correct*, *without any feather*?" He suggests further that those flowers which have *feather and flame* be identified as a distinct section, so that in future the distinction should be, 1st, feathered; 2nd, flamed; 3rd, flamed and feathered. This suggestion is precisely what our respected correspondent Dahl states, in his Letter No. 1, on Tulips, which is given at page 15, January Number, 1850, was the system in use at that time. Certainly it ought to be the standing universal rule in all exhibitions of this lovely tribe of flowers. The confusion and disputing that has long existed on this latter particular has induced us to give at length the remarks on the distinctions, hoping such disputations will not occur in future to interrupt the harmony which at all times ought to exist with florists, and especially so at their festive exhibitions.

NOTES ON NEW OR RARE PLANTS.

ABELIA RUPESTRIS.—A small deciduous spreading shrub, with white flowers about half an inch long, and somewhat like the Honeysuckle. It is a native of the Chamoo Hills, in China, where it is found growing amongst the rocks. It is a pretty greenhouse plant, growing and flowering freely. It is sweet-scented, and keeps in flower for a length of time.—(*Paxton's Flower Garden*, No. 400.)

ARAUCARIA COOKII.—This is a large growing greenhouse species, a native of New Caledonia, in the South Pacific, a plant of which is in the Horticultural Society's Garden at Chiswick. It has somewhat the appearance of *A. excelsa*, but more compact when old, and less stiff and more graceful when young. There are large forests of it in New Caledonia, and Captain Cook, the navigator, makes mention of the first plant of it in his account of New Caledonia, as having an elevation like a tower; this still stands, and is in a flourishing condition. Its appearance *now* is exactly that of a well-proportioned factory chimney of great height.

CAPSICUM CEREOLUM.—Introduced by Mr. Lobb, from the west coast of South America, to the establishment of Messrs. Veitch and Son, of Exeter. It is a half-shrubby greenhouse plant, with *bright*

yellow conical fruit, which contrasts well with the lively green foliage; and its fruiting during the summer and autumn renders it a very desirable plant for the greenhouse.—(*Paxton's Flower Garden*, No. 402.)

CENTROSOLENIA PICTA.—A creeping succulent stove plant, with handsome painted and blotched foliage, flowers nearly white, about two inches long, tubular. It was introduced by Mr. Spruce from the banks of the river Amazon, in the tropical part of South America, who sent it to the Royal Botanic Gardens at Kew.—(Figured in *Bot. Mag.*, 4611.)

COTONEASTER THYMIFOLIA.—A pretty little evergreen prostrate shrub, about half the size of *C. microphylla*, with red fruit, very suitable for rockwork. Introduced to France from Gossaire Than, in Nepal.—(*Paxton's Flower Garden*, No. 405.)

DENDROBIUM GIBSONI.—Introduced by Mr. Gibbs from India to the Duke of Devonshire's establishment at Chatsworth, where it flowered last September. The flowers are produced in a pendant raceme; each blossom is about an inch and a half across, of a rich apricot-yellow, with a purple blotch on the lip. One of the finest of the yellow species.—(*Paxton's Flower Garden*, No. 406.)

FITZ-ROYA PATAGONICA.—A splendid hardy coniferous tree, introduced first by Captain Robert Fitz-Roy, of Her Majesty's ship *Beagle*, and since it has been sent by Mr. Lobb from Patagonia to Messrs. Veitch's nursery, where it is now growing in the open ground. The twigs are covered with small scaly leaves, about a quarter of an inch long, bright green. It produces cones (of a greenish-yellow colour) abundantly from very young plants.—(Figured in *Bot. Mag.*, 4616.)

LAPAGERIA ROSEA.—We figured this most beautiful flowering plant in our Magazine for 1850. Its blooming this season has more than realized all that was stated relative to it. It is a large climbing plant, and in its native country, Chili, it scrambles over bushes in the woods, producing a profusion of its large bell-shaped (as large as a Tulip) brilliant rosy-red, speckled with white, blossoms. It flourishes in the conservatory or greenhouse, having free root room. Mr. Lobb, Messrs. Veitch's collector, states, that "the climate of Chili is much like that of Cornwall, in England. Frost often occurs in winter, but is of short duration. Summer is also wet and cold, the thermometer seldom rising beyond sixty-five degrees; but although frost is not so severe, the south winds are very cutting, and I am inclined to think that, if anything be required, it will be sheltered situations for those that inhabit low grounds near the sea."

MIMOSA URUGUENSIS.—The Hon. W. F. Strangways obtained this pretty flowering shrub from Buenos Ayres. It is about as hardy as the general mass of New Holland Acacias. It has been in the Horticultural Society's garden at Chiswick for several years, where it blooms freely in the open borders during summer and autumn, and is very ornamental. The flowers are in size and form very like those of the *Humble-plant*, and of brick-red colour. Its blossoms, in contrast with

its *finely* divided shining delicate foliage, have a very pretty effect. It is nearly a hardy shrub, and ought to be tried in every likely garden or ground.

PLATYCODON CHINENSE.—Mr. Fortune brought this handsome (Campanula) flowering plant from Chamoo, in China. Dr. Lindley observes, “At first we took it for a mere variety of *Platycodon grandiflora* (Campanula grandiflora of some), originally from *Siberia*. This latter species has usually but one flower at the end of the stem, or at most two; on the contrary the *P. chinense* *always* has a *long raceme*, and will sometimes have branches. It is the finest herbaceous plant Mr. Fortune sent from China to the Horticultural Society. It is nearly hardy, but in cold situations requires to be kept in a cold frame in winter. The flower stems rise from two to three feet high, bearing a profusion of flowers. Each blossom is two inches across, of a deep blue colour. The leaves are green above, but of a silvery hue beneath, oval shaped, finely serrated. It deserves a place in every flower border. There is a semi-double white variety, figured in the *Journal of the Horticultural Society*.

POTENTILLA AMBIGUA. THREE TOOTHED.—Dr. Hooker found this pretty species growing at Sikkim-Himalaya, in woods at an elevation of from 12,000 to 13,000 feet above the level of the sea. From a woody perennial root numerous *stems* diverge around, and they rise from six to twelve inches high, frequently of a purple colour, but the *leaves* are green. The contrast is pretty, more especially so when the rich yellow flowers are full blown, each being an inch across. It is a free growing plant, increasing rapidly, rooting like some of the creeping Verbenas. It blooms all the summer and up to late in autumn. It is in the Royal Gardens of Kew, and deserves a place in every flower garden, either as a border ornament in patches, edging for a bed, or on a rock work. (Figured in *Bot. Mag.*, 4613.)

PRIMULA INVOLUCRATA.—A native of Northern-India, a hardy perennial herbaceous plant. The flower-scape rises from six to nine inches high, bearing three or four white blossoms, each being about an inch across, fragrant. It is a desirable plant for rockwork, not too much exposed to sun. It blooms in the open border about March, but earlier if kept in a cool greenhouse, or pit frame: it is in the Chiswick Garden. A very pretty addition to this lovely tribe of early flowers.—(*Journal of Horticultural Society*.)

SPHEROSTEMA PROPINQUUM.—Dr. Hooker found this handsome somewhat climbing shrub growing at from 7,000 to 9,000 feet in Sikkim-Himalaya. It is a much branching, twiggy plant, its leaves being much like the common *Syringa* for size and form, but quite smooth. It is fragrant, and the natives eat the fruit, which consists of many berries, which, when ripe, resembles a long bunch of red currants. The flowers have fine petals, nearly an inch across, of a pale yellow colour. It flourishes in the palm stove at the Royal Gardens of Kew, but will succeed in a warm greenhouse.—(Figured in *Magazine of Botany*, 4614.)

VACCINIUM ROLLISSONII. ROLLISSON'S WHORTLEBERRY.—Messrs. Rollissons' collector discovered this handsome flowering plant growing on the lava of the "silent volcanoes" of Java, on the highest land in the island. It is a neat evergreen shrub, growing two feet high, numerous branched. Each leaf is about the size and form of our common shrubby box. The flowers are produced in short terminal racemes, the blossoms drooping, the tube of each being about half an inch long, and tapering to the end, similar to some of the Cape heaths of the ventricose varieties, and of a rich scarlet colour. It is a valuable acquisition. Requires to be grown in the greenhouse, but in summer may be placed out doors, in a somewhat shady place.—(Figured in *Bot. Mag.*, 4612.)

—————

Showy Plants now in bloom.

EPACRIS ALBIDA COMPACTA.—The flowers are pure white, bell-shaped, an inch long. A very handsome variety, and deserves to be in every greenhouse.

EPACRIS LIMATUS.—The tube is an inch long, a bright pink, with the end a pure white. The contrast is exceedingly beautiful. It ought to be in every greenhouse.

EPACRIS SANGUINEA.—Tube an inch long, of a deep blood-red. It is very handsome, and its deep rich colour renders it highly ornamental. It should be in every collection.

EPACRIS CAMPANULATA RUBRA.—The flowers are bell-shaped, half an inch long, a pretty rosy-red colour.

EPACRIS CAMPANULATA ROSEA.—The flowers are bell-shaped, half an inch long, and of a beautiful delicate rose colour. It ought to be in every greenhouse.

EPACRIS NIVEA.—Flowers bell-shaped, half an inch long, white. Neat and pretty.

EPACRIS MINIATA.—Tube one inch long, a light scarlet, with the end pure white.

EPACRIS HYACINTHIFLORA.—Tube wide, nearly an inch long, a beautiful bright blush colour. Very handsome.

EPACRIS ALBA COMPACTA.—Tube about three-quarters of an inch long, widish, a pure white. Very beautiful, and borne in profusion.

EPACRIS ONOSMAFLORA.—Flower bell-shaped, near half an inch long, white tinged with green. The plant is of stiff growing habit.

EPACRIS OBTUSIFOLIA.—Leaves short and stiff. Flowers broad, mouth funnel form, white, with a rose tinge.

EPACRIS IMPRESSA.—Tube three parts of an inch long, and a bright flesh colour. Very pretty.

BOSSLEA VIRGATA.—Leaves small and neat. The pretty pea-formed flowers are yellow, with a bright crimson eye-like centre. It blooms in profusion, and deserves to be in every greenhouse.

Many of the lovely Acacias are coming into bloom, and will be beautiful and fragrant for several months. The following are particularly handsome, and highly merit a place in every greenhouse or conservatory :—

ACACIA TRINERVATA.—The leaves are narrow and an inch long. It is a handsome bushy plant. Flowers a pale yellow, delicate and pretty.

ACACIA ROTUNDIFOLIA.—The leaves are circular, a quarter of an inch across. It is a very neat bushy plant, the flowers are a bright yellow colour, and produced in profusion. It is very neat and beautiful.

ACACIA VESTITA.—The leaves are half an inch long. It is a very neat bushy plant. The flowers are borne in large branching spikes, and along them the blossoms are produced in short racemes of ten or twelve in each. They are a pretty light yellow colour. It is a handsome species.

ACACIA PREMORSA.—The leaves are short, and the plant forms a pretty bush, blooming very profusely, flowers a rich yellow. Very pretty.

ACACIA LINEATA.—The leaves are near an inch long, narrow. The plant is bushy and neat. The flowers are produced in profusion, and of a rich golden yellow colour. It is exceedingly handsome.

ACACIA DENTIFERA.—The leaves are four inches long, very narrow. It forms a neat branching bush. The flowers are a rich deep yellow colour, and the globular heads large. It is a very beautiful species.

ACACIA OVATA.—The leaves are oval-shaped, half an inch across. It is a very neat bushy plant. The flowers are produced in long spikes, and are a rich yellow colour. It is a very handsome species.

ACACIA LEPTOREURA.—Leaves like a thinly foliated Pinus, about three inches long. The flowers are a deep yellow. It is singularly pretty.

POINSETTIA PULCHERRIMA.—The leaves are something in the shape of the Tulip-tree, of a dark green, pretty. The end of each main shoot terminates in a crown of large rich crimson leaves (bracts) and are exceedingly ornamental, enduring through winter. Two or three placed among a collection of other plants have a fine effect. It may be easily brought into bloom in a hot-bed frame, warm pit, or stove, and then be taken into the greenhouse, or sitting-room, to display its splendour.

EUPHORBIA JACQUINIFLORA.—We have on former occasions noticed this very beautiful flowering plant, its long racemes of rich orange-scarlet flowers, each about the size of a fourpenny piece, produce a charming appearance. It may be treated the same as the Poinsettia above noticed. Both plants ought to be in every collection of autumn and winter blooming plants, and may be had cheap at the nurseries. Double White and Red Chinese Primroses are fine things for autumn and winter; every greenhouse, or sitting-room, should have them. They are cheap too.

ERICA MAMMOSA.—The flowers are an inch long, red; *E. mammosa superba*, orange-scarlet; and *E. mammosa pallida*, rosy-pink and white. These bloom freely in autumn and winter, and well worth a place in the greenhouse.

ERICA CAFFRA.—Small white flowers, sweet, produced most profusely. *E. gracilis*, bright purple, small flowers, but borne in profusion. These are excellent autumn and winter bloomers, appearing one mass of flowers, they are much admired, and valuable for ornamenting an entrance room; persons who engage to supply flowering plants for the year, as many about London do, find these plants very useful. They

are cheap. *E. Linnæoides superba* is now a most beautiful ornament, white and rosy-purple.

MINIMA CHRYSANTHEMUMS.—We have previously stated that this new class of *Chrysanthemums* bloom best the second season. The plants which were struck in the summer of 1850, and have been encouraged in growth this season, are now around London in fine bloom; they are exceedingly handsome, some of them very like the best and neatest of the Double Daisies. Every greenhouse and sitting-room ought to have some.

The following flowers are now exhibited in bouquets, or single cut specimens, we give the list that our readers may know that such showy flowers can now be brought into bloom, and nearly all the kinds may be had in bloom through winter and spring:—

Gesnera zebrina, *Bigunia venusta*, Double Red and Double White Chinese Primroses, the Single also. *Coronilla glauca*, *Corræa speciosa*, *Acacia armata*, *Combretum grandiflorum*, *Cinerareas*, *Camellias*, *Cactus truncatus*, *Amaryllis Johnsonii*, *Luculia gratissima*, *Lantana miniata*, *mixta*, and *crocea*. Various scarlet *Geraniums*, *Azalea indica*, the white and several others; the handsome *Euphorbia Jacquiniiflora*, *Erica caffra*, *Linnæoides gracilis*, and the *mammosa alba*, *mammosa rosea*, Double Violets, *Fuchsias*, *Rondoletia speciosa major*, *Mignonette*, *Nerium Oleander*, *Gardenia radicans*, *Hemimeris*, *Plumbago rosea*, *Torenia asiatica*, *Achimenes picta*, *Chrysanthemums* in profusion. Three kinds of *Heliotropes*, Sweet *Cyclamens*, *Roses*, Tea scented; *Lily of the Valley*, *Begonias*, *Salvia speciosa*, *oppositifolia*, *gesneriflora*, and *Cuphea platycentra*.

“ THE HYACINTH.”

“ Hyacinth, with sapphire bell,
Curling backward.”

“ Some deep empurpled ———,
Some as the Rubin laughing sweetly red,
Some like fair Emeraudes not yet well ripened.”

HAD the oriental Hyacinth been disregarded by the poets, it could not have failed claiming our notice and admiration by its extreme delicacy of colouring, elegance of form, and delightful fragrance, which fits it alike for the garden of choicest plants, or the vase of odorous flowers. Hence, no wonder that Phœbus became enamoured with its beauty, and Zephyrs sighed to enjoy its sweet breath; that our artists should invent glasses for the bulbs, and our fair countrywomen should foster them with such care in their saloons.

The Hyacinth may be considered as supreme amongst the flowers of the spring as the Rose is amongst those of the summer, and its charms have rendered it a successful rival to the Tulip even in the hearts of the Dutch florists. It is a native of the Levant, and grows abundantly about Aleppo and Bagdat, where it flowers naturally in February. Lepechin found it in Russia, not only with purple corollas, but with yellow flowers also. These beautiful flowers appear to have been

common in our gardens prior to 1597, as Gerard does not mention them as being rare in his time ; but observes, " These kinds of Jacints have been brought from beyond the seas, some out of one countrey, and some out of others, especially from the east countries, whereof they tooke their names *Orientalis*."

It is probable that these bulbs and many seeds of eastern plants were brought to this country during the early part of the reign of Elizabeth, as we find that about the year 1561 she enabled Anthonie Jenkinson and others to visit Persia on a trading speculation in raw silk, &c., and in which they eventually succeeded ; and Monsieur de Thou remarks, that this company of the English also obtained the exclusive privilege of importing all manner of foreign commodities into Russia, and by this support they were encouraged to visit the several provinces of the east more carefully than other nations could do.

The cultivation of Hyacinths receives more attention, and is in higher estimation with Dutch florists at present, than that of Tulips. The Hyacinth is certainly a very superior kind of flower to the Tulip ; but we presume that the great attention given to it by the Dutch is owing to the increased demand from London and Paris, where the roots are sent in large quantities, and where, from our own observations, we conclude that nearly three-fourths of the bulbs that are imported are lost through carelessness after they have once flowered, particularly those that are grown in glasses.

It is calculated that more than a hundred English acres are occupied for rearing bulbous plants, principally Hyacinths, near the village of Overveen, in the neighbourhood of Haarlem, where the best growers keep about 50,000 bulbs as breeders, and these florists now enumerate upwards of 2,000 varieties of the Hyacinth. The list of one florist at Haarlem enumerates more than 800 kinds of double-flowered Hyacinths, besides about 400 varieties of the single kind.

Peter Voerhelm was one of the earliest cultivators of the Double Hyacinth, which was about the beginning of the last century. Previously to his time the single kind only had been propagated. This florist named his first Double Hyacinth Mary ; but the kind is now lost, and his third double flower was called the King of Great Britain, and this is now the oldest Double Hyacinth known, a single bulb of which used to bring the price of a thousand florins, or one hundred pounds sterling ; and about seventy years back two hundred pounds was no uncommon price for a single bulb of a favourite Hyacinth. At present about ten pounds is the general price given for the finest bulbs, and from one to ten shillings for the varied sorts ; what are called the common mixtures are sold from one to two pounds a hundred.

The criterion of a fine Double Hyacinth consists in its stem being strong, tall, and erect, garnished with numerous and large bells, each supported by a short and strong peduncle, or footstalk, in a horizontal position, so that the whole may have a compact pyramidical form, with the upper flower perfectly erect. The flowers should be large, and perfectly double : that is, well filled with broad bold petals, appearing rather convex than flat or hollow. The flowers should occupy about one-half the length of the stem. The colours should be clear and

bright, whether plain yellow, red, blue, or white, or variously intermixed and diversified in the eye, which is thought to give additional lustre and elegance to the Hyacinth. Strong bright colours are in greater request, and bear a higher price than such as are pale. Under bad treatment good Hyacinths will degenerate in two or three years; but in Holland they have been preserved perfect for nearly a century.

Everybody knows that the bulb of the common onion is exhausted by its flower stem, and that when it has performed its oviparous duties, as ordained by Nature, there are no remains of the bulb left. Not so with the Hyacinth; there Nature works in a more complicated manner, for whilst the stem is sent out of the earth to form its seed, the bulb is forming a new germ or bud within the next coat or circle of the lamina; and thus, whilst the flower stem is exhausting the old germ or heart of the bulb, a regeneration is taking place within the body for the succeeding year; nor is this all, for as the Hyacinth possesses a viviparous nature also, it throws off perfect plants from its side beneath the earth.

Who can look into these mysterious works of Nature without having his mind enlightened, and his admiration increased towards the Omnipotent Being,

“ Whose sun exalts
Whose breath perfumes, and whose pencil paints
The Hyacinth.”

Some varieties of the Hyacinth do not so readily throw off young bulbs as others, but require all the nourishment to form their flowers, and support the seed vessels. In this case a simple expedient is resorted to, if the variety be scarce and valuable. The base of the bulb is slightly cut or notched in three or four places, which hinders the plant from exhausting itself in the production of a flower stem, and at the same time induces a tendency in the bulb to throw out off-sets at the wounded places, and these off-sets soon become independent plants, with all the character of the parent bulb.

To raise Hyacinths from seed is doubly desirable, as it increases the quantity and also the variety of this admired flower. Plants that have a strong and straight stem, and a regular and well-formed pyramid of bells that are semi-double, should be selected for seed. They should not be gathered till they have become perfectly black and ripe, at which time the pericarpium will appear yellow on the outside, and will begin to open. The stem, with which the seed is connected, is then to be cut off, and placed in a dry airy situation, but not in the sun, where it may remain until the time of sowing, which is either about the end of October or the beginning of March. The seeds should be sown in pots or boxes filled with compost, as will be described. The seeds should be as regularly sown as possible, and then covered with the compost about half an inch thick. These pots or boxes should be placed in a warm situation for the winter. They will never require water or other attention, excepting to keep the boxes free from weeds and the frost. At the approach of the second winter an additional stratum of about half an inch of the compost must be spread over the pots or boxes, and about the middle of July in the third year the bulbs may be taken up, dried, and treated in the same manner as old bulbs

or off-sets. Some of the bulbs may be expected to flower in the fourth year, and others in the fifth and sixth, according to their strength. The Dutch florists consider it a successful sowing if they procure four or six good varieties out of each thousand bulbs so raised. Maddock says we must be content if we find one flower in five hundred deserving a name or place in a curious collection; but for ourselves we should prefer seeing the four hundred and ninety-nine common varieties flowering at one time on our parterre, than a single plant of the most curious variety; not but that we would wish them all to be of the best kinds if possible, but in Hyacinths, as in Violets, we covet quantity, both to gratify the sight and the smell. Those for the house, or that are intended to be sheltered by awnings, should be of the most curious kinds, whilst those of least attractions may form clumps in the open borders, but where they are in some degree screened by shrubs or taller plants.

Off-sets will bloom the second year, and tolerably strong the third, if properly treated. They may be planted soon after they are taken from the old bulbs, and it is desirable to form a separate bed for these young bulbs, and which should be in an open part of the garden that is screened from the north and eastern winds. The bed should be a few inches above the common level of the garden, so that superfluous moisture may run off, and for this end it is advised that the beds be formed of a rounding or convex shape. The bulbs should be covered about two inches deep with the compost.

The compost most esteemed at Haarlem for growing Hyacinths consists of pure white sand, rotted leaves of trees, fine peat earth, and a small proportion of thoroughly rotted cow-dung, and this prepared soil is renewed annually after the bulbs are lifted in summer. The compost in which they grew is removed to the depth of about nine inches, and the sub soil is digged over; a new layer of compost of equal depth is afterwards introduced; and in this the choice bulbs are again planted in the autumn. The compost in which the Hyacinths grew descends the following year, first to the Tulips, and then to the Narcissus, &c., so as to give them all a regular change of soil, adding more cow-dung or more sand to the compost, as the nature of the succeeding plants may require,

From the middle of October to the middle of November is the best time for placing the Hyacinths' bulbs in the ground, for when planted earlier they appear above the ground in the middle of winter; and if neglected later, the bulbs will be weakened by their natural tendency to vegetate. The bulbs may be placed from six to nine inches apart, and it is advisable to place a small quantity of sand beneath each bulb, to prevent the earth adhering too closely to them.

It is the practice to plant Hyacinths alternately on the beds according to their colours; but when they are planted in the flower-garden, or on the projecting borders of the shrubbery, they will be found to have a much better effect when clumps are formed of distinct colours.

The principal Hyacinth-growers in Holland take up their bulbs about a month after bloom, or as soon as the plants begin to appear yellow and decayed. They then cut off the stem and the foliage close to the bulb, or within about half an inch of it, but leave the fibrous

roots attached to the bulb; the bulbs are then placed on the same bed on their sides, with the points towards the north. They are then covered with dry earth or sand, about half an inch thick, in the form of a ridge or cone; and in this state they are left to dry or ripen gradually for about three weeks. They are then taken up, and their fibres gently rubbed off, after which they are laid in a dry room for a few days, and then cleared from soil or loose decayed coats, &c., and their off-sets separated. The bulbs are then placed in shallow drawers, where the air can circulate around them. Some persons place them with the base of the bulb upwards; but the most material thing is to keep them from damp, and place them where there is a free circulation, as on a lattice shelf, or in open wicker-baskets, with little sticks across to separate each layer of bulbs; and these baskets may be suspended to the ceiling to keep them from vermin.

It has been ascertained that the Hyacinth will grow and flower in the water without sending out fibrous roots. In the year 1787, M. le Marquis de Gouffier exhibited to the Royal Society of Agriculture in Paris a glass, with the bulb of a Hyacinth turned the base upwards; in this state it sent down a stem and leaves into the water, but the bulb did not send out roots upwards; the leaves were very green, but the petals of the flowers, which should have been blue, were of a discoloured white. This experiment proves how much the foliage of plants has the power to assist in their growth, since they can even subsist without the aid of the root.

I have subjoined a descriptive list of a few of the best in each class, suited equally well both cultivated in glasses or pots:—

SIX DOUBLE RED.

Bouquet royal, large rose, carmine eye.
Grootvorst, very large rose.
Lady Grafton, large striped carmine, green tips.
Lord Duncan, large rich pink.
Lord Wellington, largest rose.
Waterloo, deep carmine.

SIX DOUBLE BLUE.

Admiral of the blue, deep blue.
Duc de Normandie, blue, purple stripe.
Helicon, rich blue, extra fine.
Laurens Koster, violet, dark mottle.
Othello, splendid black.
Pasquin, light blue, dark eye.

SIX DOUBLE WHITE.

A la Mode, white, violet eye.
Anna Maria, white, purple eye.
Bride of Abydos, pure white.
Comtesse de Hollande, white, fine eye.

SIX SINGLE RED.

Henrietta Wilhelmina, rose, white stripes.
La Dame du Lac, shaded rose.
Le Franc de Berkhey, splendid rosy pink.
Princess Royal, deep rose.
Queen Victoria, rich crimson.
Temple of Apollo, rich flesh.

SIX SINGLE BLUE.

Bonaparte, light blue, dark shade.
Francois, deep blue, white eye.
La Grande Védette, large pearl blue.
Nimrod, large bright light blue.
Tubal Cain, rich dark indigo.
William the First, large black.

SIX SINGLE WHITE.

Duchess of Kent, French white.
Hercules, French white.
Madame de Talleyrand, pure white.
Vainqueur, pure white.

Don Gratuit, white, primrose eye.
Triomphe Blandina, wax-like
white, carmine eye.

Reine de Hollande, large white,
very fine.
Voltaire, large wax-like white.

SIX DOUBLE YELLOW.

Emperor of China, rich primrose.
Grand Monarque, pink eye.
La Belle Chinoise, new and
splendid yellow.
La Belle Souffrée, large primrose.
La Favorite, orange.
La Grandeur, large citron, red
eye.

SIX SINGLE YELLOW.

Golden Branch, large truss.
Heroine, rich primrose.
Lord Brougham, fine chamois
colour.
Prince d'Orange, fine yellow.
Sterne, very large citron.
Victor Hugo, extra rich yellow,
new.

THE PROGRESS OF THE PELARGONIUM.

(Continued from page 275.)

BY ORION.

HAVING now reached the year 1848, a period so little removed from us, it would have been better, perhaps, to pause here, leaving it for some future time to take up the "continued progress," for such it evidently will be while we have so many gentlemen striving so earnestly to reach perfection; but in order to make the present series as complete as possible, a few notes up to the year 1851, so eventful for everything, may prove the best conclusion to these, perhaps rather too finely drawn out, remarks. 1848, then, gave us Beck's best batch (taking them "all in all"), *CENTURION, *CAVALIER, *CRUENTA, GUSTAVUS, *GULIELMA, and ROSAMOND, each at a guinea and a-half, CASSANDRA, and *HONORA, one guinea; also two "trade flowers" again, BLANCHE and GRANDIFLORA, each at fifteen shillings, all contributed to make these flowers "the rage," so much so that we shall find for once Mr. Foster was compelled "to hide his diminished head." Mr. Lyne this year first introduced the celebrated Queen of Song, or rather of *light Pelargoniums*, JENNY LIND, at two guineas; also MERCURY and STAR OF THE WEST, each at a guinea and a-half. Mr. Gaines's *SALAMANDER, at two guineas, proved to be a good acquisition among the high-coloured flowers. ORIFLAMME, at one guinea, in the same way, never attained the same popularity. Mr. Miller, of Ramsgate, made some stir in the floricultural world with some "grand novelties," which, had they at all resembled the plates published of them, would indeed have been "sought after;" but FLORA'S FLAG, DISTINCTUS, ROSA MUNDI, SCARLET DEFIANCE, *QUEEN OF KENT, and some others, did not give that satisfaction to purchasers which their painted resemblances (?) had led purchasers to expect; and as no more appeared from the same source, it may be supposed that they did not "go down;" and yet they did *go down*, for they have never appeared on the "exhibition tables" since. BLACK PRINCE, raised by a Mr. Folley, and sent out by Mr. Rendle with Mr. Lyne's flowers, was well worthy the moderate sum of half a guinea; it was a beautiful flower, but its being of under size told against its getting much into cultivation. Mr. Foster's flowers

this season were BERTHA, CLARINDA, MARIAN, at one guinea; LUCRETIA and ORPHEUS, each at two guineas, comprising little of any note. This gentleman seems about this time to have "rested from his labours," perhaps taking breath to accomplish a "greater stride," as he has since done, but changing gardeners may have had somewhat to do with the apparent mediocrity of flowers raised by him about this period. ANACREON, CUNARD, NITIDUM, PHÆBUS, and PICTUM, all at one guinea each, owed their origin to Mr. Garth; but these, like Mr. Foster's flowers, all "paled their fires," contrasted with Mr. Beck's and Mr. Lyne's new strain of this rapidly increasing popular flower. Mr. Cock had one, MELPOMENE, at one guinea. A nice bright variety, named MRS. BROCK, also at one guinea, was first sent out. Mr. Hoyle, it seems, made a stand this year, but only to come out the following season with renewed vigour. Mr. Beck having now fairly "entered the lists," it is only doing him justice to state that his flowers generally possessed "stoutness of petal," one quality which ought never to be dispensed with; "good growing habits," very desirable to exhibitors; "freedom of bloom;" and, lastly, a "general constancy," that is, few, if any, "sporting."

To resume progress: as just stated, Mr. Hoyle "made up" a formidable array of celebrated names in 1849. *CRUSADER, at two guineas, heads the list; and who that has grown this beautiful variety will not agree in saying, "What a pity it is such a fine flower should possess such a weak 'running habit?'" in consequence of which it never has been an exhibition flower, but its popularity is still great. ABD-EL-KADER, BELLE OF THE VILLAGE, *PRESIDENT, ROLLA, *SPARKLER, and TERPSICHORE, each at one guinea, are all beautiful things in general. SPARKLER, however, proved to be a "racer," being always given to "sporting." The same raiser's FLAMINGO, PROMETHEUS, and *SUPERLATIVE, with some others, at fifteen shillings, go towards making-up a good long dozen. Topping's *BRILLIANT must here be mentioned as being exhibited successfully many times; it soon became the *rage*, and, as a fine large scarlet flower, it stands at present unrivalled; the price was two guineas, which did not prevent its getting into pretty general cultivation; but it was soon discovered that, noble flower as it is, it would never be what is termed suitable for exhibition purposes, being, like CRUSADER and some others, of "uneven habit." A good dark variety, named ELEGANS, at one guinea, quite a novelty indeed, and another very dark flower, REBECCA, at half a guinea, both raised by Mr. Topping, with the beautiful VIRGIN QUEEN (sent out by Mr. Rendle at thirty shillings), all coming from the "west of England," showed that there were many "good men and true" rendering much service to that progress here undertaken to chronicle. Mr. Story sent out, through Mr. Beck, his pair of MONT BLANCS, *No. 1 and No. 2, for a guinea and a-half. No. 1 was the best, but has failed to displace "*Pearl*," perhaps from its having a bad habit. Mr. Beck's own flowers this year were, *DELICATISSIMUM (very beautiful, but, alas, with a bad weak habit), EMILIA, PRINCESS, REFULGENT, SUNDOWN, *STAR, and SYMMETRY, each at one guinea. Mr. Beck was tempted to let out also a "fancy" notched variety, called *HARLEQUIN,

at fifteen shillings, about which the less said the better. Mr. Foster's, without being anything very striking, served to keep his name before the public: ALONZO, ARMADA-SUPERB, LAMARTINE, LALLA ROOKH, ONDINE, NORAH, PHYLLIS, and VICTORY were the principal. Mr. Whomes, late gardener to Mr. Foster, gave the world some novelties; foremost was WINDSOR CASTLE, at one guinea, really a handsome flower, but approaching the "fancy" class too much; QUEEN VICTORIA, also one guinea, if it had the constancy of its namesake would have been an acquisition. It may here be remarked, that QUEEN VICTORIA flowers have often appeared on plants of WINDSOR CASTLE; so, perhaps, both derived their origin from the said seed-pod. Mr. Gaines's ASPASIA and *MELEAGER, each at two guineas, were passably good, and complete the list for this year.

To those who grow the above-named flowers (for few are yet discarded), it would be superfluous here to enlarge on their respective merits; but for the information of those who are not growers of them, it may be stated that the varieties which showed the greatest amount of progress were CRUSADER, BRILLIANT, and DELICATISSIMUM. The principal feature of this year, however, was the Seedling Pelargonium Exhibition held at Upton Park, near Windsor, and which has been continued (under improved management) elsewhere since. The results of this gathering together must be introduced under the year 1850, to which period we are now arrived. Mr. Foster must be mentioned first, as his flower, *GIPSY BRIDE, distanced all others, though from its *being small*, and of a terribly bad weak habit, it has disappointed many anxious purchasers; but for their consolation it may be safely asserted, that when an average-sized flower *is* obtained it has the most good points (of course only the bloom is here meant) of any variety yet raised, and until another *larger and better one* is produced, may be considered the "standard of perfection" hitherto reached. But this is only an illustration of what remains to be yet accomplished. The best flower yet raised is of under average, size, and bears the character of being one of the worst to cultivate. Mr. Foster's other flowers were *CONSTANCE, CONSPICUUM, NARCISSUS, ARMADA IMPROVED, and ALDERMAN: the latter was sent out as Black's, that being Mr. Foster's gardener's name. It should be noted that to Mr. Bragg, of Slough, was entrusted the letting of them out, which he did for the first time at very moderate prices; but the stock of GIPSY BRIDE being small, two guineas was the sum fixed for it. The next flower to be mentioned must be the one which obtained the second prize at Upton Park, Major Foquet's *MAGNIFICENT; and if the award was to have been for the best flower, taken "all in all" must have been placed first. This variety, now become so popular, was sent out by the raiser! a circumstance which must have prevented a large "first year's," sale: the price advertised was two guineas. The third-placed flower was *FIELD MARSHAL, another west of England gentleman's production, Mr. Symons, Messrs. Veitch of Exeter, sent it out at a guinea and a-half; Mr. Beck's CUYF, *EMILY, GOVERNOR, *LOVELINESS, PAINTER, PET, and *ROSALIND; all more or less contributed to keep up this raiser's reputation. The same cannot be said of CLOWN and SINGULARITY,

two more notched *ugly* varieties, after the style of HARLEQUIN. From the circumstance of no more of these varieties appearing since, we may infer that they did not "go down," and it had been better, perhaps, if they had never been "sent out." A few more good flowers must be hastily mentioned. Mr. Bragg's FALSTAFF, not by any means faultless, has proved a first-rate stage and exhibition flower. Mr. Hoyle's *PRINCE OF ORANGE stands unrivalled for brightness of colour; and his *CHRISTABEL, CRISPINA, LORD STANLEY, LORD GOUGH, NANDEE, *NONSUCH (evidently only the precursor of the renowned OCCELLATUM), and *SATISFACTION are mostly beautiful productions, though, from some cause or other, they have not appeared on the exhibition tables. Mr. Gaines's ELECTRA, THE MOOR, *FLYING DUTCHMAN (of splendid form), PRINCESS HELENA, and GRENADIER, with Turner's ROWENA, Walton's ANTAGONIST, Stones's CORREGIO, Cock's SIKH, and Walker's PURITY, complete a list, of which it may be said nearly all have proved themselves to be good acquisitions. And here our progress must of necessity end. It would be premature to criticise AJAX, ALIBI, and a bright galaxy of as yet untried beautiful flowers, for sufficient time has not yet elapsed for them to have got into general cultivation; that they are worthy of being so is proved by their occupying such high places at the various exhibitions as seedlings; and when another season or two has passed away they may occasion another article to be written, perhaps from the hand by which these random recollections have been thus brought to a close. In writing adieu it is to be hoped that nothing has appeared to give offence to any parties; if errors or omissions have been committed, it has been simply in ignorance, and excuses are begged for them; and "ORION" here ventures to hope that this may not be the last time he shall have the pleasure of giving "the Progress of the Pelargonium."

(A history of this extensive and justly popular flower was very desirable; and our respected correspondent has our sincere thanks, and we think he is entitled, too, to the thanks of all admirers of Pelargoniums, for the faithful and interesting particulars which are contained in the papers which have been compiled; and we hope from year to year to be favoured by him with an annual continuation of "the Progress of the Pelargonium."—CONDUCTOR.)

ON CINERARIAS.

BY A LONDON AMATEUR GROWER.

I THINK this very extensive and lovely-blooming family of plants is not sufficiently brought before the readers of your Magazine, nor recommended as their merits entitle them to. I have grown a number of the best varieties, besides a great quantity of seedlings, my own raising, for several years; and not having seen any exhibited at the London shows so well grown as my own, I am induced to give you a few hints relative to cultivating them to satisfaction.

COMPOST.—Equal parts of good yellow loam, leaf-mould, and well-rotted manure, having a liberal drainage of broken pot, over which lay a few pieces of chopped turf.

SEEDLINGS.—Seed is generally to be had ripe *early* in the year, about May; sow a portion of it as soon as gathered, and the plants being potted off in large sixties, and then repotted, will bloom through winter. Sow another portion towards the end of July, pot the plants, too, into large sixties, and they will bloom from the beginning of April till midsummer. The best place to grow the stock in is a *dry* pit-frame. Though the Cineraria delights in warm *moist atmosphere* in its principal growing state, yet in winter, if *kept damp*, the leaves are very liable to rot at their stalks. If the pit has a fire-flue, or other means of warming, it is of advantage to dry up extra moisture, as well as protect in extreme frost from injury: the plants will not bear the least frost uninjured. Have the plants *near* to the glass, whether they be kept in a pit or greenhouse, and admit air when the weather is dry, in order to keep the plants robust and dwarf. They do not like a strong current of wind blowing against the leaves; they are easily broken by it. During spring cold easterly winds often prevail: do not allow them to blow *direct* against the plants; they suffer much when not so protected. A warm shower of rain is beneficial, and the lights may be taken off to admit it; or, whilst growing freely, syringe over head once a-day. Always repot when the one which the plant is in is full of roots. If allowed to be *pot-bound*, the plants soon become sickly and perish.

By having the stock in a pit-frame, a portion may be taken to bloom in a greenhouse, sitting-room, &c., successively. The early-raised plants may be brought into bloom by November, and the succession kept up till midsummer with perfect success.

To perpetuate fine varieties, they may readily be increased by suckers. As soon as the plants have done blooming, give them less water in proportion, or they will rot at the roots. Allow the main blooming stems to gradually die away; and as the leaves become withered, pinch them off. After blooming, take away a portion of the surface soil, two or more inches deep, and replace it with fresh compost, in order to encourage the growth of suckers. Plants that have done blooming, after the beginning of May, should be turned out of their pots entire into a prepared border, that is shaded from mid-day sun; here they soon begin to flourish, and produce suckers freely. By taking away the *strongest* suckers first to pot off, a succession will generally be produced, so that a prolonged season of having blooming plants from these may be obtained as easily as by seedlings.

The raising and proving of seedlings is a most interesting employment; they are easily raised, require but little attention, and *soon* display their flowers, not having to wait for a long period to ascertain the character of the plant. They bloom in profusion, are beautiful, and many of them diffuse a delightful perfume, most amply repaying for any attention, and are ornamental through the entire gloomy months of winter, either in the greenhouse or sitting-room; and having once obtained a few varieties of fine form and rich colours, a stock for a generation can be perpetuated by seed or suckers.

BRIEF REMARKS.

AUTUMNAL SCENES, BY CHARLOTTE.—Those who have looked upon the shadows of the trees as they are reflected upon the ground at this season of the year cannot fail at being struck by the beautiful forms which they present. Every twig and branch is as clearly made out as if drawn with a dark pencil upon white paper; there you see endless patterns for embroidery and netting, open work, square or diamond-shaped threads, that seem to run into squares and ovals, crossing and turning in every imaginable direction. In frosty weather, almost every object we look upon is beautifully marked; from the ragged flakes that hang upon the moss-covered boughs; the crimson berries, that seem encrusted with the whitest silver; the dark leaves of the evergreens, along which run pearly lines of frost-work; the bladed grass, spangled all over with minute pearls, down to the starry and diverging rays, which every little hollow that contained water has assumed—all are beautiful.

But pick up the skeleton of a leaf when only the minute fibres are left, hold it between your eye and the light, and you will confess that never did lady wear a lace collar, woven in the finest frame, of so fine and delicate a texture as the net-work of the fallen leaf; and the graceful Cup-moss, when closely examined, is shaped in the forms of the most delicate cups, and urns, and vases, pale and dark green, and chased with silver, and all as neatly wrought as if they had come from the hand of the most skilful artist.

Whilst there is much for the naturalist to admire in the beautiful appearance of the crystallization of hoar frost on the trees and shrubs, and if examined the crystal will be found different in form on every different tree or shrub, there are in our own "fair land" now-a-days more cheering scenes in "Nature's open vegetable field," to me far more pleasing than crystal frost and snow in all their forms of beauty.

At this gloomy season of the year all flowers are valuable and cheering, especially those growing in the open air. Last December the 10th the day was so beautiful that I could not resist the temptation of a ramble in a neighbouring wood, for there was a dryness about the fallen leaves such as I had but rarely seen in winter. Wandering onward I arrived at a little dell. One side was in shade; on the other the golden sunshine slept. Strange, there was also a rich yellow light on the shady side of the dell. On a nearer approach I saw hundreds of Primroses in full flower; pale and beautiful, there they stood, throwing a sweet fragrance all around. Such a discovery, a few days before Christmas, would have been a fortune to a London flower-seller; and had they been dug up by the roots, and offered for sale, a whole dell full might have been disposed of in one day. Here and there, on sunny banks, I saw a profusion of the lovely pale blue Violets; and in beauteous contrast a neighbouring hedge-bottom was adorned with the bright yellow Buttercup. A pretty grassy glade, too, was bespangled with the ever-admired Day's-eye, or Daisy, especially attracting my attention to infantile hours, when beads of such I had formed. On

either hand the Holly was displaying its rich green hue, and profusely adorned with their splendid scarlet and red berries, forming some of the brightest ornaments of the season. The Ivy, too, hung aloft in the richest green, bearing its thousand corymbose heads of flowers; while the Wild Rose-hips and haws, glittering like beads in thousands, highly gladdened the scene. The wood being part of a rich nobleman's domain, where pheasants in multitudes were preserved, and as these beautiful birds are fond of the fruit of the Snowberry, a vast number of clumps had been planted. Now, the bushes being five feet high, and in full bearing condition, the innumerable white berries, hanging like so many pearls, added beauty to the scene; and the rich colours of other adorned plants appeared more brilliant by closer contrast. By the sides of some walks which had been formed, and leading from the mansion, evergreen and other shrubs had here and there been planted for ornament. The surface soil being formed (I examined it) of loam, peat, and the decayed leaf-mould, it proved admirably adapted to the growth of those plants. Rhododendrons abounded in the hollows, and in summer must be gay indeed. Large plots, too, of the charming *Berberis aquifolia*, with its leaves of varied hues of colour, from the brightest shining green to the richest crimson, produced a striking effect; and whilst in spring the vast profusion of rich yellow blossoms must be gay beyond imagination, now the bushes are laden with its clusters of fine blue berries. As if to give in every movement a more enchanting view, a number of the very ornamental Spindle trees or bushes had been interspersed. There were three species now bowing their heads beneath the vast numbers of their pendulous fruit. The rich red exterior, in contrast with the fine orange-coloured berries, rendered them most charming objects. To change the scene, some *new species* of Thorns had been planted, and some were most admirably decorated with fine fruit. Those having yellow berries were situated to give greater contrast to the black and scarlet of others. Some had fruit as large as cherries, inviting both to sight and taste.*

In appropriate banks I observed the Mountain-ash branches bending with their large terminal heads of brilliant scarlet fruit. The Arbutuses were in bloom, and at the same time had a profusion of large fine fruit to additionally adorn them. The dry subsoil seemed to promote their fruit-bearing properties. The Lauristinus stood in the foremost rank, and its waxy-white heads of blossoms were in vast profusion. To afford a refuge for the game, large plots of the fruit-bearing Privet, clothed with paniced heads of its black berries, were not the least interesting objects; and a second source of shelter was supplied in the appropriate tracts of the pretty yellow-blossomed Furze, or Whin, a quantity of which was in bloom.

The nearer the mansion, the greater the variety of tree, shrub, and flower. My notes of all I admired are too lengthy for the present, and will be sent for another Number. I must, however, add, I was privileged to view the well-kept flower-gardens; and the grandest sight of

* The two best are *Cratægus aronia*, yellow-fruited, and *C. orientalis*, scarlet-fruited, very large and abundant.—CONDUCTOR.

my day's ramble was to behold a border, sixty odd yards long and two broad, filled with apparently every variety of beautiful Chrysanthemums. This finishing sight was a treat so unexpected and rich, that on reaching home and describing my treat, a friend, a celebrated florist, sat down and penned the following particulars on this tribe of flowers:—

China having poured her autumnal gifts so abundantly into our gardens, parterres, &c., the winter of *those places* is considerably shortened; and of all the floral beauties which that fertile country has afforded us, none has so much contributed towards enlivening the autumn season as the favourite flower of the Chinese Mandarins, the Chrysanthemum. The name is derived from the Greek *chrysos*, GOLD, and *anthos*, A FLOWER. This was given because the kind most familiar to the Greeks produced flowers of a golden colour.

The Chinese Chrysanthemum was first introduced into England in 1764, Miller having received it from Nimpu, and cultivated it in the Botanic Garden at Chelsea; but it was lost, and introduced again by Monsieur Blanchard, a merchant of Marseilles, who brought the well-remembered *purple* variety from China to France in 1789, from whence it was sent to England in 1795, and was then sold at a very high price by the London nurserymen, and introduced into the conservatories and greenhouses of the wealthy. It soon escaped, however, from such confinement; and long ago it had spread to every part of the island, ornamenting the casement of the cottager, as well as the establishments of the opulent, with its beauties.

The attention of nurserymen and florists on the continent has lately been particularly directed to raising new and improved varieties. Very great success has resulted, both in the large-flowered section and that of the Minima, or Pompones. Some of the latter section are very beautiful: fine plants, properly bloomed, have a most charming appearance, being like so many neat small Ranunculus blooms, or in other cases like the neatest double Daisies.—(*To be continued.*)

NEW DAHLIAS OF 1851, BY MR. GLENNY.—*Scarlet King*.—A full-sized bold symmetrical flower, well cupped. The centre tolerably well up, face good, and outline unexceptionable. As times go, decidedly an acquisition to the bright scarlet class.

Dr. Frampton.—A beautiful model of a flower, white ground, but edged deeply with resy purple; one of the very best forms we possess, as good as the Dahlia King, and without its fault of reflexing. Under medium size as grown near London.

Sir F. Thesiger.—A lovely rose, of fine form, beautiful outline, and good face; shown variously, and sometimes indifferent, but on some occasions unexceptionable: it is not the colour of our other roses, but richer, and a medium size.

Bob.—A scarlet of abundant stuff, good outline, and symmetrical; centre very solid, but a little sunk. A flower to all appearance desirable among the dense red.

Sir Richard Whittington.—A remarkable colour, clarety purple; a fine model, but rather coarse in the petals; centre better than the average, and outline good. For a new colour, as well as a better than average shape, desirable.

Ariel.—White, as shown; general average of qualities respectable, but nothing extraordinary. If constant, it will be very useful, as we last year said of the Queen of the West, which, however, has so far proved quite the reverse, though we shall not give it up.

Una.—Also a white; but will, as generally grown, be, we think, loose, though it is scarcely fair to speak of a thing seen only once.

Laura Lavington.—A new coloured fancy, dull bronzy salmon or fawn colour, tipped with white. Perfectly new, and better than average form among the fancies.

Triumphant.—The only fancy we have seen that will do to show as a self. It is a bold crimson scarlet, showing the backs of the petals a good deal, but comes up tolerably well; as a tipped flower it tops all the fancies, and it has been shown three tipped. and three self in the seedling stand.

Annie Salter.—A perfectly novel fancy variety, white in the centre, pinky lilac towards the side, and tipped rose.

Kossuth.—Fancy red and white, fuller than the average, and likely to be useful as an improvement.

Miss Ward.—Not a beat on Mrs. Hansard, but of a similar colour, and occasionally quite equal.

Miss Wentworth.—A light flower, with a tip that shades off inwards to a white. The only time we saw it the specimens were quite up to any of the cupped light flowers, the outline good, and the face bold; eye better than average.

Morning Star.—Brilliant orange-scarlet; is an acquisition for its colour, though no advance in form.

Louisa Glenny, yellow; *Robert Montgomery*, dark crimson; *Rose of England*, very bright pink; we have only seen the single blooms of: so far as these went they are very promising.

These are all we can say anything about, out of very nearly six hundred varieties we saw during the season.

CANDLE TREE OF PANAMA.—A production, less beautiful but equally singular, is the Palo de Velas, or Candle Tree (*Parmentiera cereifera*, Seem.) This tree is confined to the valley of the Chagres, where it forms entire forests. In entering them, a person might almost fancy himself transported into a chandler's shop. From all the stems and lower branches hang long cylindrical fruits, of a yellow wax colour, so much resembling a candle as to have given rise to the popular appellation. The fruit is generally from two to three, but not unfrequently four, feet long, and an inch in diameter. The tree itself is about twenty-four feet high, with opposite trifoliated leaves, and large white blossoms, which appear throughout the year, but are in greatest abundance during the rainy season. The Palo de Velas belongs to the natural order Crescentiaceæ, and is a *Parmentiera*, of which genus, hitherto, only one species, the *P. edulis*, De Cand., was known to exist. The fruit of the latter, called Quauhxilote, is eaten by the Mexicans; while that of the former serves for food to numerous herds of cattle. Bulls especially, if fed with the fruit of this tree, Guinea Grass, and Batatilla (*Ipomoea brachypoda*, Bent.) soon get fat. It is generally admitted, however, that the meat partakes in some degree of the pecu-

liar apple-like smell of the fruit ; but this is by no means disagreeable, and easily prevented, if, for a few days previous to the killing of the animal, the food is changed. The tree produces its principal harvest during the dry season, when all the herbaceous vegetation is burned up ; and on that account its cultivation in tropical countries is especially to be recommended : a few acres of it would effectually prevent that want of fodder which is always most severely felt after the periodical rains have ceased.—*Hooker's Journal of Botany.*

HOLLYHOCKS.—Now is the best time to plant these noble flowering ornaments, in order to bloom satisfactory the next season. A selection ought to be grown in every garden. The improvement in form and size within the last few years has been great. The properties of thick petals, with even (not notched) edges is now considered essential to a good flower. The centre florets should be compact, rise and extend so as to form half a globe, and the outer petals to form a complete circle, and not to extend more than half an inch beyond the rising centre. The following varieties are considered the best :—Model of Perfection, chocolate and white ; Queen, blush ; Coccinea, rich red ; Enchantress, deep pink ; Pulchella, light rose ; Rosea grandiflora, rosy-pink ; Mr. Charles Baron, pink and salmon ; Obscura, mottled grey and purple ; Fireball, light red ; Magnum Bonum, dark maroon ; Aurantia, orange and red ; Bicolor, purple and white ; Purpurea Elegans, rich purple ; Sulphurea Perfecta, pure ; Comet, ruby red ; Attraction, veined chocolate and white ; Delicata, French white ; and Walden Gem, a rosy ruby-red.

MISCELLANEOUS SECTION.

REVIEW.—*A Treatise on the Cultivation of the Chrysanthemum.* By William Ivory, Gardener to the Rev. George Chetwode, Chilton House, Thame, Oxon.

WITHIN the last four years there has been a surprising improvement in the culture of this charming tribe of flowers. The blossoms are produced now nearly double the size of what we had previously seen. In confirmation of the vast improvement, those of our readers who have attended the exhibitions at Stoke Newington and Highgate, near London, have had ample evidence in the splendid specimens shown. The author of the treatise we now notice is an equally successful cultivator : on plants about two feet high he has as many as a dozen flowers ; and of the larger-growing class some of the blossoms are nearly a span across. And of the compact growing varieties they are like the best double Dahlia blossoms, both for size and perfection. Mr. Ivory's success has been so remarkable, that he has been induced to publish his mode of treatment in a neat pamphlet. The following extracts will give our readers some idea of its excellence ; and we beg to assure them that every lover of this tribe of flowers will be amply recompensed by a perusal of the work. Mr. Ivory merits that encouragement, and we trust he will receive it. Speaking of "blindness," he says :—

"It is of the utmost importance to have the cuttings of a moderate growth and size, not the coarse flabby-leaved ones, similar to those pro-

duced from deep suckers ; but such as are produced from the old stems just beneath the surface, which are firmer in their texture, and strike more freely. Indeed it is of the greatest moment to secure this condition, for success depends more upon securing plants of uniform growth, and so preventing their going what is called 'blind,' than upon anything else, as I have many times proved. Last season was a noted one with growers, inasmuch as great numbers of plants went blind. Some attributed the defect to one cause, and some to another ; but I am satisfied that selecting improper cuttings has more to do with it than any other."

The soil he uses for the first potting is equal parts of loam and leaf-mould, with a little sand. In potting for the last time in the middle of July he uses eight-inch pots for blooming them in, with soil of three parts loam and one part rotten dung, placing only one piece of crock at the bottom of the pot for drainage. After the plants are stopped and the pots filled with roots, so soon as the side shoots are two or three joints in length, he gives them, for the first time, some weak liquid manure, prepared by mixing either a bushel of sheep droppings or soot in a large tub of water, which must be well stirred up, and then allowed to settle ; he then well dilutes it again with soft water before using it, which is two or three times a-week, but not oftener. In thinning the plants he says :—

" So soon as the side shoots are three or four joints long, look them over and reduce them to the number required. Such kinds as Annie Salter, Queen of Yellows, Defiance, L'Ange Gardien, and all with similar free habits, I allow from twelve to eighteen shoots ; if very fine blooms are required, thin them out to twelve ; if a larger number are desirable, they will carry eighteen, but which, of course, will be smaller. These plants look very beautiful when properly sticked out ; such kinds as the Duke, Clustered Yellow, Queen of the Gipsies, Formosum, and Nonpareil, from ten to twelve blooms.

" It should here be observed, with regard to those late kinds, the cuttings of which were directed to be put in by the third week in May, are also to be potted and stopped each time in advance of the early sorts, as the shoots require longer to mature themselves. In thinning out the shoots, leave them equally distributed, so as to form a handsome uniform plant ; if succours appear from the bottom, stop them just above the soil, as they may be useful after a time, in case a few of the bottom leaves go off. The Queen of Yellows is liable, after stopping, to produce two or three very strong shoots from the top, and grow quite away from the lower ones : these strong shoots must be removed as soon as they appear ; if not, they will spoil the plants quite. I recommend to grow several plants of Vesta, Pilot, Nonpareil, and the Bride, where convenient, they being four of the finest ever raised, are distinct colours, and of good habit."

Treatment of the Plants after Housed.—" At this time, in most gardens there are empty cucumber and melon pits, or vineries ; now in those pits where a moderate bottom-heat (from 65° to 70°) can be secured, is just the place for them, to be plunged to half the depth of the pots, which heat is to be maintained until the buds begin to expand, or until the first week in November. The effects of the pots being full

of firm sound roots, the bottom-heat and dry air will soon be perceptible. Before plunging the plants, let the surface of the soil become quite dry, so that if bad weather sets in, the foliage will not be choked with damp, nor will mildew attack them, which is sure to be the case when surrounded by stagnant moist air. In watering the plants after plunging, be careful not to wet the surface of the soil in which they are plunged: I have proved the importance of attending to this. Give plenty of air day and night, only exclude from frost and rain both the foliage and buds, the last named in particular, for if wetted now they are apt to be one-sided. In plunging, give plenty of room; and if in pits, have the lights off as much as possible. At all times endeavour to secure a circulation of air; if this is not done, the foliage cannot prepare food for the bud, the footstalk becomes weak and lank, and the leaf turns yellow. Where bottom-heat cannot be secured, set the plants out thinly in houses, and by all means keep the air dry and moving, watering the roots at all times with water at from 65° to 70° , which will in some measure answer the purpose. Without bottom-heat I have never been able to produce blooms anything like in point of size and form as with it. Those kinds which come semi-double in a usual way, will come perfectly double under this treatment; indeed, in all kinds it forces the centre out, so as to form a perfect flower, approaching in size and form a first-rate Dahlia. When the plants are plunged, lift them up now and then, as, if they root through the bottom, those roots in the pots will become inactive and die. As the centre of the blooms begin to come up, withdraw them from the heat gradually, and stick them according to taste. Many kinds are better left as they grow, unless intended for exhibition, when they must be secured to prevent bruising; but plants grown in this way, in a few weeks (the shoots being of equal strength, able to support themselves, clothed with foliage to the bottom, and eighteen or twenty inches in height), are very different to manage, and move from place to place, to the naked lank things too often seen. If, in any stage of growth, mildew attack them, which is generally on the under side of the leaf, fill a common dredging-box with flower of sulphur, turn the plant upside down, then dredge it, and let it remain on; it will prove a safe and sure stop to its ravages, which, if neglected and allowed to spread, will certainly spoil the foliage. When the blooms are fully expanded (which they will be after the middle of November), keep the roots rather drier than usual, watering them in the morning; by this treatment the blooms will remain perfect for five or six weeks. I have had some kinds quite fresh up to the beginning of January."

Summary.—"Put in the cuttings from the middle of May to the middle of June, have all potted-off by the middle of July, have them all placed in the blooming pots by the first week in August, and all stopped within the first ten days of August; let all the plants be plunged into bottom-heat (where convenient), and protected from wet and cold, by the middle of October, and if all goes on well, they will be in bloom by the middle of November; so that the whole time occupied, from commencing with the cuttings to the time of their being in full bloom, is about twenty weeks."



IN THE FLOWER GARDEN.

THE Chrysanthemum is the most valuable plant we have for autumn decoration, either for the greenhouse or the flower-garden; it fills up a blank that no other plant we have could do. It supplies a profusion of beauty of almost every colour. It has become a desideratum in all well-managed flower-gardens, having the facility to plant a proper proportion of the most showy kinds, which ornament them, when the season keeps open, up to December. This autumn they are injured somewhat earlier than usual. In order to have the flower-garden lively as possible, the succession to Chrysanthemums must be made up with evergreen shrubs; it is readily done at a trifling cost by plunging in potted plants of Lauristinus, Aucuba, myrtle-leaved, broad-leaved, and variegated Box; gold and silver-striped, green-leaved, yellow and crimson-berried Hollies; Arbutus, Rhododendron, Mahonia aquifolia, Phillyrea, Arbor vitæ, Bay, Kalmia latifolia, dwarf Laurels, Daphne pontica, Cedars, &c. A garden thus furnished produces a very cheering appearance; and those who have not seen one so ornamented cannot adequately conceive of its beauty and finished neatness. This attention most amply repays for the small expense, producing a lively appearance, instead of having bare beds for several months. If any Tulip-bulbs be still out of ground, plant them as early as possible.

There are a number of very handsome single and double varieties of Anemones, which are highly ornamental to a flower-garden, whether in patches in the beds, or as an edging. To bloom well next season they must be planted immediately.

The *Gentiana acaulis* is a most charming spring flower, suited admirably for edging or patches. Its intense blue flowers, in contrast with Anemones, Hepaticas, and similar early-blooming plants, is very striking. Attention will be necessary to protect the tender kinds of herbaceous by a layer of dry leaves, pots, boughs or branches of evergreens, &c., also the stems of tender climbing and other Roses, by tying a covering of furze over them, that, whilst it fully protects, admits sufficiency of air for the well-being of the plant.

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 to stakes, so that they are not loosened by the wind. Pots of Carnations and Picotees should be placed in a situation where they may have free air, and be raised above the ground. If they are under glass, 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-weeks' Stocks and Mignonette, in pots for blooming early next spring, to adorn a room or greenhouse, must not be over-watered, and be kept 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. During hard frosts, if additional soil be required for flower-beds upon grass lawns, advantage should be taken to have it conveyed at the time, so that the turf may not be injured by wheeling. Pits or beds for forcing Roses, &c., should be prepared early in the month. Tan or leaves are most suitable, unless there be the advantage of hot water or steam. New-planted shrubs of the tender kinds should have their roots protected by laying some mulch. Suckers of Roses, &c., should now be taken off and re-planted for making bushes, or put in nursery rows. Soils for compost should now be obtained. Beds of Hyacinths, Tulips, &c., should have occasional protection. Any roots not planted may successfully be done, in dry mild weather, till February. Sweet Violets: plant these little gems as much as possible along the sides of walks, near seats, rooms, banks, under trees, &c.; they are so highly fragrant as always to be acceptable, and more especially being early spring flowers. Encourage all the spring ornaments as much as possible: Crocusses are pretty flowers, always gay in sunshine, and give a peculiar cheerfulness to every place they occupy; never be sparing in quantity of them near a dwelling-house. Do not omit the first flower that awakes thee from the repose of winter,

“A flower that first in this sweet garden smil'd,
To virgins sacred, and the SNOWDROP styl'd.”

IN THE STOVE.

Aconites, Crocuses, Violets, Mignonette, Stocks, Tulips, Cyclamens, Narcissus, Lilies of the Valley, Hepaticas, Primroses, China Primroses, Persian Irises, Cupheas, Hyacinths, Pinks, Carnations, Tree Carnations, Heliotropes, Scarlet Geraniums, Salvias, Gardenias, Roses, Azaleas, Cinerarias, Jasmynes, Honeysuckles, Deutzias, Rhododendrons, Persian Lilacs, Rhodoras, Ribes, Mezereums, Correas, &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, Narcissus, Persian Irises, Crocuses, &c., should occasionally be introduced, so as to have a succession of bloom. Many persons who take a delight in growing Hyacinths or other bulbous plants, for adorning a room or window, in winter or early in spring, have been frequently disappointed by the abortiveness of some and weakness of others. This principally arises from the inability of the plant to develop itself with a rapidity equal to the quantity of moisture it imbibes, on account of its upper surface being acted upon too immediately by the atmosphere; hence arises the necessity of covering the bulb. That such is a fact is evidenced by the admirable and certain success of nearly every bulb, especially Hyacinths, that is covered with about six inches of old spent bark or ashes. This

or some similar light material should always be used. Even bulbs intended to bloom in glasses we prefer starting in the cold bark, and then transferring them to the glasses when the roots are about two inches long. Where such covering is not adopted, the pots or glasses should be kept in a dark place till the roots are two or three inches long, and then bring them to the light. Always use water for the glasses that is just aired; cold water gives a check which greatly injures the roots, and consequently the bloom. 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. The old *Eranthemum pulchellum*, with its fine blue flowers, *Justicia speciosa*, *Gesneriæ zebrina*, *Justicia pulcherrima*, *Aphelandria cristata*, *Poinsettia pulcherima*, *Cestrum aurantiacum*, and *Begonia fuchsoides*, are fine winter ornamental blooming plants.

IN THE GREENHOUSE.

As much fire as will barely keep out frost will only 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 by frost. The plants must not be watered overhead. 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 and weakening the flower. If the flower-buds are thinned out freely, it conduces to the increased size of those left. 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: give manure-water occasionally. If the plant is allowed to wither, it checks the flower, whether in bud or expanded. 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. If seed be desired, retain the blooming stems on the plants, and keep them for some time in an airy warm situation to perfect.

Dahlia seed is 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 seed will not shrivel, but be kept plump. The roots must be dried well before being put away, or will be liable to rot. *Fuchsias* and greenhouse plants, intended to be inured to the open air, will require to have protection at the roots, and probably, for the first winter, over the tops too, by furze branches, canvas, wicker baskets, mats, &c. 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. Be careful to protect beds of what are technically called "florists' flowers," should severe weather occur. Cal-

ceolarias that were cut down and re-potted last month will require attention, not to water too much, or they will damp off. Keep them in a cool situation. Whilst in a cool and moist atmosphere, the shoots will often push at the underside numerous rootlets. Where such are produced, the roots should be taken off and potted; they make fine plants for next season, and are more easily propagated now than at any other season. Pelargonium plants for exhibition should be re-potted by the middle of this month; according to the size of the plants must be the pots. The smallest-sized pots in which plants are to be when shown are the 24's, eight inches in diameter, and the largest-sized are eleven inches in diameter. The plants need not be potted into these sizes now, but a size less, and in February be re-potted into their final pots. The plants must not be crowded together, but be kept apart. Cinerarias are often attacked at this season by the green fly; let the plants be placed in a hot-bed frame, and be fumigated with tobacco-smoke at the first appearance of the insects.

TRAINING PELARGONIUMS TO FORM DWARF BUSHY PLANTS.

MANY readers of this Magazine have, doubtless, been struck with the *dwarf bushy* character of the Pelargoniums that have been exhibited at the London shows for the last three seasons, for previously, even at these shows, the plants were grown lanky and too tall; but recently there has been a most marked improvement, both in the general class, as well as the fancy one. Of course to bring the plants into the shape they have, the cultivator has to pay some regular attention, so that each shoot may occupy the best position, and *every* shoot to have its truss of flowers. The plants may be brought into the desired form by pursuing the following method of treatment:—

Commencing at an early stage of their growth, the young shoots are carefully bent down, at proper distances from each other, and secured at their desired position by hooked pegs, from the hedges, &c., or formed of copper wire. If there is danger of breaking the shoots, by bringing them at once as low as may be requisite, viz., the bottom tier nearly to the rim of the pot, &c., lower the pegs at two or three times, till the proper shape is obtained. When the shoots extend beyond the sides of the pot, then a rim of wire being secured close under the edge of the pot, the shoots can be secured to it, be properly arranged, and they will soon assume a permanent position and form. When the plants are to be taken to the show, the scaffolding must be taken away, and they must appear *without artificial* assistance.

This mode of management should commence in spring, with the plants which were struck the previous summer: and when such have bloomed one season, being pruned in, and push for a second year's bloom, they will then form the larger blooming specimens for showing. It is not usual to keep three years' old plants of the general class of Pelargoniums, but after blooming a second season they are thrown away. The fancy class do not grow so vigorous, and the plants can be bloomed satisfactory for showing for four or more successive seasons. Sometimes branches are liable to split at *the fork*, therefore before attempting to depress them, secure the two together just above their junction.

INDEX.

ILLUSTRATIONS.

	Page		Page
Berberis Darwinii	217	Fuchsia, globosa magnifica	265
Cantua dependens	121	Prince Arthur	265
Chrysanthemum minimum Anais	97	Gloxinia, Dr. Lindley	289
Bouton d'Argent	97	Mr. Hoogeveen	289
Cameleon	97	Marie Van Houtte	289
Croustignac	97	Hoya purpurea-fusca	49
Cybele	97	Pelargonium roseum striatum	194
Eliza	97	Penstemon cyananthus	241
Gil Blas	97	Wrightii	241
La Gitani	97	Pharbitis limbatus	73
Madame Lemichez	97	Ranunculus, admittus	145
Piccinino	97	Beauty of Fulham	145
Roi de Lilliput	97	Rose, Narcisse de Salvandy	49
Daisies, six new double	1	Tacsonia manicata	73
Dipteracanthus spectabilis	25	Tulip, Dr. Horner	290
Escallonia macrautha	217		

ORIGINAL AND MISCELLANEOUS.

Acacias, culture of	222	Chinese Primrose, remarks on, 112, 258	
remarks on	134	Chrysanthemum Indicum, on the 82, 112	
Allamandas, remarks on	276	Society, Stoke New-	
Amaryllis, culture of	42	ington	170
Anemones, remarks on	285	Chrysanthemums, on the cultiva-	
Asters, China, German and Turkey,		tion of	313
remarks on	37, 136	on the French	
Auriculas, new seedling	178	Daisy	79
Autumnal Scenes	309	Cinerarias, remarks on	66, 132, 307
Balsams, culture of	132	Coronilla glauca, on the	135
Bedding Plants, remarks on	90	Crassula coccinea and versicolor, on 169	
Botanic Society, seedling flowers at 175		Crocus, remarks on the	106
Bulb Garden, remarks on	109	Cuttings, to strike in clay	275
Calceolarias, form of the	230	Cycas revoluta, remarks on	129
culture of	45	Daisies, remarks on	1
shrubby, propagation		Dahlias, new, of 1850	311
of	248	Diagrams of flowers, remarks on 76, 180	
Camellia reticulata, on	39	Dielytra spectabilis, on the	83
Camellias, remarks on	60, 65	Dipteracanthus spectabilis, remarks	
Campanula pyramidalis, on	62	on	25
Candle Tree of Panama	312	Epiphyllum truncatum, remarks on 66	
Cantua dependens, remarks on	281	Eriothryna Crista galli, on the	179
Cantuas, notice of	171	Euphorbia jacquiniiflora, remarks on 44	
Capsicum fumigating, on	129	Evergreens, to transplant	277
Carnations, on diagrams of	76, 180	Exhibitions, floral, 68, 107, 116, 138,	
on the running of	131	142, 154, 165, 167, 169, 204, 206,	
and Picotees, a list of	288	213, 234, 251, 252, 253, 255, 279	
on	132	Tulip, 138, 172, 185, 204,	
Ceanothuses, notice of	180	233	
Cereus grandiflora, remarks on	179	Fleming's salting machine	258
Charcoal peat, on	134	Floriculture, on the prospects of	31

	Page
Florists of St. Petersburg, on the . . .	136
Flower, a good yellow for bedding . . .	132
—— Gardens, watering . . .	230
—— winter decoration of . . .	17
Flowers, artificial, on . . .	208
—— on drying . . .	202, 240
—— on seedling . . .	276
—— on the love of . . .	208
—— to preserve in bloom . . .	56
—— wax, noticed . . .	175
Forcing house, on heating . . .	135
Franciscea eximia, culture of . . .	127
Fuchsia serratifolia, remarks on . . .	96
Gardens, reminiscences of . . .	33
Gesnerias, remarks on . . .	86
Gladiolus, on hybridizing . . .	18
—— list of . . .	257
Globe amaranthus, on the . . .	113
Gloxinias, remarks on . . .	86
Glycine sinensis, remarks on . . .	172
Greenhouse, on a model of . . .	111
Greenhouses, on heating . . .	280
Heaths, Cape, remarks on . . .	20
—— on propagating . . .	80, 88
Heating, remarks on . . .	65
Heliotropes, on spotted leaves . . .	261
Highbury and North London Horticultural Society, remarks on . . .	89
Hollyhock, the culture of . . .	16
Hollyhocks, remarks on . . .	288, 313
Horticultural Society, Staines, remarks on . . .	207
—— Schedule of, remarks on . . .	87
Horticultural Society's Meetings, rules for . . .	232
Hyacinth, the . . .	299
—— on blooming . . .	89
Hydrangæas, on blue-flowered . . .	87
Ipomæa Horsfalliæ, on the . . .	89
Ipswich, Arboretum of, noticed . . .	174
Institutions, floral, of London . . .	177
Iris Susiana, remarks on . . .	169
Iron trellis, on a . . .	40
Ixoras, culture of . . .	173
Jasmine, Cape, on the . . .	285
Jasminum nudiflorum, on . . .	88
Landscape Gardening, on . . .	41
Leonotis Leonurus, remarks on . . .	262
Madrid, Botanic Gardens of . . .	182
Manures, remarks on . . .	228
Mignonette, remarks on . . .	112
Moss on lawns, remarks on . . .	114
Narcissus, seedling, on raising . . .	176
Neapolitan Violet, on the . . .	103
Nelumbiums, culture of . . .	93
Nemophila maculata, remarks on . . .	179
Nymphæa cærulea, remarks on . . .	91
Orange trees, compost for . . .	42
Orchids, baskets for . . .	212
Oxalis Bowcii, remarks on . . .	65

	Page
Pæonies, herbaceous, on the propagation of . . .	62
—— on the propagation of Moutan . . .	30
—— Tree, remarks on . . .	67
Panama, Candle Tree of . . .	312
Pansies, remarks on . . .	117
—— striped, on . . .	276
Pelargonium, progress of the, 125, 147, 199, 220, 246, 273, 304	
Pelargoniums, for training . . .	249
—— leaves spotting of . . .	203
—— Mr. Hoyle's seedling . . .	192
—— on fancy . . .	113
—— on new and first rate . . .	35
—— on new fancy . . .	48
—— on training, to form dwarf bushy plants . . .	319
Perennials, propagation of . . .	175
"Phyto-Theology," review . . .	283
Picotee seeds, remarks on . . .	207
Pimelia decussata, on . . .	112, 114
Pinetums, remarks on . . .	12
Pinks, on dwarf . . .	39
—— remarks on . . .	24
Plants, a compound to promote the growth of . . .	125
—— at Messrs. Veitch's Nursery . . .	246
—— in bloom at the Royal Gardens at Kew, 8, 54, 100, 197, 234, 269	
—— in Wardian Cases, management of . . .	272
—— in pots, on watering . . .	91, 214
—— on potting . . .	88, 135
—— suitable for a winter garden . . .	15
Poinsettia pulcherrima, on . . .	64, 92
Polyanthuses, new seedling . . .	178
Ranunculuses, a descriptive list of new . . .	9
Rats, remarks on . . .	39
Rhododendron arboreum, remarks on . . .	174
Rhododendrons and Azaleas, Mr. Warterer's . . .	176
—— of Sikkim Himalaya, on the . . .	130
—— on hybrid . . .	38
Rockets, remarks on . . .	133, 212
Rockwork, artificial, remarks on . . .	261
Rose, Cloth of Gold, on the . . .	88, 259
—— Ma-an-ga, on the . . .	67
"Roses in pots," review . . .	281
Roses, Banksian, on . . .	203
—— culture of . . .	61
—— descriptive characters of . . .	18
—— for exhibition, remarks on . . .	105
—— indigenous to America . . .	150
—— in pots, culture of . . .	43
—— moss, origin of . . .	188
—— on Ayrshire . . .	43

	Page		Page
Roses, on new and superb	40	Tulips, newly broken	178
— on summer pruning	201	— remarks on	290
— on watering	170	Tussilago fragrans	231
— perpetual, on a bed of	37	“Tyso, on the Anemone,” review	72
— propagation of	134	Valencia, Botanic Gardens of	182
— remarks on	207	Venus Fly-trap, treatment of	129
— Tea, remarks on	129	Verbena, remarks on the	28
— to destroy the fly on	42	Victoria Regia, on the, 92, 170, 212, 264	264
Salvia patens, and patens alba, on	170	Vienna, Botanic Gardens of	275
Sap, theory on the descent of	278	Viola pallida plena, on	103
Spring flowers, “The Anemone”	58	Wardian Cases, remarks on	259
Stephanotus floribundus, on the	42	Water Lilies, remarks on	13
Stoves, atmosphere of	224	— Plants, house for	210
Tecoma Jasminoides, on	259	Weeds on walks, destroying	232
Tbunbergia alata, and its varieties	133	— prevention of, on walks	281
Trees, on new	209	Weigelia rosea, remarks on	120
Tropæolum pentaphyllum, on	69	Wireworm, to destroy	258, 275
Tuberoses, culture of	171	Wood, theory on the formation of	28
Tulips of 1850, on the	40	Yeast as a mauure	231
— on judging	84		

NEW OR RARE PLANTS NOTICED.

Abelia rupestris	294	Berberis umbellata	218
Acacia bombycina	242	Bertolinia maculata	4
— deffusa	121	Bilbergia Morelliana	51
— dentifora	298	Bossiaea virgata	297
— grandis	193	Bouvardia leiantha	98
— hispidissima	193	Broughtonia lilacina	194
— leptoreura	298	Browallia Jamesonii	266
— lineata	298	Brownæa ariza	266
— ovata	298	Burlingtonia pubescens	5
— oxycedrus	121	Calceolaria alba	242
— præmorsa	298	— cuneiformis	25
— Riceana	121	— Harlequin	242
— rotundifolia	298	— sulphurea splendens	242
— trinervata	298	— vivid	242
— urophylla	97	Campanula colorata	26
— vestita	298	— pumila plena	242
Achimenes Baumanni	4	— Vidalii	98
— Bodneri	4	Camptosema rubicundum	266
Aconitum sinensis	50	Cantua buxifolia	194
Adenostoma fasciculata	50	— dependens	121
Æsculus Hippocastinum flore pleno	217	Capsicum cereolum	294
Allamanda nerifolia	218	Cathcartia villosa	218
Amherstia nobilis	50	Cattleya pallida	145
Aphelandra cristata	242	Ceanothus cuneatus	243
Aponogete distachyon	122	Centrosolenia glabra	5
Aracacia Cookii	294	— picta	295
Arbutus mollis	218	Cestrum calycinum	5
Arides roseum	266	Chrysanthemum indicum minimum	97
Aster Sikkimensis	25	Chrysobactron Hookeri	243
Azalea indica, var. myrtifolia	269	Chysis azurea, var. maculata	98
— squamata	269	Clematis azurea gigantea Luloni	219
— phænicea	269	Collinsia multicolor	243
— vittata	122	Consolida Aconitii	26
Banksia occidentalis	51	Cotoneaster thymifolia	295
Barbacenia Rogieri	4	Cyclamen macropus	5
Bellis perennis	1	Cypridium guttatum	51
Berberis Darwinii	194, 217	Dahlias, new seedling	260
— pallida	122	Daphne Houtteana	26

	Page		Page
<i>Daphne purpurea</i>	122	<i>Galeandra Devoniana</i>	267
<i>Delphinium Wheelerii</i>	267	<i>Geranium Thunbergii</i>	52
<i>Dendrobium albosanguineum</i>	243	<i>Gillies Poiniana</i>	5
<i>clavatum</i>	243	<i>Gladiolus Gandavensis</i> , var. <i>citrinus</i>	
<i>Gibsoni</i>	295	<i>Natalensis</i> , var. <i>Oldford-</i>	
<i>Didymocarpus crinita</i>	26	<i>iensis</i>	6
<i>Dipteracanthus spectabilis</i>	25	<i>purea</i>	6
<i>Dombeya mollis</i>	122	<i>Gloxinia Petoiana</i>	195
<i>viburnifolia</i>	74	<i>Gramanantes chloræflora</i>	267
<i>Deutzia gracilis</i>	74	<i>Grevillea lavendulacea</i>	244
<i>Echinocactus streptocaulon</i>	51	<i>Gynerium argenteum</i>	27
<i>Visnaga</i>	26	<i>Hebeclinium ianthinum</i>	98
<i>Echinopsis campylacantha</i>	74	<i>Helcia sanguinolenta</i>	244
<i>Epacris alba compacta</i>	297	<i>Heliotrope</i> , <i>Immortalite de Marie</i>	
<i>albida compacta</i>	297	<i>Louise</i>	123
<i>campanulata rubra</i>	297	<i>Peruvianum</i> , var. <i>Gem</i>	52
<i>rosea</i>	297	<i>Helleborus atro-rubens</i>	123
<i>conspicua</i>	194	<i>Hemiandra pungens</i>	98
<i>hyacinthifolia</i>	297	<i>Holbolia acuminata</i>	123
<i>candidissima</i>	195	<i>Hoya campanulata</i>	50
<i>impressa</i>	297	<i>Cunningiana</i>	268
<i>Kinghornii</i>	195	<i>ovalifolia</i>	50
<i>limatus</i>	297	<i>pallida</i>	50
<i>miniata</i>	297	<i>purpurea-fusca</i>	49
<i>nivea</i>	297	<i>Hydromestus maculatus</i>	27
<i>onosmaflora</i>	297	<i>Ipomæa oblongata</i>	268
<i>obtusifolia</i>	297	<i>Ixora Javanica</i>	146
<i>sanguinea</i>	297	<i>Jonesia Asoca</i>	27
<i>Epidendrum longipetalum</i>	5	<i>Labichea diversifolia</i>	219
<i>verrucosum</i>	267	<i>Lapageria rosea</i>	295
<i>Episcia bicolor</i>	146	<i>Lencothoe nerifolia</i>	219
<i>Erica Lecana</i> , var. <i>viridis</i>	146	<i>Ligustrum Japonicum</i>	268
<i>caffra</i>	298	<i>Lilium Loddigesianum</i>	268
<i>mammosa</i>	298	<i>sinicum</i>	268
<i>Ericas</i> , <i>Turnbull's hybrids</i>	51	<i>Wallichianum</i>	52
<i>Erysimum Arkansanum</i>	243	<i>Lonicera tartarica</i> , var. <i>Punicea</i>	27
<i>Escallonia Macrantha</i>	217	<i>Lysamichia candida</i>	244
<i>Enkyanthus reticulatus</i>	269	<i>Medinilla Javanensis</i>	74
<i>Euphorbia Jacquiniiflora</i>	298	<i>Mimosa uruguensis</i>	295
<i>grandiflora rubra</i>	195	<i>Minima chrysanthemums</i>	299
<i>Fitz Roya Patagonica</i>	205	<i>Monarda albiflora</i>	6
<i>Forsythia viridissima</i>	146	<i>amplexicaulis</i>	6
<i>Franciscea calycina</i>	146	<i>contorta</i>	6
<i>confertiflora</i>	98	<i>Mormodes atro-purpurea</i>	123
<i>Fuchsia</i> , <i>Clapton Hero</i>	244	<i>Myrtus orbiculata</i>	27
<i>Expansion</i>	243	<i>Narcissi</i> , new seedling	147, 268
<i>Globosa-magnifica</i>	243, 265	<i>Nymphæ elegans</i>	244
<i>Great Western</i>	267	<i>rubra</i>	195
<i>Ignea</i>	267	<i>Oncidium luridum atratum</i>	52
<i>Madame Sontag</i>	244	<i>variegatum</i>	27
<i>Mazeppa</i>	244	<i>Oxyspora vigans</i>	6
<i>Multiplex</i>	267	<i>Pachira longiflora</i>	7
<i>Prince Arthur</i>	265	<i>Pæonia Moutan atrosanguinea</i>	27
<i>Resplendent</i>	244	<i>Passiflora medusæa</i>	7
<i>Serratifolia multiflora</i>	267	<i>penduliflora</i>	75
<i>Sidonia</i>	244	<i>Pedicularis mollis</i>	244
<i>Splendida</i>	267	<i>Pelargonium</i> , <i>Beauty of the Parterre</i>	195
<i>Unique</i>	267	<i>Bridal Bouquet</i>	195
<i>Voltigeur</i>	244	<i>Commander-in-Chief</i>	196
<i>Fuchsias</i> , new vars.	74	<i>Conderti</i>	219
<i>Gaillardia picta tricolor</i>	244		

	Page		Page
Pelargonium, Golden admiration	195	Primula capitata	7
——— Grace Darling	268	——— involucrata	296
——— Judy	196	——— Sikkimensis	220
——— lilac unique	196	Pultenæa ericoides	146
——— Mountain of light	245	Pyxidantha barbulata	196
——— peach blossom	196	Ranunculus, Admittus	145
——— Princess Alice	196	——— Beauty of Fulham	145
——— Royal	196	——— new varieties of	9
——— Punch	195	——— spicatus	147
——— purple standard	268	Rhipsalis pachypra	7
——— roseum striatum	193	Rhododendron Championæ	269
——— scarlet defiance	196	——— cinnamomeum Cun-	
——— Shylock	269	ninghamii	124
——— Sir J. Hume	196	Rogiera cordata	99
Penstemon Clousii	99	Rondeletia versicolor	124
——— cyananthus	242	Rose Narcisse de Salvandy	49
——— gentianoides Salterii	99	Salvia gesnerifolia	147, 245
——— ovatus	99	——— pseudo-coccinea	99
——— Wrightii	242	——— speciosa	246
Persea gratissima	123	Sarcopodium Lobbi, var. Henshalli	246
Pharbitis limbatus	7, 73	Saxa-Gothæa conspicua	269
Philadelphus satsum	245	Schania oppositifolia	53
Phyllocactus anguligera	52	Siphocampylus amœnus	220
——— caulorrhizus	7	Sobralia sessilis	75
Physochlaina grandiflora	245	Sphaerostema propinquum	296
Pistra Stratiotes	53	Spirea callosa	269
Platycodon chinense	296	——— Douglassii	220
Pleione humilis	196	——— laxiflora	246
——— laugenaria	75	Tacsonia manicata	73
——— maculata	75	Tamarindus officinalis	53
Poinsettia pulcherrima	298	Thibaudia macrantha	75
Polygonium Brunonis	75	Thysacanthus lilacinus	220
vaccinifolium	75, 124	Trichophilla coccinea	220
Portlandia platantha	27	Tropæolum pendulum	124
Potentilla ambigua	296	Vaccinium Rollissonii	297
——— antwerpensis	99	Vanda cœrulea	53
——— Bainsii	99	——— tricolor	99
——— bicolor-grandiflora	99	Verbena trifida	28
——— grandis	99	Veronica Andersonii	76
——— incomparable	99	Virbernum plicatum, var. dilatata	8
——— ochreatea	53	Wallenbergia vincæflora	76
——— Plantii	99	Wigandia Caraccasana	99
——— Smouthii	99		

INDEX

FOR VOLS. VIII. TO XIX. INCLUSIVE.

[The Numerals represent the Vols., the Arabic Figures the Pages.]

ILLUSTRATIONS.

- | | |
|--|---|
| <p>Abutilon venosum, xv. 25
 — vitifolium, xii. 277
 Achimenes cupreata, xv. 193.
 — grandiflora, xi. 121.
 — hirsuta, xi. 273.
 — Jauregia, xviii. 1.
 — Liepmanii, xiv. 145.
 — longiflora, x. 1.
 — multiflora, xi. 169.
 — pedunculata, x. 145.
 — picta, xii. 121.
 — rosea, x. 1.
 Allamanda Cathartica, xiii. 73.
 — Schottii, xvi. 73.
 Alona cœlestis, xii. 229.
 Anagallus pictus, viii. 209.
 Anemone Japonica, xv. 265.
 Begonia albo-coecinea, xiv. 241.
 — Cinnabarina, xviii. 25.
 Berberis Darwinnii, xix. 217.
 Bouvardia flava, xiii. 265.
 Brachycome iberidifolia, ix. 218.
 Browallia Jamesonii, xvii. 49.
 Calandrinia umbellata, xiii. 265.
 Calceolarias (Plant's hybrids), xiv. 1.
 — vars. ix. 73,
 — x. 73.
 Calystegia pubescens, xiv. 193.
 Camellia Japonica, var. Albertii, xi. 49
 — — var. Alexina, xii. 1.
 — — var. Lowii, xii. 25,
 — — vars. x. 73.
 Campana grandiflora, xviii. 243.
 Cantua dependens, xix. 121.
 Ceonothus thrysiiflorus, xii. 229.
 Chænostoma polyantha, xiii. 241.
 Cheiranthus Marshallii, xviii. 218.
 Chirita Moonii, xvi. 193.
 Chorizema latifolia, ix. 145.
 Chrysanthemum, King of the Crimsons,
 xvi. 25.
 — Nancy de Sermet, xvi. 25.
 — minimum Anais, xix. 97.
 — — Bouton d'Argent, xix. 97,
 — — Cameleon, xix. 97.
 — — Croustignac, xix. 97.
 — — Cybele, xix. 97..
 — — Eliza, xix. 97.</p> | <p>Chrysanthemum minimum, Elise Meil-
 lez, xviii. 97.
 — — Gil Blas, xix. 97.
 — — La Fiancée, xviii. 97.
 — — La Gitani, xix. 97.
 — — Le Jongleur, xviii. 97.
 — — Madame Lemichez, xix. 97
 — — Madame Mirbel, xviii. 97
 — — Pequillo, xviii. 97.
 — — Piccinino, xix. 97.
 — — Renoncule, xviii. 97.
 — — Roi de Lilliput, xix. 97.
 Cineraria, Cælestial, xi. 121.
 — Climax, xvi. 217.
 — Conqueror, xiv. 97.
 — Madame Cerito, xvi. 217.
 — Ne plus ultra, xi. 121.
 — Perfection, xiv. 97.
 — Splendens, viii. 89.
 — Victoria superb, xiv. 97.
 Clerodendron splendens, x. 145.
 Comosperma gracilis, viii. 25.
 Correa bicolor, viii. 89.
 — Cavendishii, viii. 89.
 — turgida, viii. 89.
 Cosmelia rubra, viii. 41.
 Cuphea cordata, xiv. 49.
 — miniata, xiv. 265.
 Cynoglossum longifolium, xiii. 1.
 Dahlia, Attila, x. 49.
 — Beauty of Wakefield, x. 73.
 — Bloomsbury, viii. 65.
 — Burnham Hero, ix. 49.
 — Charles the Twelfth, viii. 65.
 — Conqueror of the World, ix. 49.
 — Emperor de Maroc, xvi. 289.
 — Mrs. Hansard, xviii. 289.
 — Œillet de Boheme, xvii. 73.
 — Princess Royal, x. 73.
 — Rival Revenge, ix. 49.
 — Yellow Defiance, viii. 65.
 Daisies, six new double, xix. 1.
 Daubentonia tripetiana, x. 25.
 Dianthus caryophyllus, ix. 265
 — Garneriana, viii. 209.
 — plumarius, var. Duke of Northum-
 berland, xii. 181.
 — — Queen of Roses, xii. 181.</p> |
|--|---|

- Dipladenia crassinoda*, xiii. 145.
Dipteracanthus spectabilis, xix. 25.
Echites atropurpurea, xi. 121.
 — *hirsuta*, xi. 249.
 — *splendens*, xi. 97.
Echium petraeum, xiii. 1.
Epacris miniata, xii. 145.
Eseallonia maerantha, xix. 217.
Evolvulus purpurea-caeruleus, xiv. 25.
Franciscea latifolia, ix. 265.
 — *pohlana*, xiii. 145.
Fuchsia, *Constellation*, xii. 73.
 — *cordifolia*, ix. 241.
 — *corymbiflora*, ix. 1.
 — *alba*, xvii. 97.
 — *Enchantress*, x. 169.
 — *Exoniensis*, xi. 145.
 — *globosa magnifica*, xix. 265.
 — *Goldfinch*, xi. 225.
 — *macrantha*, xiv. 121.
 — *madonna*, xi. 225.
 — *pieta*, xiii. 131.
 — *Prima Donna*, xi. 145.
 — *Prince Arthur*, xix. 265.
 — *Queen Victoria*, xiii. 25.
 — *radicans*, x. 97.
 — *rosea-alba*, x. 121.
 — *serratifolia*, xiii. 193.
 — *spectabilis*, xvi. 145.
 — *Standishii*, viii. 25.
 — *Venus victrix*, x. 169.
 — *Village Maid*, xii. 253.
Fuchsias, vars., viii. 185; ix. 241; xi. 73.
Gardenia Devoniana, xv. 265.
 — *Florida*, var. *Fortuniana*, xiv. 290.
 — *Stanleyana*, xiii. 289.
Gardoquia multiflora, viii. 1.
Gaylussaccia pseudovaccineum, xiii. 97.
Gesneria elliptica, var. *lutea*, xiv. 217.
Gladiolus Antwerpiensis, x. 265.
Gloxinia Cartonii, xiv. 145.
 — *digitaliflora*, xi. 273.
 — *Dr. Lindley*, xix. 289.
 — *fimbriata*, xvii. 241.
 — *Fyfiana*, xv. 49.
 — *Handleyana*, xi. 249.
 — *Mr. Hoogeveen*, xix. 289.
 — *Marie Van Houtte*, xix. 289.
 — *rubra*, ix. 97.
 — *Teuchlerii*, xvi. 193.
Gompholobium Hendersonii, xiii. 121
 — *Youngii*, ix. 146.
Hardenbergia macrophylla, x. 25.
Heartsease, *Black Knight*, viii. 137.
 — *Blue Fringe*, xv. 121.
 — *Lord Nelson*, viii. 137.
 — *Miss Molesworth*, viii. 137.
Hindsia violacea, xii. 25.
 — *alba*, xiv. 25.
Hoya bella, xviii. 121.
 — *purpurea fusca*, xix. 49.
Inga pulcherima, xii. 205.
Ipomœa Hardingii, xii. 277.
 — *Learii*, viii. 161.
Jacaranda mimosifolia, xiii. 73.
Lapageria rosea, xviii. 122.
Lasiandra petiolata, viii. 25.
Leschenaultia arcuata, xv. 1.
 — *biloba*, ix. 137.
 — *splendens*, xv. 1.
Liperia pinnatifida, xiv. 193.
Lisianthus princeps, xviii. 217.
Lobelia ignea, viii. 1.
Luculia gratissima, viii. 41.
 — *Pinciana*, xiii. 49.
Lycium fuchsoides, xiv. 265.
Mandevillea suaveolens, xiii. 97.
Manettia bicolor, x. 217.
Martynia fragrans, x. 121.
Nitraria coccinea, xvi. 241.
Myosotis azorica, xiii. 1.
Nemophila atomaria, viii. 25.
 — *discoidalis*, xi. 121.
 — *maculata*, xvii. 1.
Nerium oleander, var. *tangle*, xii. 121.
Oxalis elegans, xviii. 25.
Passiflora ouychina, viii. 41.
Paulonia imperialis, x. 193.
Pelargonium, *Bridesmaid*, viii. 233.
 — *Defiance*, xvi. 193.
 — *Desdemona*, xiii. 217.
 — *Flash*, ix. 169.
 — *Gem of the West*, viii. 233.
 — *Gipsy Bride*, xvii. 193.
 — *Glory of the West*, x. 241.
 — *Guardsmen*, xiii. 233.
 — *Heidos*, xiii. 217.
 — *Hero of Surrey*, xvi. 193.
 — *Mary Queen of Scots*, xiv. 241
 — *Pluto*, xi. 201.
 — *Prince of Waterloo*, ix. 169.
 — *Princess Royal*, x. 241.
 — *roseum striatum*, xix. 194.
 — *Sunrise*, x. 241.
 — *Tom Thumb's Bride*, xviii. 145.
Pentas carnea, xii. 145.
Pentstemon azureum, xviii. 193.
 — *cyanthus*, xix. 241.
 — *gentionoides alba*, xv. 241.
 — *gigantea elegans*, xiv. 73.
 — *Gordonii*, xv. 241.
 — *M'EWannii*, xv. 241.
 — *Wrightii*, xix. 241.
Petasostylis nigrescens, xiii. 289.
Petunia Nixeni, xii. 277.
Pharbitis limbatus, xix. 73.
Phlox, *Captivation*, xiii. 49.
 — *General Duvivier*, xvii. 217.
 — *imbricata*, xvi. 121.
 — *Madame Frobel*, xvii. 217.
 — *Van Houttii*, xi. 73.
Picotée, *Jenny Lind*, xv. 217.
 — *Duchess of Sutherland*, xvii. 289.

- Picotee, Miss Duke, xvii. 289.
 Pink, Dr. Coke, viii. 257.
 ——— Masterpicce, xiii. 241.
 Plumbago Larpentæ, xvi. 1.
 Portulacæ Thellusonii, viii. 137.
 Potentilla, Brilliant, xvii. 25.
 ——— Garneriana, viii. 209.
 ——— insignis, xvii. 25.
 ——— Plantii, xvii. 25.
 Pterodisens speciosus, xii. 277.
 Ranunculus, Admittus, xix. 145.
 ——— Beauty of Fulham, xix. 145.
 ——— Dr. Channing, xviii. 217.
 ——— Enchanter, xviii. 217.
 ——— Felix, ix. 25.
 ——— Flaminus, xvii. 145.
 ——— Herbert, ix. 25.
 ——— Luna, ix. 25.
 ——— Pertinax, viii. 113.
 ——— Premium, viii. 113.
 ——— Princess Royal, xvii. 145.
 ——— Regalia, viii. 113.
 Rhododendron, Dalhousianum, xvii. 265.
 ——— jasminiflorum, xviii. 291.
 Ribes albidum, xi. 169.
 Roellia ciliata, xi. 97.
 Rondoletia longiflora, xiii. 121.
 Rose, Devoniensis, ix. 193.
 ——— Geant des Batailles, xviii. 73.
 ——— Nacisse de Salvandy, xix. 49.
 Salvia gesneriflora, xv. 97.
 Schizanthus retusus albus, xvi. 241.
 Scutellaria Japonica, xi. 201.
 Siphocampylus caudatus, xv. 73.
 ——— coccineus, xiii. 193.
 Siphocampylus microstoma, xv. 73.
 Sparaxis, vars., ix. 121.
 Stachys Downesii, ix. 217.
 Stephanotus floribundus, xii. 43.
 Tacsonia manicata, xix. 73.
 Tetratheca hirsuta, xiv. 49.
 Thunbergia chrysops, xii. 253.
 Torrenia Asiatica, xiv. 145.
 ——— cordata, xiv. 217.
 Tremandria Hugellii, xiii. 241.
 Triptilion spinosum, xii. 49.
 Tritonia aurea, xvi. 97.
 Tropæolum azureum, xi. 1.
 ——— Brickwoodii, xiii. 145.
 ——— edule, x. 193.
 ——— Lobbianum, xiii. 25.
 ——— Mortzianum, ix. 98.
 ——— speciosum, xv. 193.
 ——— Wagnerianum, xviii. 49.
 Tulip, Dr. Horner, xix. 290.
 ——— Polydora, xi. 25.
 ——— Victoria Regina, xi. 225.
 Turrea labata, xii. 49.
 Vasalia floribunda, xiii. 193.
 Verbenæ, Buistii, viii. 137.
 ——— cærulescens, x. 217.
 ——— Hendersonii, viii. 161.
 ——— Junius, xvii. 49.
 Veronica speciosa, xii. 97.
 Verticordia insignis, viii. 1.
 Victoria regia, xvi. 49.
 Viscaria oculata, xii. 97.
 Weigelia rosea, xv. 145.
 Zauchneria Californica, xvi. 265.

ORIGINAL AND MISCELLANEOUS.

- A Midland Counties Florist, reply to, xi. 122.
 "A Packet of Seed saved by an Old Gardener," review, xviii. 69.
 "A practical Treatise on warming Buildings by Hot Water," review, xii. 251, 297.
 "A select Descriptive Catalogue of Plants," review, xviii. 166.
 A young Florist, advice to, viii. 187.
 ——— Tulip Grower, advice to, xi. 105.
 Abronia umbellata, remarks on, xvii. 113.
 Abutilon vitifolium, culture of, xii. 277.
 ——— remarks on, viii. 230.
 Acacia armata, remarks on, xiv. 70.
 ——— prostrata, remarks on, x. 22, 91.
 Acacias, culture of, xix. 222.
 ——— remarks on, xviii. 12; xix. 134.
 Acarus, on destroying the, x. 235.
 Achimenes coccinea, culture of, viii. 7; x. 33.
 ——— longiflora, remarks on, x. 117.
 Achimenes picta, culture of, xii. 121.
 ——— culture of, xiv. 177; xv. 7, 193; xvi. 232.
 ——— remarks on, xii. 223; xiii. 46; xvii. 163, 185; xviii. 113.
 Agapanthus umbellatus, on the, x. 144.
 Ajuga pyramidalis, culture of, xv. 166.
 Alchemilla alpina, culture of, xv. 158.
 Allamanda Cathartica, culture of, xiii. 73; xviii. 114.
 Allamandas, remarks on, xix. 276.
 Allium ursinum, culture of, xv. 167.
 Allspice, remarks on, xiv. 254.
 Aloe, American, remarks on, xviii. 311
 ——— remarks on, xii. 207.
 Alonsoas, on bedding, xviii. 131.
 Alstromeria, Chilean, culture of, xiii. 270.
 Alstromerias, a list of, xvii. 274.
 ——— culture of, xviii. 12, 171.
 ——— remarks on, xvii. 273; xviii. 130.
 Alum, applied to the Hydrangea, xvi. 116.

- "Amaryllidaceæ," extract from, xiii. 122.
Amaryllis belladonna, remarks on, xi. 144, 242.
 — *formosa*, culture of, viii. 6.
 — *Jacobææ*, on blooming, xvii. 314.
 — culture of, xiii. 122; xv. 90; xvii. 313; xix. 42.
 — on blooming, xi. 221.
 — remarks on, xi. 139; xi. 289; xiii. 119; xviii. 288.
 — stove, treatment of, xv. 184.
Amateur Tulip Growers, a few words to, x. 93.
America, South, Botanical Expedition in, xv. 208.
American plants, applying guano to, xviii. 181.
 — — arrangement of, xviii. 169.
Amherstia nobilis, on, xviii. 315.
Ammonia, on supplying to plants, xvii. 167.
 "An Analysis of British Ferns," review, xviii. 238.
Anagallis, on bedding, xviii. 131.
 — remarks on, xiii. 115.
Ancient Writers on Flowers, on, x. 269.
Anemone Japonica, on bedding, xviii. 131.
 — — propagation of, xvi. 66.
 — *nemorosa*, remarks on, xv. 55.
 — *pulsatilla*, remarks on, xv. 56.
 — culture of the, x. 35; xiii. 303.
 — on the double, viii. 122.
 — on planting the, xii. 281.
 — remarks on, viii. 57, 134; ix. 260; xix. 285.
Anemones, a list of, x. 262; xii. 273 xiii. 192.
 — and *Ranunculuses*, on taking up, xi. 46.
 — and *Tulips*, remarks on, xii. 43.
Annual Seeds, remarks on, viii. 109.
Annuals, a list of fifty, xvii. 187.
 — a list of the best half-hardy, xv. 38.
 — a list of the best hardy, xv. 36.
 — culture of, in the open border, xv. 34.
 — on blooming, xiv. 87.
 — remarks on, viii. 60.
Antholyza Æthiopica, culture of, xiv. 188.
Antirrhinum, on the, xvii. 203.
Ants, on banishing, xiii. 119.
 — on destroying, xiii. 42; xvi. 183, 200; xvii. 309.
Aphelexis, on growing, xv. 96.
Aphis, destruction of, x. 268; xv. 91.
Apparatus for heating by hot water, xiv. 91.
 — for raising seeds, x. 284.
Aquatics, remarks on, xiv. 185.
Araucaria imbricata, on the, xv. 71.
Aristolochia gigas, remarks on, xi. 44.
Armeria maritima, culture of, xv. 166.
Arnott's Stoves, remarks on, viii. 37, 60, 62, 108, 110, 111, 132, 133, 147, 204; xi. 280; xii. 8.
Arums, remarks on, xii. 20.
Asters, China, German, and Turkey, remarks on, xix. 37, 136.
Astragalus hypolottis, culture of, xv. 157.
Astropæa, on flowering the, x. 58.
Atmosphere, changes of, indicated by plants, xv. 13.
 — on producing a moist, xiv. 107.
Auricula, culture of the, ix. 102, 125.
 — Dialogue on the culture of, ix. 77, 148, 178.
 — on the, viii. 145.
 — seed, remarks on, xii. 170.
Auriculas, a list of, xiii. 284; xiv. 106.
 — compost for, xviii. 115.
 — new seedling, xix. 178.
 — properties of, x. 119.
 — remarks on, viii. 252; ix. 190; xi. 91; xvii. 184.
 — and *Carnations*, on preserving, ix. 17.
Australian seeds, remarks on, xiii. 67.
Autumn and Autumnal Flowers, on, xviii. 273.
Autumnal scenes, xix. 309.
Azalea Indica, a list of new, xiii. 47.
 — — remarks on, x. 285; xviii. 67.
 — — treatment of, xviii. 6, 230.
Azaleas, Indian, on, xvii. 320.
 — — propagation of, xvii. 312.
 — — superb, xvi. 255.
 — culture of, viii. 234; xiii. 277.
 — on, xi. 19, 134.
 — and *Calceolarias*, on, xiv. 139.
 — and *Rhododendrons*, on, xii. 65; xvi. 128.
Balsam, culture of, xix. 132.
 — remarks on, viii. 78.
 — remarks on, xiii. 307.
Bark-pit, on a, xvi. 68.
Bedding-plants, remarks on, xix. 90.
Beds for flowers on lawns, xvi. 183.
 — for *Ranunculuses*, xvii. 53.
 "Bee-keepers' Manual," review, xiv. 304.
Begonias, a descriptive list of, xiv. 266.
 — culture of, xiv. 241, 266.
Belladonna Lily, on the, xvi. 306.
Benevolent Society, the Gardeners', xviii. 178.
Benthamia fragifera, remarks on, xiv. 60; xvi. 66, 227; xvii. 310.
Bignonia Jasminoides, on training, xviii. 249.
 — *venusta*, remarks on, xii. 71; xviii. 233.

- Bignonia venusta*, treatment of, xvi. 319.
Bignonias, the, xvii. 314.
Bilbergia zebrina, remarks on, ix. 23.
 Birds, on preserving seeds from, xiii. 27.
 Black sulphur, remarks on, viii. 204.
Bletia Tankervillea, culture of, xiv. 105.
 Bone-dust, remarks on, viii. 82; ix. 140.
Boronia serrulata, culture of, xv. 42.
 Botanic Excursion, notice of a, xiv. 21.
 — Gardens, on Kew, viii. 161, 185.
 — Society of Edinburgh, xi. 243
 — — of London, exhibitions of,
 viii. 111; xi. 197, 220; xii. 140;
 xiii. 142, 199, 218; xiv. 26, 200;
 xvii. 138, 175; xviii. 156.
 — — meeting of, xii. 173; xv. 236.
 — — seedling flowers at, xix. 175.
 Botany as applied to Horticulture, xiv.
 223.
 — of Western Australia, on, xvii. 247.
 — on the study of, xv. 112.
Bouvardia flava, culture of, xiii. 265.
 — *triphylla*, culture of, xv. 204;
 xvi. 197.
 — — remarks on, xiii. 71.
Bouvardias, culture of, xiii. 77.
 — remarks on, xv. 68; xviii. 130.
 Box-edging, on the effect of, viii. 243.
Brachycome iberidifolia, on the, ix.
 217; xiii. 140; xviii. 93.
 Brazil, the scenery of, xiv. 264.
 — the vegetation of, xvii. 57.
 Brief notes and correspondence, xvi. 72,
 96, 119.
 British Association, meeting of the, xv.
 236.
 — Flowers, xvii. 301.
 Brompton Stocks, culture of, xiii. 128.
 — — remarks on, viii. 132; xiv.
 119.
 Broom, remarks on the, xiii. 98.
 Brown Grub, remarks on, ix. 212.
Brugmansia parviflora, on, xiii. 238.
 — *sanguinea*, culture of, xvi. 64.
 — *suaveolens*, culture of, viii. 5.
 — — on blooming, xi. 271; xv.
 211.
Brunsvigia Japonica, remarks on, xii.
 298; xviii. 19.
 Bug, on destroying the American, xii.
 278.
 — on the mealy, xii. 179; xvii. 71,
 191.
 Bulbs, hardy culture of, xvii. 246.
 Cactus, on the yellow, and scarlet passi-
 flora, xi. 79, 118.
 — remarks on grafting, xiv. 187.
 — tribe, on propagating, xii. 105.
 — and other succulents, culture of,
 xvii. 314.*
 Cactuses, culture of, viii. 147; xiv. 54;
 xvi. 207.
 Cactuses, on raising seedlings, xvii. 24.
 — remarks on, viii. 111, 252; ix. 30,
 44, 60, 62, 211; x. 187, 286; xii.
 272, 296, 297; xv. 24.
 — on sowing seed of, xiii. 261.
Calampelis scabra, propagation of, xv.
 43.
 — remarks on, xi. 45.
Calceolarias, culture of, ix. 73; xi. 212;
 xii. 73; xiii. 118, 132; xiv. 158;
 xix. 45.
 — form of, xix. 230.
 — herbaceous, culture of, viii. 237.
 — on cuttings of, x. 267
 — on growing seedling, xii. 12.
 — on layering, xviii. 262.
 — remarks on, ix. 141, 236; x. 114,
 162; xii. 227, 271, 275; xiii. 115,
 310; xiv. 1, 183; xv. 24; xviii. 112,
 134.
 — shrubby, propagation of, xix. 248.
 — to strike, xviii. 67.
 — and azaleas, remarks on, xiv. 139
 California, vegetation of, xvi. 234, 249,
 275.
Calla Æthiopica, remarks on, xiii. 115
 xv. 216.
 — *Richardia*, culture of, in the open
 air, xiv. 62.
Calluna vulgaris, culture of, xv. 161.
Calystegia pubescens, on training, xviii.
 249.
Camellia, on forcing the, xv. 240.
 — on the, xi. 93; xvii. 61.
 — Marchioness of Exeter, on in-
 arching, xiii. 32.
 — — remarks on, x. 69, 91.
 — *reticulata*, on, xix. 39.
 — a descriptive list of, xi. 55, 78;
 xiv. 20, 43, 69, 90.
Camellias, culture of, xi. 49; xii. 1, 25;
 xv. 129; xviii. 209.
 — on blooming, xi. 209.
 — on grafting, xvii. 84; xviii. 306
 — on growing in house windows, ix.
 231.
 — on increasing, xviii. 299.
 — remarks on, viii. 134; ix. 139; x.
 105; xi. 53, 78; xii. 65, 91; xv. 96;
 xvii. 81; xix. 60, 65.
 — — on the best, xii. 117.
 — standard, remarks on, xviii. 316.
Campanula glomerata, culture of, xv.
 161.
 — *grandis*, remarks on, xi. 115.
 — *latifolia*, culture of, xv. 161.
 — *pyramidalis*, culture of, xv. 65.
 — — remarks on, xiv. 91, 215;
 xviii. 92; xix. 62.
 — *rotundifolia*, remarks on, xv. 161.
 Camphor, on the effects of, xiii. 2.
 Candle-tree of Panama, xix. 312.

- Canna iridiflora*, remarks on, xiii. 215.
Canna dependens, remarks on, xix. 281.
Cantuas, notice of, xix. 171.
Canvas, remarks on, viii. 252.
 Cape bulbs, culture of, xviii. 310.
Capsicum fumigatum, on, xix. 129.
Carnation, criterion of a, x. 234; xi. 285.
 — culture of the, x. 63.
 — on foulness of colour in the, xi. 286.
 — on laying, x. 2.
 — on the, viii. 89, 113.
 — — best, x. 254.
 — properties of the, x. 30, 69.
 — remarks on culture of, x. 75.
 — show, remarks on a, xiii. 22.
Carnations, a list of, ix. 142; xi. 29, 56; xvi. 243; xviii. 214, 256.
 — classes of, described, xvii. 315.
 — compost for, xviii. 310.
 — on blooming, in winter, xii. 69.
 — on diagrams of, xix. 76, 180.
 — on drooping, xiv. 297.
 — on exhibiting, xvii. 63; xviii. 139.
 — on growing in pots, xii. 33.
 — on impregnating, xvii. 16.
 — on large blooms, xvii. 226.
 — on preserving from rabbits, xiii. 68.
 — on preserving, ix. 17; x. 2, 102.
 — on propagating, viii. 175; xviii. 127.
 — on raising from seed, xvii. 182.
 — on the running of, xv. 140; xix. 131.
 — remarks on, ix. 138, 211, 215, 236; x. 49, 90; xi. 8; xii. 117, 223; xiii. 186, 212; xviii. 256.
 — and picotees, a list of, x. 276; xiii. 118; xiv. 23, 236; xvii. 257; xix. 288.
 — — on, xix. 132.
 — — on a show of, xii. 225.
 — — on cards, xvii. 196.
 — — on planting, viii. 120.
 — — on raising, xiv. 207.
 — — properties of, xiii. 283.
 — — trial exhibition, xviii. 236.
 — — winter treatment of, xviii. 270.
 — and pinks, on laying and piping, xii. 279.
Cardamine pratensis, remarks on, xv. 155.
 Cases for growing plants in, on, xi. 214.
 — Ward's, remarks on, xi. 267.
Ceanothuses, notice of, xix. 180.
 Cedar of Lebanon, remarks on, xii. 297.
Cedrus deodora, on raising from seed, xv. 67.
 — remarks on, xiv. 23, 68.
Cereus grandiflorus, remarks on, xix. 179.
Chænostoma polyantha, remarks on, xiv. 119.
 Charcoal, as a manure, xvi. 116.
 — experiments with, xi. 77.
 — on cultivating plants in, xii. 124.
 — on making, xii. 22.
 — on striking cuttings in, x. 70, 253; xii. 226.
 — remarks on, xi. 281; xii. 69, 274; xiii. 46, 69; xiv. 189.
 — *versus* bone-dust, on, xii. 238.
 — peat, on xix. 134.
Cheiranthus cheriri, culture of, xv. 56.
 — *Marshallii*, on, xviii. 139, 148.
Chelone barbata, remarks on, xiii. 93.
 China, advice from, xii. 69.
 — Mr. Fortune's visit to, xvi. 12.
 — on new plants from, xiv. 213; xv. 227.
 Chinese and Indian azaleas, propagation of, xvii. 312.
 — gardening, xvi. 308.
 — gardens, remarks on, xv. 82.
 — primrose, remarks on, xix. 112, 258.
 Chiswick Fête, jottings on, xviii. 173.
Chlora perfoliata, culture of, xv. 164.
Chorizema varium, remarks on, x. 234.
Chorozemas, compost for, xviii. 224.
 — culture of, xiv. 169; xv. 39; xvii. 225.
 — on the, xvi. 314.
 — remarks on, x. 168; xvii. 55.
 Christmas rose, remarks on, xiv. 71.
Chrysanthemum, culture of, xi. 127; xiv. 290; xvi. 25; xix. 313.
 — *Indicum*, on the, xix. 82, 112.
 — on dwarf plants of, xiii. 178; xviii. 65.
 — on the French daisy, xix. 79.
 — Society, Stoke Newington, xix. 170.
Chrysanthemums, a list of, xi. 271; xv. 305; xviii. 66.
 — on, xvi. 280.
 — on laying, xviii. 110.
 — remarks on, ix. 292; x. 166, 234; xii. 295, 296, 297; xiii. 307; xiv. 308.
Cicendia filiformis, culture of, xv. 164.
Cineraria microphylla, remarks on, xviii. 235.
Cinerarias, a list of, xv. 179.
 — best varieties, xvi. 92, 101.
 — culture of, ix. 36; xii. 22; xiv. 57, 97.
 — on, xvi. 68.
 — remarks on, x. 115; xi. 283; xiv. 95, 181; xvii. 174; xviii. 315; xix. 66, 132, 307.
 Citron, culture of the, xv. 30.
 — orange, culture of, xviii. 235.

- Clapton Nursery, remarks on, viii. 252.
Clematis azurea grandiflora, on, xvii. 166.
 — *Sieboldii*, culture of, viii. 140.
 — — remarks on, viii. 109.
 — — to bloom, xvii. 117.
 — — var. *bicolor*, culture of, xv. 44.
Clerodendron, remarks on, xiii. 22.
Clianthus puniceus, culture of, xiii. 130, 279.
 — — on growing as a standard, xv. 177.
 — — remarks on, viii. 127; ix. 166; xiii. 115.
 Climbing plants, a simple trellis for, xiv. 56.
 Clove and carnation, on the, xvii. 197.
Cobæa scandens, culture of, xi. 5.
 — — remarks on, xv. 88.
Cochlearia officinalis, remarks on, xv. 155.
 Cockroaches, to destroy, xi. 223, 295.
 Cockscomb, culture of, xiv. 135.
 — on the, x. 182.
 Cockscombs, remarks on, xi. 162; xii. 91.
 Combretums, remarks on, xvii. 164.
 Compost for pot-plants, remarks on, xiv. 79.
 Conservatory, Kew Gardens, account of, xv. 309.
 — remarks on, x. 162.
 — the Chatsworth, xiv. 44.
 — and greenhouse, remarks on, ix. 44.
Convolvulus sepium, culture of, xv. 164.
Coronilla glauca, on the, xix. 135.
Corræa speciosa, culture of, xviii. 200.
Corræas, on obtaining hybrid, xiii. 54.
Cotoneaster microphylla, remarks on, xi. 284; xiii. 310.
 Cow-dung, remarks on, xii. 116.
 Cowslip and primrose, observations on, xv. 230.
Crassula coccinea and *versicolor*, on, xix. 169.
 Creepers, on striking, xviii. 235.
 Crocus, a bed for, xviii. 112.
 — remarks on, xiv. 22; xv. 96; xix. 106.
 Crocuses, early, xvii. 302.
 — to force, xvi. 273.
Crowea saligna, remarks on, ix. 93.
 Crown Imperial, propagation of, xviii. 126.
Cuphea cordata, culture of, xiv. 49.
Cuphæas, on bedding, xviii. 131, 252.
 Currant, on the double red, xiii. 284.
 Curtis's "Beauties of the Rose," review, xviii. 192.
 Cuttings, on striking, xii. 149.
 Cuttings, on striking in burnt clay, xii. 43.
 — — in charcoal, x. 253; xii. 226.
 — remarks on, xi. 95.
 — to strike in clay, xix. 275.
Cycas revoluta, remarks on, xix. 129.
Cyclamen Europeanum, on, xviii. 316.
 — *Persicum*, culture of, ix. 151; x. 63, 87; xiii. 241; xvi. 305.
 — *Persicum*, remarks on, ix. 94.
Cyclamens, culture of, xi. 235.
 — remarks on, xviii. 235.
Cypripedium calceolus, culture of, xv. 12.
 — — remarks on, xv. 168.
 — *insignis*, culture of, xvii. 254.
Cypripediums, culture of, xvi. 296.
Cytisus Canariensis, remarks on, xvii. 186.
 Dahlia bloom, remarks on, viii. 253.
 — economy, on, x. 111.
 — observations on, ix. 219, 247.
 — obtaining early blooms of, ix. 8.
 — on number of prizes for, ix. 13.
 — on raising seedlings, ix. 171.
 — ornamental arrangement of, ix. 83.
 — roots, remarks on keeping, viii. 111; x. 286.
 — on the, ix. 49.
 — progress of the, xvi. 54.
 — Shows, remarks on, xi. 247; xviii. 16.
 Dahlias, a list of the best Fancy, xvi. 105; xviii. 35.
 — — laced or shaded, xv. 104.
 — — self, xvi. 103.
 — culture of, xvi. 31.
 — notes on new, xvi. 6.
 — of 1851, xix. 311.
 — on blooming for Show, xii. 157.
 — on the Rival, viii. 120, 174, 192.
 — remarks on, viii. 37, 38, 132, 133; ix. 138, 166, 215, 236; xii. 19, 275; xiii. 42; xvii. 9.
 — sent out in the spring of 1850, xviii. 41, 321, 324.
 — treatment of, viii. 123.
 Daisy, on the double, xvi. 150, 260; xvii. 260; xix. 1.
Daphne cneorum, remarks on, xiv. 287.
 — *laureola*, remarks on, xv. 167.
 — *odora*, remarks on, ix. 69.
 Darwin's "Journal of a Voyage round the World," extracts from, xiv. 233, 264.
Datura arborea, remarks on, ix. 262.
 Diagrams of flowers, remarks on, xix. 76, 180.
Dianthus caryophyllus, on, ix. 265.
 — *deltoides*, remarks on, xv. 152.
 — *refulgens*, on bedding, xviii. 132.
 — *pulmarius*, culture of, xii. 181.

- Dielytra spectabilis*, on the, xix. 88.
Digitalis purpurea, remarks on, xv. 165.
Dipladenia crassinoda, culture of, xiii. 145.
 — *tenuifolia*, on, xvi. 181.
Dipteracanthus spectabilis, remarks on, xix. 25.
 Double flowers, origin of, xii. 165.
 Drainage, remarks on, xvi. 48.
 — for pots, remarks on, xiii. 214.
 Drawings, botanical, remarks on, xv. 48.
Drosera rotundifolia, culture of, xv. 57.
Droseras and *Pinguiculas*, culture of, xvii. 311.
 Duncan's "History of Guernsey," extract, x. 95.
 Dutch bulbs, remarks on, ix. 212.
 Ealing Park, remarks on the Gardens at, xiii. 143, 186.
 Earwigs, on entrapping, ix. 232.
Ecereocarpos scabra, remarks on, xvi. 227; xvii. 310; xviii. 101.
Echeveria gibbiflora, remarks on, ix. 116.
Echinocacti and *Mamillaria*, remarks on, xiv. 214.
Echium petraeum, culture of, xiii. 1.
 — *vulgare*, culture of, xv. 164.
 Edging for a walk, remarks on, xii. 70.
 "Edinburgh new Philosophical Journal," extract from, xii. 178.
Elichrysum proliferum, remarks on, xii. 41.
 Ely, Mr. Benjamin, biographical notice of, xi. 250.
Epacris grandiflora, culture of, xviii. 199.
 — *miniata*, culture of, xii. 145.
 — culture of, xvii. 281.
Epacris, remarks on, x. 22.
Epigea repens, remarks on, ix. 138.
Epilobium hirsutum, remarks on, xv. 159.
Epiphyllum truncatum, propagation of, xv. 87.
 — remarks on, xix. 66.
Eranthemum pulchellum, remarks on, xiii. 60; xiv. 263.
Erica cerinthoides, culture of, xvi. 306.
 — *mutabilis*, remarks on, xiii. 237.
Ericas, culture of, xiv. 196.
 — of Cape, xv. 18; xv. 160; xviii. 129.
 — of hardy, xv. 162.
 — propagation of, xiii. 13; xiv. 196.
 — remarks on, xi. 114; xii. 42.
 — a house for, xiii. 133.
Erichardium grandiflorum, remarks on, xi. 266.
Erophila vulgaris, culture of, xv. 56.
Erythrina crista-galli, on, x. 23; xix. 179.
 — *laurifolia*, remarks on, xiii. 140.
 — propagation of, xviii. 177.
Erythrolena conspieua, remarks on, xi. 267.
Eupatorium cannabarinum, remarks on, xv. 160.
Euphorbia jacquiniflora, culture of, xi. 111.
 — remarks on, xix. 44.
 — *splendens*, on the, viii. 103.
Euphrasia officinalis, culture of, xv. 166.
 Evergreen shrubs, remarks on, xii. 140; xiv. 149.
 Evergreens for covering a wall, on, xvi. 84.
 — propagation of, xviii. 189.
 — select dwarf hardy, xvii. 312.
 — transplanting large, xvii. 128; xviii. 281; xix. 277.
 "Every Lady her own Flower Garden," extract from, viii. 60.
Evolvulus purpurea-cœrulea, culture of, xiv. 25.
 Exhibitions, Floral, viii. 156, 225; ix. 165, 239; x. 164; xi. 142, 223, 245, 245; xiii. 154, 199, 243, 261, 266, 290; xiv. 6, 26, 50, 170, 200, 229, 244; xv. 120, 131, 185, 234, 253, 277, 298, 299; xvi. 113, 114, 129, 133, 135, 164, 173, 176, 179, 180, 208, 210, 212, 256, 258; xvii. 114, 138, 171, 173, 175, 177, 179, 192, 200, 205, 209, 228, 229, 256, 258; xviii. 89, 135, 151, 156, 159, 172, 205, 231, 250, 258, 261; xix. 68, 107, 116, 138, 142, 154, 165, 167, 169, 204, 206, 213, 234, 251, 252, 253, 255, 279.
 — Horticultural, their influence, xvii. 31.
 — on Floricultural, x. 37, 108; xi. 91.
 — of Pelargoniums, xvii. 173, 200.
 — of Tulips, xvii. 177, 205; xviii. 164, 202; xix. 138, 172, 185, 264.
 Exotics, on sowing seeds of, xiii. 225.
 — remarks on preserving, xiii. 116.
 Fairy-rings, remarks on, xvi. 188, 271.
 Ferns, British, remarks on, xiv. 187.
 — culture of, xiii. 293; xvi. 247; xvii. 232, 247.
 — remarks on hardy, xi. 189.
 Fish, gold and silver, remarks on, xvii. 112.
 Five minutes' advice to a Young Florist, ix. 5.
 Flax-water, remarks on, xvi. 157.
 Fleming's salting machine, xix. 258.
 Floral rarity, xvi. 72.
 Floricultural Gleanings, ix. 225, 242; x. 2, 49, 153, 218; xi. 9, 80; xii. 30, 74, 146, 261.
 Floriculture, on the pleasures of, xii. 182.
 — on the prospects of, xix. 31.
 — and Horticulture, remarks on, xiii. 3.
 Florist Reformer, xiv. 106.

- Florists, a few hints to, xi. 156.
 — Nature's limits to, xv. 301.
 — of St. Petersburg, on the, xix. 136.
 — Society of Cambridge, meeting of, xi. 246.
 — Flowers, notes on, xvi. 6, 30, 53, 76, 103; xvii. 29.
 — Flowers, on, xiii. 30; xvi. 186, 292.
 — — on exhibiting, ix. 250; x. 31.
 — — on judging, x. 205.
 — — remarks on, xvii. 9.
 — — in classes, on, x. 16; xviii. 313.
 Flower, a good yellow, for bedding, xix. 132.
 — Beds, formation of, ix. 95.
 — gardening, cheap, xvii. 236.
 — — for Ladies, xvii. 137.
 — Garden, design for, xviii. 28.
 — — on arranging, xvi. 156.
 — — on providing tender plants for, xiii. 10.
 — — remarks, or a plan of, xiii. 295.
 — — gay in spring, xvii. 306.
 — Gardens, on planting, xvii. 86.
 — — remarks on, xvii. 7.
 — — spring ornaments, xvii. 311.
 — — watering, xix. 230.
 — — winter decorations of, xix. 17.
 — pots, on the sizes of, xiv. 139.
 — seeds, annual, remarks on, xi. 168.
 — — on selecting, x. 10.
 — stands, remarks on, xiii. 237.
 Flowering Plants, culture of, xiv. 73.
 — — on bulbous rooted, viii. 32; xv. 83.
 Flowers, a chapter of, xviii. 212.
 — a list of choice double, xv. 180.
 — a succession of, xvii. 178, 310.
 — artificial, on, xix. 208.
 — blanching in the flower garden, xi. 37.
 — for winter culture, xvi. 268.
 — for winter decoration, culture of, xvi. 298.
 — in Covent Garden market, xviii. 313.
 — in masses, on planting, xiii. 74; xiv. 4.
 — of our Island, xvii. 56, 82.
 — on arranging stands of, xviii. 39.
 — on contrasting colours of, xvii. 7, 58.
 — on crowns of, xv. 89.
 — on drying specimens of, viii. 102; xiii. 190; xiv. 289; xv. 64; xvii. 129; xix. 202, 204.
 — on exhibiting, x. 91.
 — on grouping and planting, viii. 172; xv. 261.
 — on hybridizing, xvi. 188.
 Flowers, on obtaining double, xi. 156.
 — on planting in beds, xv. 174.
 — on preserving, xv. 44.
 — on seedling, xix. 276.
 — on the colours of, xv. 63.
 — on the love of, xv. 249, 268, 288; xix. 208.
 — on the names of, xi. 38.
 — on the origin of double, xii. 165.
 — on wintering half-hardy, xv. 255.
 — ornamental, xvi. 88.
 — popular, properties of, xvi. 8.
 — remarks on, xii. 226, 283; xiv. 128.
 — — on culture of, xiii. 103.
 — — on double, xi. 114; xv. 442.
 — — on impregnating, xi. 134, 189.
 — — on preserving, viii. 37.
 — — on spring, xviii. 91.
 — — on spring blooming, xii. 250.
 — — on white, xii. 21.
 — — on wild, xi. 7.
 — schemes of, xviii. 90.
 — — songs of the, xvii. 71, 96, 120, 143, 192, 215.
 — the arrangement of, xvii. 36, 65.
 — the form of, xvii. 102.
 — to preserve in bloom, xix. 56.
 — to take impressions of, xvi. 106.
 — wax, noticed, xix. 175.
 — and fruits on the more general culture of, xvi. 271.
 Flues of hothouses, on washing, x. 268.
 Forcing-house, on heating, xix. 135.
 Forget-me-not, song of the, xvii. 215.
 Fountain, remarks on a, xvi. 234.
 Foxglove Tree, remarks on the, xv. 71.
 Franciscea eximia, culture of, xix. 127.
 — latifolia, on, ix. 265.
 Fritillaria Persica, remarks on, xii. 19.
 Frost, an account of, viii. 77.
 — tender plants affected by, xviii. 305.
 Fuchsia affinis, remarks on, xii. 117.
 — cordifolia, remarks on, xviii. 37.
 — corymbiflora, remarks on, ix. 46, 191; xi. 110.
 — corymbosa, remarks on, viii. 255.
 — fulgens, culture of, ix. 146; x. 201.
 — — remarks on, ix. 114, 167, 264; x. 162.
 — hybrid, remarks on, ix. 213.
 — serratifolia, remarks on, xvii. 33; xix. 96.
 — — to bloom in the open air xvi. 112.
 — spectabilis, on, xviii. 288, 311.
 — on raising and flowering the same season, xii. 230.
 — on wintering, xvii. 316.
 Fuchsias, a list of, xiv. 138.
 — blooms, not expanding, xv. 188, 212.

- Fuchsias, culture of, x. 61; xii. 273; xvii. 135.
 — for borders, xiii. 70.
 — in the open border, xviii. 21.
 — on, ix. 1, 241; xvi. 313.
 — on bedding, xviii. 132.
 — on grafting, x. 22, 224; xii. 278; xiii. 93.
 — on potting and soil for, xiv. 87.
 — on raising hybrid, ix. 27.
 — remarks on, xi. 96, 119, 267; xii. 146, 227, 275; xiv. 92, 138; xvii. 223.
 Fumigating, remarks on, xiii. 308; xvi. 319.
 Galcopsis versicolor, remarks on, xiv. 166.
 Garden, an invalid's, xviii. 255.
 — laws, remarks on, xii. 70.
 — on the delights of a, ix. 191.
 — ornamental, xvii. 222.
 — the Calcutta Botanic, xvii. 13.
 — structures, remarks on, xiv. 141.
 Gardeners' Association for Mutual Instruction, meeting of the, xiv. 118.
 — Association, meeting of the West London, x. 138.
 — rules for, xv. 261.
 — Society of Regent's Park, meeting of, xiii. 308; xv. 134.
 Gardenia Stanleyana, culture of, xiii. 289.
 — Whitfieldii, on, xvi. 231.
 Gardenias, remarks on, xviii. 18.
 Gardening, Chinese, on, xv. 200.
 — in Sweden, on, xiv. 287.
 — landscape, on, xvii. 279.
 — instructions, xvi. 17.
 — the history of, xiii. 33, 56.
 — the pleasures of, xv. 32.
 Gardens of Mexico, remarks on the, xiii. 149.
 — reminiscences of, xviii. 54; xix. 33.
 Gas, on heating by, x. 232.
 — remarks on, x. 213, 263.
 Gas-tar, for walks, remarks on, xiv. 185.
 Gazania pavonia, remarks on, xviii. 115, 138.
 Gentiana acaulis, remarks on, x. 287; xii. 172; xiii. 215.
 — amercella, remarks on, xv. 163.
 — campestris, remarks on, xv. 163.
 — filiformis, remarks on, xv. 143.
 — pneumonanthe, xv. 163.
 Gentianella, remarks on, xi. 134.
 Geranium phœum, culture of, xv. 156.
 — pratense, culture of, xv. 157.
 — sanguineum, xv. 156.
 Geraniums, *see* Pelargoniums.
 Gesneraceous plants, treatment of, xv. 7.
 Gesneria zebrina, remarks on, xii. 45; xiii. 42, 43.
 Gesnerias, remarks on, xix. 86.
 Gladiolus cardinalis, culture of, xvii. 169.
 — — remarks on, x. 119; xvi. 182.
 — floribundus, varieties of, xvii. 317.
 — Natalensis, remarks on, x. 90, 285.
 — a list of, xix. 257.
 — culture of, x. 103; xv. 78, 171; xvii. 18.
 — on hybridizing, xix. 18.
 — remarks on the, xviii. 41, 296.
 Glass, a substitute for, xiii. 70.
 — and glazing, on, xiii. 282.
 — cases, on growing plants in, xii. 133, 153, 215.
 — coloured, remarks on, xv. 252.
 — labels, remarks on, xiii. 191; xiv. 215.
 — on repairing, xvi. 88.
 — remarks on coloured, xviii. 65.
 — violet-coloured, x. 92.
 Glechoma hederacea, remarks on, xv. 166.
 Globe Amaranthus, on the, xix. 113.
 Gloriosa superba, remarks on, xi. 91.
 Gloxinia fimbriata, remarks on, xvii. 241.
 — Fyfiana, remarks on, xviii. 196.
 — rubra and Tropæolum Mortzianum, on, ix. 97.
 Gloxinias, culture of, xi. 49, 87.
 — propagation of, xv. 301; xviii. 127.
 — remarks on, xii. 116, 117; xix. 86.
 Glycine Harrisonia, remarks on, xiii. 237.
 — sinensis, remarks on, xiii. 71; xix. 172.
 Gnaphalium diocum, remarks on, xv. 160.
 Goodia latifolia, remarks on, x. 91.
 Goldfussia glomerata, remarks, xiii. 43.
 Grafting, on, viii. 27; xv. 89.
 Grass for a lawn, remarks on, ix. 92.
 — lawn, destroyed, xviii. 82.
 — seeds, remarks on, xiv. 22.
 Green Fly, on destroying, x. 179; xiv. 181; xviii. 238, 322.
 — — remarks on, viii. 107; x. 234; xii. 170.
 Greenhouse, an economical, xviii. 319.
 — on a model of, xix. 111.
 — on heating a, x. 225; xi. 275; xvii. 12.
 — remarks on, viii. 22, 182; ix. 44, 45, 115; xii. 59, 199, 246; xiv. 140.
 — Creepers, a list of, viii. 125.
 — — remarks on, xiii. 109.
 — Plants, a select list of, xiv. 261.
 — — on placing in the open air, xiv. 183.

- Greenhouse, an economical, remarks on, xi. 20.
 — — treatment of, in October and November, xvii. 293.
- Greenhouses, an improved mode of heating, viii. 29.
 — on fumigating, viii. 49; xi. 94, 116.
 — on heating, xix. 280.
 — — by hot water, xii. 255; xiii. 86.
- Ground, on digging between shrubs, xii. 46.
 — on laying out a plot of, viii. 83.
 — on trenching, xii. 85.
- Groundsel, American, remarks on, xii. 21.
- Grub, remarks on the, xi. 114.
- Guano, effects of, on Fuchsias, xv. 192.
 — experiments with, xii. 44.
 — on applying to Chrysanthemums, xvi. 68.
 — remarks on, xii. 44, 68; xiii. 43, 68, 190; xiv. 63, 70, 84, 108; xvi. 109; xviii. 181.
- Guard for slugs, remarks on, xv. 44.
- Guernsey Lily, remarks on, xiv. 103.
- Gunnera scabra, remarks on, xiii. 273.
- Hawthorn, on the, xv. 102, 136.
- Heat, economical mode of producing, xvii. 250.
- Heaths, a list of hardy, xi. 283.
 — Cape, culture of, xvii. 35.
 — — propagation of, xix. 80, 88.
 — — remarks on, xvi. 124; xix. 20.
 — — to keep bushy, xvi. 40.
 — — hardy, remarks on, xiv. 286.
 — on growing, xi. 261.
 — on propagating, xi. 95, 220.
 — on training, xiii. 263.
- Heating, Polmaise system of, xiv. 143; xv. 24; xvi. 35.
 — remarks on, xi. 91; xv. 257, 272; xix. 65.
- Heliotrope, on the, x. 23.
- Heliotropiums, on bedding, xviii. 131.
 — on spotted leaves, xix. 261.
 — on watering, xii. 274.
- Helianthemum vulgare, on, xv. 155.
- Helichrysum, remarks on, viii. 181.
- Hepatica autumnalis grandiflora, remarks on, xii. 227.
 — remarks on, xiii. 197.
- Herbaceous plants, a list of spring flowering, xiii. 92.
 — — remarks on, xii. 21.
- Herbert, the Hon. and Rev. William, decease of, xv. 258.
- Highbury and North London Horticultural Society, on, xix. 89.
- Hindsia violacea, culture of, xii. 205.
 — — alba, culture of, xiv. 25.
- Hollies, on planting, xvi. 61.
- Holly Tree, address to a, ix. 88.
- Hollyhock, culture of, xix. 16.
 — remarks on the, xiv. 293; xvi. 282; xvii. 15, 62, 275; xviii. 250; xix. 288, 313.
- Hollyhocks, a list of the best, xvii. 279.
 — to propagate, xvii. 64.
- Hooker's Journal of Botany, xvii. 168.
- "Horticultural Essays," review, xi. 144, 174.
 — Gardens, remarks on, viii. 34.
 — — of London, meetings of, x. 93, 136; xi. 22, 46, 66, 92, 115, 135, 163, 190, 219, 223, 268; xii. 22, 91, 118, 141, 175, 223; xiii. 94, 141, 213, 286; xiv. 47, 93, 116, 141, 142, 180, 213, 235, 236, 259, 284, 310; xv. 137, 234; xvii. 17.
 — Society of Staines, remarks on, xix. 207.
 — — Royal Caledonian, meeting of, x. 94.
 — — Schedule of, remarks on, xix. 87.
 — Societies' Gardens, on the London, viii. 201.
 — — of London, on, ix. 151, 185, 263.
 — — meetings, rules for, xix. 232.
 — — on the Norfolk and Norwich, viii. 229.
 — — remarks on, xi. 103.
 — — remarks on the, viii. 203.
 — — remarks on the London, viii. 158, 180, 223, 251.
- "Hortus Cantabrigensis," review, xiii. 256.
- Hothouse plants, remarks on, xiii. 215.
- Hot-water apparatus, description of a portable, xii. 254.
 — — remarks on, ix. 212; x. 235; xi. 271.
 — on heating by, xiii. 86, 297.
 — on Rendle's system of heating by, xi. 236.
- Hoveas, remarks on, xiii. 237.
- Hoya carnosa, remarks on, x. 285; xi. 23, 163; xvi. 91.
- Ilyacinthus nonscriptus, remarks on, xv. 167.
 — plumosus, xi. 19.
- Hyacinth, culture of, ix. 229.
 — on forcing and culture in moss, ix. 253; xii. 242; xv. 256.
 — on the Wild, xviii. 84, 103.
 — stands, remarks on, xiii. 70.
 — the, xix. 299.
 — grown in moss, xvi. 302.
 — in glasses, remarks on, xiii. 283.
 — and Narcissus supporters, on, xv. 245.

- Hyacinths, on blooming, xii. 14; xix. 89.
 — on planting in the open border, xii. 281.
 — on selecting bulbs of, xvi. 44.
 — remarks on, viii. 253; xi. 222; xiii. 260; xiv. 22.
 Hybridizing, remarks on, xiv. 146.
 Hydrangea, on blue-flowered, viii. 207; xii. 62; xv. 227; xvi. 119, 185; xvii. 136; xix. 87.
 — on the, xvii. 254.
 — on the change of colours, xv. 60.
 — remarks on, xi. 119, 270.
 — — culture of, xi. 88.
 — Hortensis, experiments on, xi. 26
 — — in the open border, xvi. 110
 — — on producing blue flowers of, xii. 132.
 — — on the colour of, xv. 85.
 — — remarks on, x. 187; xi. 267, 274.
 — involucrata, fl. pl. on, xviii. 234.
 — Japonica, remarks on, xiv. 182.
 Hydrangeas, on bedding, xviii. 132.
 — on changing the colour of, xv. 48.
 Hypericum humifusum, on, xv. 153.
 — perforatum, on, xv. 153.
 — pulchrum, on, xv. 153.
 Ichoboe, on the island of, xii. 178.
 India, gardening in, xvii. 304.
 — on bulbs and seeds from, xvi. 146; xvii. 191.
 Inga pulcherrima, culture of, xii. 205.
 — — remarks on, xviii. 138.
 Insect life, splendour of, xviii. 83.
 Insects, on the destruction of, xiv. 155.
 — remarks on, ix. 140; xii. 296; xiii. 238, 239; xvi. 214.
 Institutions, floral, of London, xix. 177.
 Ipomœa Horsfallii, remarks on, x. 22, 91; xi. 284; xix. 89.
 — Learii, remarks on, xiv. 70.
 Ipomopsis picta, culture of, x. 8.
 Ipswich Arboretum, notice of, xix. 174.
 Iris, culture of, x. 79, 115.
 — bicolor, culture of, x. 131.
 — — remarks on, viii. 108.
 — Chinese, remarks on, xii. 178.
 — pavonia, on, xvii. 312.
 — pseudo-acorus, culture of, xv. 167.
 — Susiana, remarks on, xix. 169.
 Irises, English, a list of, x. 261.
 — Spanish, a list of, x. 262.
 — remarks on, viii. 57, 253.
 Iron trellis, on an, xix. 40.
 Isonandra gutta, on, xvi. 62.
 Ivy, remarks on, viii. 108.
 Ixia, culture of, ix. 237; xvii. 19.
 Ixias, on raising hybrid, xi. 154.
 — remarks on, viii. 132; ix. 93; x. 162; xi. 19; xiv. 185; xv. 78.
 — and Sparaxis, on, xviii. 65.
 Ixias, Gladioluses, Antholyzas, &c., culture of, xvii. 298.
 Ixoras, culture of, xix. 173.
 — remarks on, xiv. 261.
 Jacaranda mimosifolia, culture of, xiii. 73.
 Jacobæa Lily, remarks on, xiii. 120.
 Japan Lilies, remarks on, xiii. 93, 308.
 Jasmine, Cape, remarks on, xiii. 20, 21; xix. 285.
 Jasminum nudiflorum, xix. 88.
 Juniperus communis, remarks on, xv. 167.
 Kew Gardens, plants in, xviii. 100.
 Kyanized wood, remarks on, viii. 110, 183.
 Labels for trees and shrubs, on, xvi. 270.
 — glass, remarks on, xiv. 215.
 — zinc, remarks on, xii. 91; xvi. 270.
 Lachenalias, remarks on, xiii. 286.
 "Ladies' Country Companion," review, xiv. 39.
 Lagerstrœmia Indica, remarks on, xvii. 33.
 Lakes, Chinese artificial, on, xv. 281.
 Landscape and architectural gardener, on the, viii. 233; xiii. 50; xix. 41.
 Lantana mutabilis, remarks on, xv. 93.
 Lathyrus grandiflora, culture of, viii. 244.
 Lawns, on cleaning, xv. 62.
 Leaves, on taking impressions of, xiv. 22.
 — remarks on, ix. 191.
 Lemon, culture of the, xv. 30.
 Leonotis leonorus, culture of, xv. 207.
 — — remarks on, xii. 43; xix. 262.
 Leschenaultia formosa and L. biloba, culture of, ix. 146; xii. 282; xiii. 29.
 Leschenaultias, culture of, xv. 1.
 — remarks on, xviii. 65.
 Lilae, remarks on the, xii. 286
 Lilies, culture of, xvi. 313.
 — new hybrid, list of, xviii. 115.
 — — remarks on, xiii. 215.
 Lilium eximium, culture of, ix. 130.
 — — remarks on, ix. 44, 45.
 — giganteum, xviii. 251.
 — lancifolium, remarks on, xii. 68; xiii. 115, 116; xvi. 110.
 — — and varieties, xviii. 93.
 — longiflorum, propagation of, xviii. 126.
 — — speciosum and L. Japonicum, remarks on, viii. 204.
 Lily, Belladonna, remarks on, xiii. 192; xviii. 68.
 — Guernsey, on the, x. 95.
 — Jacobæa, remarks on, xiii. 120.
 — Japan, remarks on, xiii. 214.
 — of the Valley, culture of, xv. 62.
 — — remarks on, xiv. 262; xviii. 253.

- Lily of the Valley, on the, ix. 94, 116; xvi. 303.
- Lime, on the effects of, xv. 83.
- superphosphate of, as manure, xv. 96.
- tree, remarks on, xii. 194, 231.
- water, remarks on, ix. 166.
- Linaria cymbalaria*, remarks on, xv. 165.
- Linnaea borealis*, remarks on, xv. 160.
- Liquid for healing wounds in plants, ix. 115.
- Lisianthus Russelianus*, culture of, xii. 55; xviii. 183.
- — remarks on, x. 213, 234; xii. 170.
- Loam and peat soils, remarks on, xii. 60.
- Lobelia*, scarlet, culture of, xvi. 254.
- *cyanea*, remarks on, xi. 115.
- Lobelias*, culture of, xiii. 176.
- hardness of, viii. 100.
- on bedding, xviii. 131.
- remarks on, ix. 167.
- “Locks and Keys, on the construction of,” review, xviii. 327.
- Lotus, Jacobeus*, remarks on, xi. 218; xii. 41.
- London, J. C., Esq., biographical notice of, xii. 30.
- Luculia gratissima*, culture of, xiii. 79; xiv. 59.
- — propagation of, xvii. 256.
- — remarks on, x. 67; xiii. 93, 214; xvi. 67, 84.
- Lychuis*, remarks on the, ix. 260.
- *divica*, remarks on, xv. 156.
- *fulgens*, culture of, xv. 172.
- Madrid, Botanic Gardens of, xix. 182.
- Magnolia*, remarks on, xii. 68, 234, 272.
- *grandiflora*, on the, ix. 139.
- Malampyrum arvense*, culture of, xv. 165.
- Mammillaria pulchra*, treatment as an aquatic, xv. 210.
- Mandevillea suaveolens*, on training the, xviii. 249.
- — remarks on, xiii. 67.
- Manettia grandiflora*, remarks on, x. 22.
- Manure, liquid, remarks on, xi. 44.
- remarks on, xiii. 43.
- for gardens, on, xvii. 260.
- and pump-water, on, viii. 109.
- Manures, remarks on, xix. 228.
- Martynia fragrans*, culture of, xv. 85.
- — remarks on, ix. 111.
- *lutea*, remarks on, xviii. 117.
- Maurandia Barclayana*, xvi. 227.
- Meconopsis Cambrica*, culture of, xv. 56, 126.
- Melittis melisophyllum*, culture of, xv. 12.
- Melon caetus and Cloth of Gold rose, on, xviii. 315.
- Menyanthes trifoliata*, remarks on, xv. 152.
- Menziesia polifolia*, remarks on, xv. 162.
- Mesembryanthemum*, culture of, xi. 170.
- *tricolor*, on bedding, xviii. 132.
- Mice, on destroying, xv. 142.
- Michaelmas asters, remarks on, ix. 236.
- Mignonette, culture in pots, ix. 11; xiii. 238.
- on blooming in winter, xvi. 127, 244.
- on growing, xvii. 7.
- on raising from cuttings, xiii. 278.
- remarks on, xiv. 263; xviii. 222; xix. 112.
- tree, remarks on, xv. 135; xvii. 66.
- winter culture of, xv. 59, 86.
- Mildew, on destroying, x. 23.
- remarks on, xii. 69.
- Millipedes, on destroying, x. 180.
- remarks on, x. 162.
- Mimosa pudica*, remarks on, xiv. 255.
- Mimulus*, culture of, x. 151.
- on the, x. 122.
- Mixture to destroy insects, xi. 45.
- Moisture, absorbed by plants, xiv. 193.
- Morphology, on vegetable, xv. 138.
- Moss, as a protection from frost, xiii. 61.
- to destroy, viii. 182; xii. 226; xv. 204; xvi. 157, 189.
- on grass-plats, to destroy, x. 68; xix. 114.
- Mosses and lichens, culture of, xvii. 298.
- Mould, vegetable, on, xvi. 288, 312.
- Musa coccinea*, x. 38.
- Myosotis azorica*, culture of, xiii. 1.
- Nails, to preserve from rust, xiv. 238.
- Narcissus* seedling, on raising, xix. 176.
- Neapolitan violet, on the, xix. 103.
- Nelumbiums*, culture of, xix. 93.
- Nemophila*, remarks on a new, xiii. 234.
- *maculata*, on, xix. 179.
- Nerium oleander*, culture of, xvi. 111, 222.
- — on blooming, xvi. 87.
- — remarks on, ix. 70; xvii. 111.
- — var. *tanglei*, xii. 121.
- *splendens*, remarks on, x. 293.
- to obtain dwarf plants of, xiv. 278.
- New Holland, on the scenery of, xiv. 238.
- plants, compost for, xviii. 224.
- — propagation of, xviii. 225.
- — a list of, viii. 19, 34.
- — remarks on, ix. 92.
- Nitrate of soda, experiments with, xii. 44.
- Nymphæa cærulea*, on the, xix. 91.

- Observations on the culture of roses in pots, review, xiii. 15, 61, 106.
- Olea fragrans*, propagation of, xvi. 86.
- Orange trees, compost for, xix. 42.
- — culture of, viii. 144; xv. 30, 104, 178.
- — remarks on, xiii. 116; xiv. 161.
- and lemon trees, culture of, xii. 130.
- lemon, and citron, on striking, xviii. 315.
- Orchid houses, temperature of, xvii. 237.
- — the atmosphere of, xvii. 235.
- Orchidacea of Mexico and Guatemala, extract from, xii. 171; xiii. 44.
- Orchideous plants, culture of, xiii. 44.
- — on, xii. 170.
- — baskets for, xix. 212.
- Orchis mascula*, culture of, xv. 167.
- Organ Mountains, vegetation of, xvi. 76.
- Ornamental planting, on, xiv. 32.
- Oxalis, for winter flowering, xvii. 318.
- aceto sella, remarks on, xv. 157.
- Boveiana, remarks on, xiv. 23; xviii. 133; xix. 65.
- Deppei, remarks on, x. 70.
- lutea, remarks on, xviii. 133.
- Piottæ, remarks on, ix. 69.
- Oxytropis Uralensis*, remarks on, xv. 157.
- Pæonies*, herbaceous, propagation of, xix. 62.
- Japan, list of, xviii. 243.
- on the propagation of the Moutan, xix. 30.
- Pæony* tree, remarks on the, x. 44; xi. 285.
- Panama, candle tree of, xix. 67.
- Pansies, a select list of, xvi. 53.
- autumn blooming, xvi. 302.
- on desirable, xi. 260.
- on the pot culture of, xii. 167; xv. 117.
- preservation of, xv. 189.
- seedling, on, xvi. 302.
- striped, on, xix. 267.
- Pansy, culture of, ix. 168.
- on exhibiting, xiv. 94.
- on mildewing, xiii. 21, 22.
- on the double, viii. 207; ix. 71; x. 91.
- on the modes of propagating, xv. 122.
- origin and culture of, x. 27, 101.
- perfection of the, xviii. 173.
- remarks on, viii. 182; ix. 35, 191, 222; xi. 282; xii. 42; xiv. 77, 95, 183; xv. 24, 233; xvi. 40, 65; xvii. 163; xix. 117.
- soil for the, xiv. 101.
- Parnassia palustris*, culture of, xv. 154.
- Passiflora edulis*, on the, viii. 119.
- Passifloras*, remarks on, xii. 20; xvii. 43.
- Paulonia imperialis*, on, xii. 299; xv. 71; xvii. 185.
- Peat soil, good, what is it? xvi. 87; xviii. 182.
- on a substitute for, xii. 278.
- remarks on, x. 163.
- and loam soils, on, xii. 60.
- Pelargonium*, progress of the, xix. 125, 147, 199, 220, 246, 273, 304.
- remarks on, viii. 109, 134, 175, 181, 229, 252; ix. 44, 93, 116, 140, 212, 236, 246; x. 233, 287; xi. 162, 219, 242, 265, 270, 289; xii. 42, 144, 178, 226, 249, 274; xiii. 43, 186, 212, 281; xiv. 138, 190; xviii. 313, 316.
- seedling, remarks on, viii. 206.
- to growers of the, xi. 219.
- citriodora, on the, xv. 271.
- Emperor, remarks on, viii. 205.
- Priory Queen, on, ix. 261.
- scarlet, culture of, xv. 84.
- superb scarlet, Smith's, ix. 16, 23.
- Sylph, remarks on, ix. 69.
- Victory, Moore's, on, xii. 41.
- Pelargoniums*, a list of, viii. 200; ix. 118; xiv. 138.
- — collections exhibited, xiv. 191.
- autumn blooming, xviii. 21.
- Cape, on, xvi. 184.
- culture of, viii. 2, 46, 239; ix. 237, 238; x. 202, 241; xi. 201; xii. 16; xvi. 108, 199; xviii. 111.
- cuttings of, xvi. 273.
- description of seedling, viii. 218.
- double-flowered, xviii. 314.
- fancy, remarks on, xvi. 18; xix. 48, 113.
- for forcing, a list of, xv. 24.
- Mr. Hoyle's seedling, xix. 192.
- monstrous flowers of, xviii. 237.
- notes on new, xvi. 30.
- on a canvas covering for, viii. 191.
- on cutting down, xiii. 237.
- on late flowering, xviii. 162.
- on new and first-rate, xix. 35.
- on planting out, xiii. 130, 147.
- on raising from seed, ix. 10.
- on spotted leaves of, xii. 179, 226; xvi. 24; xix. 203.
- on stopping, xvi. 296.
- on training, xvii. 81; xix. 249.
- — to form dwarf plants, xix. 319.
- on watering, xii. 274.
- propagation of, xiii. 247.
- scarlet, a list of, xviii. 146.
- — on, xvii. 320.
- to prolong blooming, xviii. 181.
- winter culture of, ix. 85.

- Pelargoniums and fuchsias, remarks on, viii. 204.
 Pentas carnea, culture of, xii. 145; xiii. 76.
 Pentstemon cobæa and *P. Murryanum*, on, viii. 57.
 — *speciosum*, on, xi. 281; xvii. 41.
 Pentstemons, on bedding, xviii. 131.
 — remarks on, xiii. 44.
 Perennials, a list of, xi. 290.
 — propagation of, xix. 175.
 Petasostylis nigrescens, culture of, xiii. 290.
 Petunia, on growing the, ix. 109.
 — Count Zichy, on, xvii. 260.
 — *marginata prasina*, on, ix. 236.
 Petunias, on heading down, xiii. 91.
 — remarks on, viii. 108; xii. 68; xiii. 115.
 Pilox Drummondii, culture of, xv. 63.
 — on, x. 206.
 — on bedding, xviii. 133.
 Phloxes, a list of, xvii. 264.
 — culture of, xi. 73.
 — new, xvi. 76.
 — remarks on, xiii. 260.
 Photogenic process, remarks on, xvi. 106.
 Physiology, on vegetable, xv. 9, 92.
 Phyto-Theology, review, xix. 283.
 Picotee Nulli secundus, ix. 142.
 — seed, remarks on, xix. 207.
 Picotees, a list of, xvii. 41, 78; xviii. 214.
 — descriptive list of, x. 218.
 — remarks on, ix. 211, 225, 242; x. 70; xvii. 12.
 — showing on cards, xviii. 183.
 — yellow, the, xvi. 109, 296; xvii. 39.
 — to growers of, xviii. 87.
 — and Carnations and Pinks, opinions on, xviii. 31.
 Pimelia decussata, on, xix. 112, 114.
 Pinetums, remarks on, xix. 12.
 Pinguicula grandiflora, culture of, xv. 12.
 Pink, criterion of a good, xv. 139.
 — culture of, xii. 181; xiv. 218.
 — on forcing the, xv. 144.
 — on the origin of the, ix. 106.
 — properties of the, x. 274.
 — Smith's superb, on, ix. 19.
 — Tom Davy, on bleaching, ix. 199.
 Pinks, a chapter on, xvii. 283.
 — a list of, ix. 94, 110, 119, 136, 215; xiii. 22.
 — from slips, x. 183.
 — on bedding, xv. 264.
 — on beds for, xvii. 162.
 — on dwarf, xix. 39.
 — on preserving from rabbits, xiii. 68.
 — on the lacing of, xiii. 33; xvii. 133.
 Pinks, propagation of, xi. 288.
 — remarks on, ix. 69, 211; x. 124, 233; xi. 276; xii. 50, 86, 87, 122, 123, 150; xii. 272; xvi. 228; xvii. 129, 219; xix. 24.
 — to prevent bursting, xviii. 19.
 — to propagate in pots, xviii. 21.
 Pinus, on raising from seed, xv. 205.
 Pipes, on hot-water, xii. 116.
 Pit, for preserving plants on a, xiv. 307.
 Plant house, treatment of, xvi. 160, 182.
 — potting, on, xviii. 317.
 — protector, description of a, xi. 206; xii. 272.
 Planting, remarks on, xv. 72.
 Plants, a compound to promote the growth of, xix. 125.
 — American, exhibition of, xvi. 163.
 — at Messrs. Veitch's Nursery, xix. 246.
 — bedding, remarks on, xviii. 130.
 — British, culture of, xv. 11, 54, 152, 229.
 — climbing, a list of, xiii. 67.
 — colouring matter for, xvi. 208.
 — culture of alpine, xvii. 106.
 — of, in dwelling-rooms, xi. 259; xiii. 194; xiv. 151; xvi. 310; xviii. 81, 133.
 — in water, xiv. 133.
 — disease of, xvi. 245.
 — distribution of, in shrubberies, xiv. 259.
 — effect of situation on, xiv. 125.
 — failure in blooming, on the, xi. 152.
 — for a vase, on, x. 134; xvii. 260.
 — for a winter garden, xix. 15.
 — for autumn, winter, and early spring ornament, xvii. 303.
 — for conservatories, greenhouses, &c., xvii. 309.
 — for growing in water, x. 135.
 — for shady situations, on, ix. 93, 261.
 — for Ward's cases, xii. 42.
 — genus and species of, xviii. 254.
 — greenhouse, on exposing, xv. 151.
 — to restore, xvii. 136.
 — in bloom at the Royal Gardens at Kew, xvii. 243; xviii. 307; xix. 8, 54, 100, 197, 234, 269.
 — in dwelling-rooms, on, xv. 115.
 — in greenhouses, to increase, xvi. 202.
 — to promote bloom of, xvi. 95.
 — to protect, xviii. 67.
 — in pots, compost for, xvii. 215.
 — drainage of, xviii. 109.
 — on, xv. 283.
 — on growing, xvi. 184.
 — on watering, xvii. 15; xviii. 177; xix. 91.
 — in winter, xviii. 315.

- Plants in Wardian cases, management of, xix. 272.
- in windows, on watering, xvii. 83.
 - on a list of, viii. 109.
 - New Holland, compost for, xviii. 224.
 - on arranging, x. 93.
 - on British, for rockeries, xv. 126.
 - on climbing, xi. 234.
 - on disposing in masses, xiv. 292.
 - on dwarf shrubby, xii. 42.
 - on fastening down, xi. 287; xviii. 188.
 - on hybridizing, xii. 193.
 - on inarching, xv. 181.
 - on increasing exotic, xv. 169.
 - on neglected, xviii. 48.
 - on packing, viii. 50.
 - on potting, xi. 128; xiii. 77; xiv. 185; xviii. 138; xix. 88, 135.
 - on preserving, xvii. 87.
 - — half-hardy, xii. 274.
 - — specimens of, x. 129.
 - on protecting during winter, xi. 270; xii. 23; xv. 66.
 - on priming and thinning, viii. 15.
 - on reviving withered, xvii. 110.
 - on striking cuttings of, viii. 213; xii. 37; xii. 149; xiii. 90.
 - on the beauty of hardy herbaceous, xvii. 104.
 - on the odours of, xvii. 293.
 - on the physiology of, ix. 87, 98; xiv. 98; xvi. 244.
 - on the repose of, xv. 277.
 - on trailing, x. 126.
 - on winter blooming, xiii. 23.
 - on training, xviii. 249.
 - orchideous, on, xviii. 323.
 - propagation of, xiv. 14, 37; xviii. 108, 126, 226.
 - remarks on, viii. 135; ix. 122; xii. 42.
 - — on drying, x. 115; xviii. 116.
 - seedling, early flowering of, xii. 206.
 - shrubby, propagation of, xviii. 225.
 - stove, a list of, xvii. 161.
 - to cover a bank, on, x. 22.
 - to stay bleeding of, xvi. 285.
 - water, remarks on, xvi. 204.
- Pleasure garden, on the, xiii. 249.
- Plumbago capensis, remarks on, xvii. 92.
- Larpentæ, culture of, xvi. 1, 72.
 - — on, xvii. 300.
- Poinsettia pulcherrima, culture of, xv. 211.
- — on, xvii. 309; xix. 64, 92.
- Polyanthus, culture of, ix. 84; x. 59; xiv. 2.
- descriptive list of, x. 152; xi. 146; xii. 146.
- Polyanthus, remarks on, viii. 71; x. 168; xi. 282; xii. 114, 299; xiii. 92; xvii. 184.
- Tantara, on, x. 283.
- Polyanthuses, new seedling, xix. 178.
- Polygonium amphibium, on, xv. 167.
- bistorta, on, xv. 167.
- Pomegranate, double, culture of, xiv. 154, 156.
- on the double, xviii. 64.
 - remarks on the, xiv. 95.
- Portulacca Thellinsonii, remarks on, ix. 239; xviii. 18.
- Potentilla, on the, xvii. 224; xviii. 310.
- anserina, remarks on, xv. 159.
 - verna, remarks on, xv. 159.
- Pots, remarks on, ix. 212, 262.
- Potsherds, on using, in compost, xiv. 253.
- Potting, remarks on, xii. 95.
- Prangosapularia, on the, viii. 205, 230.
- Primrose, Chinese, on the, x. 47; xvi. 158, 201.
- remarks on, ix. 69; xv. 230.
 - song of the, xvii. 72.
- Primula Scotica, remarks on, xv. 136.
- sinensis, culture of, viii. 170; xv. 228.
- Prizes, remarks on awarding, viii. 133.
- Pyrolas, culture of, xv. 162.
- "Quarterly Review," extract from, xi. 38.
- Queries, remarks on, ix. 207.
- Quicklime, to prevent dampness, xvii. 162.
- Ranunculus, culture of, xi. 93; xii. 5, 26; xiii. 30, 191.
- alpestris, on, xv. 155.
 - Asiaticus, on the, ix. 25.
 - roots, on taking up, xi. 46.
 - seed, on, xii. 66, 223.
 - lists of, xv. 88, 180; xix. 9.
- Ranunculuses, on beds for, xiv. 182.
- on planting in the open border, xii. 281.
 - on raising from seed, xiii. 174; xvi. 230, 246; xviii. 66.
 - on seedling, xv. 141.
 - remarks on, ix. 260; xi. 45, 102; xiv. 260; xvii. 66, 162; xviii. 92.
 - and Tulips, on, xi. 44.
- Rats and mice, to destroy, xiv. 144; xv. 67; xix. 39.
- Red Spider, to destroy, x. 23, 207, 235; xii. 220; xiv. 308; xv. 71; xvi. 119.
- Repton, Mr., remarks on, xvi. 111.
- "Revue Horticale," extract from, xii. 297; xiv. 144.
- Rhinanthus Crista-galli, on, xv. 165.
- Rhodanthe Manglesii, culture of, xv. 106; xviii. 303.
- — remarks on, viii. 237; xiii. 43; xiv. 70; xviii. 56.

- Rhododendron, on budding and grafting, xii. 161; xiii. 286; xiv. 261; xvii. 181.
- on propagating from seed, xv. 280.
 - remarks on, viii. 203; ix. 117, 138; xi. 280; xii. 280; xiii. 69.
 - arboreum, on, xix. 174.
 - maximum, on, xviii. 314.
- Rhododendrons, a descriptive list of, x. 282.
- of Sikkim Himalaya, xvii. 156.
 - on flowering, xvii. 313.
 - on hybrid, xii. 180; xix. 38.
 - on pruning, xviii. 234.
 - propagation, xviii. 301.
 - and Azaleas, Mr. Warterer's, xix. 176.
 - — on seedling, xvi. 128.
- Rings, Fairy, on, xviii. 309.
- Roecha falcata, on blooming, xviii. 212.
- Rocket, double, remarks on, xii. 274; xix. 133, 212.
- — white and purple, xiv. 78.
 - white, culture of, x. 81; xi. 36.
- Rockwork, remarks on, x. 213; xix. 261.
- Roellia ciliata, remarks on, xiv. 186.
- Rooms, on rendering cheerful, xvii. 65.
- Root, remarks on grafting the, xv. 80.
- Roots, transmission of, xviii. 64.
- Rosary, plan of, viii. 189.
- Rose, a poetical allegory on, xii. 56.
- culture of the, x. 83; xiv. 253; xv. 40, 61, 144, 293; xvi. 83, 264; xvii. 240; xix. 61.
 - locality and soil of, xvi. 285.
 - on grafting and striking cuttings of, ix. 63; xii. 161; xiii. 44, 275; xiv. 309; xvi. 149; xvii. 90, 316.
 - on the attractions of the, xiv. 226.
 - on the Moss, xv. 107; xix. 188.
 - on the stocks for, xiv. 251, 255; xviii. 113, 244.
 - on the Yellow Noisette, ix. 182.
 - remarks on, viii. 21; ix. 19, 139; x. 21, 115, 135, 187, 285; xi. 22, 44, 95, 144, 280; xii. 21, 90, 296; xiv. 140, 183, 309; xv. 72, 182; xvi. 311; xviii. 175, 313; xix. 129, 207.
 - and Tulip, on the introduction of, ix. 33.
 - girdle, on the, xviii. 312.
 - song of the, xvii. 192.
 - Banksian, remarks on, ix. 46; xiii. 23; xvi. 82; xix. 203.
 - Cloth of Gold, remarks on, xii. 298; xviii. 202; xix. 88, 259.
 - de Lisle, remarks on, xi. 283.
 - Devoniensis, on the, ix. 193.
 - Harrisonii, on, xv. 295.
 - Ma-an-ga, on the, xix. 67.
 - Marshal Villars, on, xiv. 184.
- Rose, Prairie, remarks on, xii. 298.
- Roses, a description of the Provence and hybrid China, ix. 30.
- a list of, x. 271, 286; xi. 266; xiii. 66, 93, 261, 282, 285; xiv. 183; xv. 72, 307; xvi. 299, 311; xvii. 109, 262, 315; xviii. 64, 66.
 - a trip in search of, xiii. 308.
 - arrangement of, xviii. 279.
 - climbing, on, xvii. 255.
 - destruction of buds of, xviii. 24.
 - for exhibition, xix. 105.
 - for pillars, a list of, viii. 219.
 - — description of, viii. 210.
 - — on, viii. 203.
 - for winter supply, xvi. 58.
 - in pots, culture of, xi. 173; xvii. 108; xix. 43.
 - in pots, review, xii. 288; xix. 281.
 - in winter and spring, xviii. 322.
 - indigenous to America, xix. 150.
 - infested with green fly, xvii. 188.
 - on bedding, xviii. 131.
 - on budding, ix. 192; x. 69; xi. 109; xii. 287; xiii. 231; xiv. 238; xvii. 184; xviii. 227.
 - on classes of, xii. 108.
 - on curious and beautiful, x. 23; xi. 288.
 - on cuttings from the roots, xiv. 301.
 - on forcing, xv. 16; xvi. 82, 208, 317; xvii. 184; xviii. 229.
 - on forming a hedge of, x. 180.
 - on inarching standard, x. 110.
 - on late blooming, xvii. 133.
 - on new and superb, xix. 40.
 - on planting, xviii. 43.
 - on propagating, xv. 280; xviii. 229; xix. 134.
 - on pruning, xiv. 307; xv. 237; xvi. 85, 312; xvii. 288; xviii. 272; xix. 201.
 - on raising, from seed, xii. 218; xiv. 188, 307.
 - on the division of, ix. 194.
 - on the double yellow, viii. 25, 73, 101; ix. 230, 261; x. 47, 213; xi. 6, 22; xv. 175; xvii. 211.
 - on watering, xix. 170.
 - planting on lawns, xvii. 166; xviii. 223.
 - properties of a good, x. 286.
 - soil for, xviii. 64.
 - splendid, xvi. 233.
 - standard climbing, on, xvii. 215.
 - the altar of, xvi. 42.
 - to destroy moss on, xv. 104.
 - to destroy the fly on, xix. 42.
 - weeping, remarks on, xviii. 199.
 - Ayrshire, on, xix. 43.
 - Bourbon, on grouping, xvi. 156.
 - China, remarks on, x. 115.

- Roses, hybrid perpetual, xvi. 269.
 — perpetual, a bed of, xix. 37.
 — Persian yellow, on, xvi. 66.
 — Tea-scented China, on, xvi. 92.
 — yellow hybrid China, remarks on, ix. 70.
 "Royal Water Lily, History and Culture of," review, xviii. 327.
 Salpiglossis linearis, remarks on, x. 43.
 Salpiglossises, culture of, xviii. 304.
 Saltpetre as a manure, xii. 69.
 Salvia gesneriflora, on, xvi. 229; xvii. 110.
 — Mexicana, remarks on, xii. 226.
 — patens, culture of, x. 109.
 — on wintering, xvii. 63.
 — remarks on, ix. 237; x. 70; xi. 269, 274; xvii. 64, 318.
 — and *S. patens alba*, on, xix. 170.
 — verbenaca, remarks on, xv. 166.
 Salvias, on planting out, xiii. 130.
 — remarks on, x. 261.
 Sap in plants, absorption of, x. 181.
 — remarks on, xv. 79.
 — theory on the descent of, xix. 278.
 Sarawak, Mr. Low's visit to, xvi. 89, 158.
 Saxifraga hypnoides, on, xv. 160.
 — oppositifolia, culture of, xv. 13, 160.
 Scale, destruction of, xii. 95, 278; xiii. 283; xiv. 182; xv. 142.
 Schizanthus retusus and *S. Hookerii*, xii. 23.
 Scillas, remarks on, xviii. 101.
 School gardens, on, xvi. 307.
 Scotch Thistle, on the, viii. 123.
 Scutellaria splendens, on, xi. 236.
 Sedum anglicum, remarks on, xv. 160.
 Seedling flowers, remarks on, ix. 45.
 Seedlings, on class showing, xviii. 284.
 Seeds from the Cape of Good Hope, on raising plants from, xii. 239.
 — management of, imported, xiv. 69.
 — old, to germinate, xvi. 109.
 — on New Holland, xv. 213.
 — on promoting vegetation of, xiii. 238; xiv. 182.
 — on sowing, x. 69.
 — on the germination of, xiv. 295.
 — on the production of perfect, xiii. 80.
 — on the vitality of, xii. 69.
 — transmission, xviii. 64.
 Sensitive Plant, remarks on, xiv. 255.
 Shrubberies, on digging, xii. 53.
 — on distribution of plants in, xiv. 259.
 — on the formation of, ix. 132.
 Shrubs, evergreen, layering, xviii. 44.
 — planting, x. 29, 47; xiii. 23.
 — on planting, xv. 284.
 — in masses, xvii. 153.
 Shrubs, on transplanting, xv. 63.
 — ornamental, xvi. 88.
 — to prevent injury by wind, xiii. 192.
 Silene acaulis, culture of, xv. 154.
 — inflata, culture of, xv. 154.
 — Schaftii, on bedding, xviii. 133.
 Slater, Mr. John, reply to, xi. 158.
 Slugs, remarks on, xi. 242; xiii. 66; xiv. 155, 183; xvii. 224; xviii. 178.
 — trap for, xvi. 189; xvii. 131.
 Smoke, consumption of, xi. 28.
 — on prevention, xi. 93.
 Snowdrop, on the, xvii. 33.
 Soils, remarks on, ix. 93, 139; xii. 60; xiv. 121; xv. 106.
 Solanum dulcamara, culture of, xv. 165.
 — Jasminoides, on training, xviii. 249.
 Solitude and gardening, pleasures of, x. 11.
 Sollya hetrophylla, on raising, viii. 217.
 Sparaxis, culture of, xv. 78.
 — on the, ix. 121.
 Spergula nodosus, remarks on, xv. 156.
 Sphæria Robertsii and *S. ocriensis*, on, xviii. 200.
 Spirea filipendula, remarks on, xv. 158.
 — prunifolia pl., on, xv. 20.
 Spring, the flower garden gay in, xvii. 306.
 — flowers, "The Anemone," xix. 58.
 Stachys Downesii, on, ix. 217.
 Stephanotus floribundus, culture of, xii. 49.
 — on, xix. 42.
 Stock, intermediate, culture of, xii. 54.
 Stocks, on perpetuating double flowered, xv. 47.
 — on raising double, x. 62.
 — on saving seed from, xiv. 182.
 — remarks on, xiii. 212; xvi. 252; xvii. 296; xviii. 280.
 — Brompton, remarks on, x. 93.
 — selecting seeds of, xvi. 90.
 — and Ten-week, on, xvi. 16.
 — Queen and Giant, culture of, xvi. 318.
 — and Wallflowers, on, xi. 282, 283; xiii. 21.
 Stove and greenhouse, remarks on, viii. 38.
 — aquatics, remarks on, xiv. 185.
 — plants, remarks on, ix. 141.
 — treatment of, viii. 215.
 Stoves, atmosphere of, xix. 224.
 — on warming, viii. 141.
 Streptocarpus Rexii, remarks on, viii. 110.
 Strelitzia Regina, remarks on, xii. 251; xiii. 21.
 Styliidium ciliare, on, xviii. 135.
 Succulents, remarks on, ix. 46; x. 261; xii. 47.

- Succulents, soil for, viii. 99.
 Sulphur, how to apply effectually, xviii. 314.
 Sun-flower, on the annual, xv. 110.
 Swan River, floral production of, xvii. 233.
 Sweet Williams, on double, xiii. 148; xvii. 229.
 Sweden, gardening in, xiv. 287.
 Tagetes tenuifolia, remarks on, xiii. 308.
 Tamarisk, remarks on the, xii. 284.
 Tank system of heating, on the, xi. 236; xii. 32, 70, 98, 179.
 Tecoma Jasminoides, on, xvii. 235; xix. 259.
 Tetratheca hirsuta, culture of, xiv. 49.
 "The Bee-keeper's Manual," review, xviii. 238.
 "The Lady's Country Companion," review, xiii. 134, 179.
 "The Ranunculus, and how to grow it," review, xv. 57.
 Thorn, on the weeping, xviii. 116.
 "Thornton's Gazetteer of India," extract from, xiv. 23.
 "Three Years' Wanderings in the Northern Provinces of China," review, xv. 200.
 Thrip, on destroying, xiii. 68, 238; xv. 34, 202; xvi. 95; xviii. 285.
 Thuja pyramidalis, on, xv. 24.
 Thunbergia alata, culture of, x. 38.
 ——— remarks on, viii. 251; xi. 36.
 ——— chrysops, culture of, xii. 253; xiv. 65; xv. 20.
 ——— grandiflora, culture, xi. 108.
 Thunbergias, remarks on, x. 116.
 Tigridia pavonia, on, xii. 90.
 ——— and T. conchiflora, on, xviii. 64, 214.
 Tobacco-water, remarks on, viii. 183; xiii. 260; xiv. 184; xv. 91.
 Torenia Asiatica, on, xvi. 64; xvii. 187; xviii. 44.
 Trees, green moss on, xvii. 257.
 ——— ornamental, xvi. 88.
 ——— on pendulous, xviii. 240.
 ——— and shrubs, on the arrangement of, xiv. 32, 149.
 Trellises, remarks on, ix. 261; xiv. 56.
 Triptilion spinosum, culture of, xii. 49.
 Trollius Europæus, culture of, xv. 56.
 Tropical seeds, on raising, xvi. 316.
 Tropæolum, on a new, x. 137.
 ——— concinnum, on the, xi. 1.
 ——— Canariense, remarks on, x. 90.
 ——— Lobbianum, culture of, xii. 25.
 ——— remarks on, xv. 203.
 ——— pentaphyllum, on, xiii. 91; xviii. 20.
 ——— tricolorum, on propagating, viii. 217; x. 92, 95.
 Tropæolum tricolorum, remarks on, viii. 109; x. 43; xiii. 70; xvii. 176.
 ——— culture of, viii. 4.
 ——— tuberosum, on blooming, viii. 24, 80.
 ——— remarks on, x. 9.
 ——— and Ipomœa hædricefolia, culture of, viii. 1.
 ——— tubers, remarks on, xi. 281.
 Tuberoze, culture of, xv. 58.
 ——— remarks on, x. 115; xiii. 83.
 Tulip, feathered, xvi. 288.
 ——— on the, viii. 65; xviii. 227.
 ——— on the shape of a perfect, xii. 74; xvi. 126, 240.
 ——— remarks on, viii. 37, 41, 58, 252; ix. 53, 235; xi. 60, 74, 98, 125, 221; xvii. 124, 227; xix. 290.
 ——— remarks on a flamed, xii. 196.
 ——— Gardens, a visit to the Haarlem, viii. 137.
 ——— tree, remarks on, xii. 261.
 ——— Tyso's Polydora, on, xi. 25.
 Tulipa sylvestris, culture of, xv. 13.
 Tulips, a few words on, xvi. 148.
 ——— culture of, xi. 225; xviii. 14, 33, 62, 104, 127, 164, 207, 247.
 ——— lists of, ix. 172, 271; x. 146, 173, 194, 225, 246; xi. 33, 148, 229; xvii. 262; xviii. 64, 104.
 ——— newly broken, xix. 178.
 ——— notice of Mr. Groom's, xvi. 189; xviii. 182.
 ——— of 1850, on the, xix. 40.
 ——— on catalogues of, x. 201.
 ——— on judging, ix. 115; xix. 84.
 ——— on raising from seed, viii. 51; xi. 228; xviii. 302.
 ——— on stage, xi. 265, 282.
 ——— on the properties of, viii. 52; xi. 80, 207; xii. 33; xvii. 107.
 ——— superb, xvi. 282.
 ——— the impregnation of, xvii. 134.
 ——— and Anemonies, on, xi. 285; xii. 43.
 ——— Ranunculuses, on, xi. 44, 80.
 Turf, remarks on, viii. 132.
 Tussilago fragrans, remarks on, xii. 45; xix. 231.
 Tweedia œrulca, remarks on, viii. 103.
 Tyso, Mr. C. and Mr. W. Harrison, remarks on articles by, ix. 200.
 "Tyso on the Anemone," review, xix. 72.
 Vaccinium vitæ-idaea, on, xv. 162.
 Valencia, Botanic Gardens of, xix. 182.
 Valoradia plumbaginoides, on, xviii. 27.
 Vasalia floribunda, culture of, xiii. 146.
 Ventilation, remarks on, xvi. 63.
 Venus Flytrap, treatment of, xix. 129.
 Verandalis for plants, on, xii. 99.
 Verbascum thapsus, on, xv. 165.
 Verbascums, remarks on, x. 92.

- Verbena*, remarks on the, x. 283, 284 ;
 xii. 275 ; xiii. 115 ; xv. 72 ; xviii.
 67 ; xix. 28.
 — seed, xvi. 65.
Verbenas, a bed of, xvi. 284.
 — culture of, xviii. 211.
 — in pots, culture of, xiv. 238.
 — on planting out, xiii. 130.
Veronica chamædrys, on, xv. 164.
 — *speciosa*, culture of, xii. 97.
 — — propagation of, xviii. 235.
Veronicas, remarks on, xiv. 185.
Vesta stove, remarks on, ix. 139.
Vicia cracca, remarks on, xv. 158.
Victoria Regia, remarks on, ix. 119 ;
 xv. 27, 48 ; xvi. 49 ; xvii. 308 ; xviii.
 175, 176 ; xix. 92, 170, 212, 264.
Vienna, Botanic Gardens of, xix. 275.
Viesseuxia pavonia, on, viii. 21.
Villarsia nymphæoides, on, xv. 164.
Vinca alba, remarks on, viii. 183.
Viola hirta, culture of, xv. 155.
 — *pallida pleno*, on, xix. 103.
Violet, on the, xvi. 223 ; xvii. 114.
 — song of the, xvii. 96.
 — tree, on, xvi. 309.
 — double sweet, culture of, xv. 61.
 — — tree, culture of, xv. 125.
 — — culture of, xi. 40.
 — Neapolitan, on the, x. 119 ; xi. 221,
 284 ; xiv. 185 ; xvi. 274.
Violets, on forcing, xv. 309.
 — on the double, xii. 170.
Viscaria oculata, culture of, xii. 97.
Walks, hard and permanent, method of
 forming, xvi. 324.
 — in pleasure gardens, on the direc-
 tion of, xii. 256.
 — on edging for, xii. 70.
 — on tarring, xiv. 47.
Walks, to free from weeds, xiii. 91 ; xix.
 232.
Wallflower, song of the, xvii. 143.
Wallflowers, culture of, xvi. 292.
 — and Stocks, on, xiii. 21.
Ward's Cases, remarks on, xi. 286 ; xv.
 105, 140 ; xix. 259.
Wasp's nests, to destroy, xiii. 70.
Water Lilies, remarks on, xix. 13.
 — plants, culture of, xiv. 132.
 — — house for, xix. 210.
 — — remarks on, viii. 108.
Wax models of Flowers, on forming,
 xi. 2.
Weather, a few words on the, xiii. 234.
Weeds, to destroy, xvi. 157, 189.
 — prevention of, on walks, xix. 281.
Weigelia rosea, culture of, xv. 145.
 — — remarks on, xiv. 302 ; xvi.
 185 ; xix. 120.
Whitney's composition, on, xii. 118, 247.
 — prepared calico, on, xii. 287 ; xiii.
 26.
Window greenhouses, on, xvi. 309.
Winter-flowering in-door plants, on, xvi.
 315.
 — to preserve tender plants in, xviii.
 309.
Wire-worm, on destroying, xi. 115, 168 ;
 xii. 223 ; xiii. 214 ; xv. 66, 203 ; xvii.
 90, 235 ; xix. 258, 275.
Wood, theory on the formation of, xix. 28.
Woodlice, remarks on, x. 214 ; xi. 281 ;
 xii. 94 ; xviii. 72, 234.
Worms in a lawn, to get rid of, xviii. 312.
 — on destroying, xi. 44.
Yeast, as a manure, on, x. 43 ; xii. 45 ;
 xix. 231.
Zachneria Californica, on, xvii. 89.
Zinc, ink for writing on, xvii. 67.

NEW OR RARE PLANTS NOTICED.

- Abelia floribunda*, xiv. 115 ; xv. 231.
 — *rupestris*, xiv. 66 ; xix. 294.
Abronia mellifera, xvii. 150.
 — *umbellata*, xvii. 266.
Abutilon Bedfordiense, xi. 63.
 — *giganteum*, xiv. 284.
 — *insignis*, xvii. 193.
 — *venosum*, xv. 26.
 — *vitifolium*, viii. 200 ; xii. 277.
Acacia austriformis, xii. 197.
 — *argyrophylla*, xvi. 194.
 — *biflora*, ix. 90, 92.
 — *bombycina*, xix. 242.
 — *ceastrifolia*, xv. 146 ; xvi. 100 ;
 xvii. 101.
 — *cultriforme*, xvi. 100.
 — *dealbata*, xviii. 79.
 — *decipiens*, xvii. 5.
Acacia decurrens, xviii. 79.
 — *dentifera*, xi. 217 ; xvi. 100 ; xvii.
 5 ; xix. 298.
 — *diptera* ; var. *erioptera*, x. 113.
 — *emarginata*, xvi. 100.
 — *eriocarpa*, xviii. 79.
 — *graveolens*, xvii. 101.
 — *grandis*, xix. 193.
 — *hispidissima*, xix. 193.
 — *hybrida*, xvii. 101.
 — *lanceifolia*, xviii. 79.
 — *leptoneura*, xvi. 26 ; xvii. 5 ; xix.
 298.
 — *liniata*, xvi. 100 ; xvii. 5 ; xviii.
 79 ; xix. 298.
 — *mæsta*, xv. 3.
 — *mueronata*, xviii. 79.
 — *nigrescens*, xvi. 100.

- Acacia oncinophylla*, xvi. 50.
 — *ovata*, xvii. 5; xix. 298.
 — *oxycedrus*, xix. 121.
 — *pentastema*, xvi. 100.
 — *platypetala*, x. 89.
 — *platyptera*, ix. 68.
 — *præniorsa*, xvi. 100; xvii. 5; xix. 298.
 — *prominens*, xvii. 101.
 — *pubescens*, xviii. 79.
 — *pulchella*, xvi. 123; xvii. 101.
 — *riceana*, xviii. 79; xix. 121.
 — *rotundifolia*, xi. 239; xvi. 194; xvii. 5; xviii. 79; xix. 298.
 — *soppora*, xvi. 100; xvii. 101.
 — *spectabilis*, xi. 239.
 — *squamata*, xvii. 28.
 — *suaevolens*, xviii. 79.
 — *sulcata*, xvi. 100.
 — *trinervata*, xvii. 5; xix. 298.
 — *undulæfolia*, xvii. 28.
 — *urophylla*, ix. 92; xix. 97.
 — *verticillata*, xvii. 101.
 — *vestita*, xvii. 5; xix. 298.
Acantholimon glumaceum, xviii. 292.
Acanthophippium Javanenses, xiii. 65; xiv. 257; xviii. 50.
 — *nova sp.* xvi. 2.
Achimenes alba, xiv. 212.
 — *argyrostigma*, xiii. 235; xiv. 215.
 — *atro-sanguinea*, xiv. 235.
 — *Baumannii*, xix. 4.
 — *Bodneri*, xix. 4.
 — *candida*, xvi. 257, 289.
 — *cupreata*, xv. 193.
 — *Escheri*, xviii. 121.
 — *formosa*, xiv. 235.
 — *grandiflora*, x. 210; xi. 121.
 — *hirsuta*, xi. 273.
 — *illicifolia*, xiv. 235.
 — *Jaureguia*, xviii. 1.
 — *Jayii*, xvii. 290.
 — *Kleeii*, xvii. 290.
 — *Leipmanii*, xiv. 145.
 — *longiflora*, x. 1.
 — *var.* xiv. 180.
 — *multiflora*, xi. 41, 169.
 — *ocellata*, xvi. 73, 101.
 — *confluens*, xviii. 79.
 — *patens*, xiv. 212.
 — *pedunculata*, x. 145.
 — *picta*, xii. 121; xvii. 6.
 — *pulcherrima*, xvi. 222.
 — *rosea*, x. 1.
 — *venusta*, xv. 245; xvi. 125.
Achroynchia Cunninghamii, xi. 62.
Acianthera punetata, xi. 43.
Aconitum ovatum, viii. 200.
 — *sinensis*, xix. 50.
Aerophyllum venosum, xii. 139.
 — *verticillatum*, xi. 278.
Adamia versicolor, xvi. 209; xviii. 98.
Adcnium Honghel, xiv. 281.
Adeocalymna coniosum, xiv. 66.
 — *nitida*, xviii. 75.
Adenostoma fasciculata, xix. 50.
Adiantum varium, xviii. 79.
Æchmea discolor, xv. 99.
 — *fulgens*, xi. 240.
Ægiphila grandiflora, xiv. 136.
Æonium Youngianum, xii. 197.
Ærides affinis, xi. 278.
 — *Brookerii*, ix. 184.
 — *crispa*, x. 258.
 — *maculosum*, xii. 198; xiii. 114.
 — *var. Schræderi*, xviii. 265.
 — *odoratum*, xiii. 64.
 — *quinque vulnera*, x. 17.
 — *roseum*, xix. 266.
 — *virens*, xi. 133.
Æschynanthus Roschianus, xiv. 257; xviii. 79.
 — *grandifloras*, ix. 42, 233.
 — *Javanicus*, xviii. 76.
 — *Lobbianus*, xiv. 281.
 — *longifloras*, xvi. 74.
 — *miniatus*, xiv. 305; xvii. 98.
 — *radicans*, xiv. 282.
 — *speciosus*, xv. 221.
Æsculus Hippocastinum, fl. pl., xix. 217.
Agalmyla stanina, xvi. 29, 121.
Aganasia pulchella, viii. 193.
Agapanthus umbellatus, var. *maximus*, xi. 62.
Agnostus sinuata, xiv. 282.
Akbelia quinata, xv. 123.
Allamanda Aubletia, xvii. 2.
 — *Cathartica*, x. 20; xiii. 73.
 — *grandiflora*, x. 260; xiii. 136; xv. 245.
 — *nerifolia*, xix. 218.
 — *Schotti*, xvi. 50, 74, 208.
Allium acuniatum, xviii. 292.
 — *cæruleum*, viii. 221.
Alloplectus capitatus, xvii. 195.
 — *concolor*, xvi. 122.
 — *dichrous*, xiv. 88.
 — *repens*, xiv. 233.
Almeidea rubra, xviii. 293.
Alona cælestis, xii. 229.
Alpina nutans, xiv. 210.
Alsenosmia, nova sp. viii. 250.
Alstromeria, new vars., xvii. 152.
 — *chorillensis*, xi. 242.
 — *lineatiflora*, xi. 278.
 — *magnifica*, xi. 242.
 — *nemorosa*, x. 209.
 — *psittacina*, var. *Erebouldtii*, x. 133.
Amanceus longiflora, ix. 234.
Amaryllis Ackramanii pulcherrima, xviii. 194.
 — *Banksiana*, x. 65.
 — *Leonensis*, xiv. 116.

- Amaryllis reticulata*, xviii. 121.
 — *Sweetii*, viii. 250.
Amherstia nobilis, xvii. 195; xix. 50.
Amica zygomeris, xi. 113; xiv. 257.
Amygdalus persica, fl. s. pl., xviii. 194.
Auacochilus setaceus, xii. 293.
Anagallis alternifolia, viii. 221.
 — *pictus*, viii. 232.
Anchusa petiolata, ix. 89.
Andromeda Phillyræifolia, xii. 197.
Androsache lanuginosa, xi. 89.
Anemone Govaniana, xii. 199.
 — *Japonica*, xiv. 18; xv. 74; xvii. 266.
 — — *var. hybrida*, xvi. 289; xviii. 50.
 — *obtusifolia*, xiii. 17.
 — *rivularis*, x. 66.
Angelonia angustifolia, xvi. 222.
 — *cornigera*, ix. 42.
 — *grandiflora*, x. 260.
Angræcum apiculatum, xiii. 136.
 — *bilobum*, ix. 183.
 — *distichum*, xiii. 88.
 — *funale*, xv. 98.
 — *gladifolium*, ix. 19.
 — *pellucidum*, xii. 40.
 — *versicolor*, xi. 43.
Anguloa Clowesii, xii. 114; xiii. 17; xv. 196.
 — *Ruckeri*, xiv. 233.
 — *uniflora*, xii. 293.
Anguria Mackoyana, xviii. 2.
Ania bicornis, xii. 63.
Anigozanthus fuliginosa, xv. 98.
 — *humilis*, viii. 17.
 — *pulcherrimus*, xiii. 256.
 — *Tyrianthina*, xviii. 99.
Anisanthus, nova sp., x. 257.
Anona palustris, xiv. 213.
Anopterus glandulosus, xvi. 74.
Ansellia Africana, xii. 64; xvii. 28.
Anthadenia sesamoides, xiv. 116.
Anthocercis illicifolia, xiv. 18.
Antirrhinum majus, vars. x. 212.
 — — *fl. pl.*, xii. 168.
 — — *var. quadricolor*, xi. 263.
Aotus gracillima, xiii. 88.
Aphelandra, nova sp., xiv. 114.
 — *aurantiaca*, xiii. 88.
 — *cristata*, viii. 221; xix. 242.
Aponogete distachyon, xix. 122.
Aporum sinuatum, ix. 68.
Aquilegia fragrans, viii. 220.
 — *glauca*, viii. 197.
 — *jucunda*, xv. 98.
 — *leptoceras*, xv. 290.
 — *pubiflora*, viii. 221.
 — *Skiunerii*, x. 40.
Aralia crassifolia, viii. 250.
 — *macrophylla*, xii. 270.
Araucaria Cookii, xix. 294.
Arbutus farinosa, x. 20.
 — *laurifolia*, viii. 17.
 — *mollis*, xix. 218.
Arctocalyx Endlecherianus, xviii. 217.
Arctostaphylos nitida, viii. 129; xiii. 185.
 — *pungens*, xii. 89.
Ardisia Mexicana, xii. 115.
Aristolochia angnicida, xvi. 74.
 — *caudata*, viii. 17.
 — *ciliare*, viii. 199.
 — *gigas*, x. 187; xii. 138; xiv. 113.
 — *grandiflora*, xvi. 97.
 — *ornithocephala*, xii. 293.
 — *picta*, xviii. 76.
Armeria cephalotus, xiii. 17.
 — *fasciculata*, ix. 69, 113.
 — *grandiflora*, xv. 199.
Arnebia echioides, xvi. 290.
Arpophyllum giganteum, xvi. 175.
Arundina bambusæfolia, ix. 68.
 — *densa*, x. 184.
Asclepias Curassavica, xii. 139.
 — *Donglassii*, xvii. 2.
 — *vestita*, xii. 221.
Aster Cabulicus, xi. 242.
 — *roseus novæ*, viii. 128.
 — *Sikkimensis*, xix. 25.
Astryia rosea, xii. 234.
Astrapea viscosa, xviii. 293.
Asystacia Coromandeliana, xiv. 233; xv. 96.
 — *scandens*, xvii. 151.
Atelandra incana, viii. 17.
Aucuba Japonica, nov. spec., xiii. 259.
Azalea, nov. spec., xii. 139.
 — *vars.*, xiii. 47; xv. 150; xiv. 116; xvii. 73, 101, 124, 270; xix. 269.
 — *Lætitia*, xiii. 257.
 — *Ludovica*, xiii. 304.
 — *obtusa*, xiv. 115.
 — *ovata*, xiv. 212.
 — *squamata*, xiv. 212; xv. 26.
Babingtonia Camphorosma, x. 66.
Backhousia myrtifolia, xiii. 41.
Banksia occidentalis, xix. 51.
Barbaccenia Rogieri, xix. 4.
 — *purpurea*, xiii. 88.
 — *squamata*, xii. 137; xiii. 41.
Barkeria Lindleyana, x. 42; xiv. 282.
 — *melanacaulum*, xvii. 121.
 — *spectabilis*, xii. 168.
Barleria, nov. spec., xiii. 259.
Barnadesia rosea, xi. 163; xiv. 136.
Barnardia splendens, viii. 81.
Barringtonia speciosa, xii. 17.
Bassia panicifolia, xii. 17.
Batatas betacea, viii. 247.
 — *Bonariensis*, ix. 89.
Batemannia Collegi, viii. 197.
Batschia canescens, xvi. 219.
Bauhinia, nov. spec., x. 20.

- Beaufortia decussata*, x. 40; xvii. 28.
 — *splendens*, xiii. 90; xiv. 233.
Beaumontia grandiflora, xiv. 179.
Becium bicolor, xi. 89.
Befaria glauca, xiii. 138.
Begonia albo-coccinea, xiii. 209; xiv. 210, 241.
 — *argyrostigma*, xi. 65.
 — *aurantiacum*, xvi. 265.
 — *Barkerii*, x. 20; xi. 65.
 — *castanceifolia*, xi. 65.
 — *cinnabariua*, xviii. 26.
 — *coccinea*, x. 260; xi. 132.
 — *crassicaulis*, x. 90.
 — *crispa*, xi. 65.
 — *dichitoma*, xi. 65.
 — *dipetala*, xviii. 194.
 — *diversifolia*, viii. 106.
 — *Fischerii*, xi. 65; xvi. 123.
 — *Freemania*, xi. 264.
 — *fuchsioides*, xiv. 235; xv. 51; xvii. 6.
 — *heracleifolia*, xi. 65.
 — *komonyi*, xvi. 122.
 — *hydrocotylifolia*, x. 257; xi. 264.
 — *incana*, ix. 137.
 — *Ingramii*, xviii. 293.
 — *insignis*, xi. 65.
 — *Lindeniana*, xviii. 218.
 — *longisses*, xi. 65.
 — *macrophylla*, xi. 50.
 — *maniculata*, xiii. 138.
 — *Martiana*, ix. 259; xiii. 235.
 — *mexera*, xi. 65.
 — *Meyerii*, xii. 197.
 — *nov. spec.*, xi. 19, 65; xviii. 89.
 — *papillosa*, ix. 138.
 — *parviflora*, xi. 65; xvi. 52.
 — *peltata*, xiii. 138.
 — *platanifolia*, xi. 65.
 — *Preseriana*, xi. 264.
 — *punctata*, ix. 260.
 — *raimentacea*, xiii. 136; xvi. 29.
 — *rubricaulis*, xiii. 17.
 — *sanguinea*, xi. 65.
 — *scandens*, xi. 65.
 — *spathulata*, xi. 65.
 — *stigmosa*, xiii. 138.
 — *undulata*, xi. 65; xiv. 234.
 — *vitifolia*, x. 90.
 — *zebrina*, xvi. 29.
Bejaria aestuans, xviii. 218.
 — *coarctata*, xvii. 74; xviii. 217.
Bellerallia Syriaca, xiii. 20.
Bellis perennis, vars., xix. 1.
Berberis coriaria, ix. 209.
 — *Darwinii*, xix. 191, 217.
 — *dulcis*, xi. 240.
 — *illicifolia*, xv. 147.
 — *Japonica*, xviii. 79.
 — *Loxensis*, xviii. 79.
 — *lutea*, xviii. 79.
Berberis pallida, xii. 89; xix. 122.
 — *tenuifolia*, xii. 137.
 — *tinctoria*, xviii. 78.
 — *trifoliata*, ix. 235; xiii. 24.
 — *umbellata*, xii. 221; xix. 218.
 — *Wallichiana*, xviii. 78.
Bertolinia maculata, xix. 4.
Bessera miniata, xviii. 266.
Betula, *nov. spec.*, viii. 248.
Bidwellia glaucescens, xiii. 20.
Bignonia capreolata, x. 17.
 — *Carolinae*, xii. 268.
 — *Chamberlaini*, xii. 271.
 — *grandiflora*, xvi. 29.
 — *pecta*, x. 209; xi. 187.
 — *speciosa*, ix. 209; xvi. 123.
Bilbergia Morelliana, xix. 51.
Billardiera daphnoides, viii. 129.
 — *nov. spec.*, x. 212.
Blandfordia flammea, xviii. 28.
 — *marginata*, xiii. 113.
Bletia gebina, xv. 290.
Bolbophyllum calamaria, xii. 137.
 — *Carayanum*, xiii. 185.
 — *cheiri*, x i. 199.
 — *limbatum*, viii. 248.
 — *Lobbii*, xviii. 241.
 — *macranthum*, xii. 89.
 — *pileatum*, xii. 270.
 — *sordidum*, ix. 43.
 — *umbellatum*, xiii. 235; xiv. 305.
Boldoa fragrans, xiii. 281.
Bomarea simplex, ix. 113.
Boronia anemonifolia, viii. 56; ix. 90; x. 184; xi. 63; xii. 116.
 — *Frazeri*, xi. 278.
 — *ledifolia*, viii. 250; ix. 183.
 — *tetrandra*, xviii. 121.
 — *triphylla*, xvii. 98.
 — — *var. latifolia*, ix. 233.
 — *viminea*, ix. 260.
Bossia disticha, ix. 257.
 — *eriocarpa*, xi. 134.
 — *panicifolia*, xi. 133.
 — *tenuicaulis*, ix. 233.
 — *virgata*, xi. 17; xv. 200; xvii. 5; xix. 297.
Bougainvillea spectabilis, xiii. 115.
Bouvardia angustifolia, viii. 197.
 — *flava*, xiii. 265.
 — *leiantha*, xix. 98.
 — *longiflora*, xiv. 113.
 — *splendens*, viii. 54.
 — *triphylla*, *var. splendens*, viii. 177.
Brachycoume iberidifolia, viii. 119, 221; ix. 218.
Brachysema aphyllum, xviii. 2.
 — *bracteata*, xi. 264.
 — *hybrida*, x. 114.
 — *latifolia*, xvii. 100.
 — *platyptera*, x. 260.
 — *venosa*, xii. 115.

- Brassavola Digbyana*, xiv. 283; xvii. 266.
 — *glauca*, viii. 197.
 — *venosa*, viii. 129, 177.
Brassia angusta, xii. 65.
 — *aristata*, xii. 65.
 — *bidens*, xii. 65.
 — *brachiata*, xi. 42; xii. 65; xv. 124.
 — *candata*, xii. 65.
 — *Clowesii*, xii. 65.
 — *cochleata*, xii. 65.
 — *guttata*, xii. 65.
 — *Lanceana*, xii. 65.
 — *Lawrenceana*, ix. 89.
 — *macrostachya*, xii. 65.
 — *maculata*, xii. 65.
 — *Peruviana*, xii. 65.
 — *verrucosa*, xii. 65.
 — *Wrayæ*, xi. 89.
Brodiaë Californica, xvii. 102.
Broughtonia aurea, viii. 129.
 — *lilacina*, xix. 194.
Bromheadia palustris, xii. 65.
Browallia Jamesoni, xv. 244, 290; xvi. 165; xix. 266.
 — *speciosa*, xvi. 2; xvii. 52, 290.
Brownea ariza, xiii. 90; xix. 266.
 — *coccinea*, x. 258.
Brunfelsia nitida, xv. 174.
Brugmansia floribunda, x. 66.
 — *Knightsii*, xviii. 218.
 — *nov. spec.* xi. 241.
 — *parviflora*, ix. 260.
Brunfelsia violacea, xi. 265.
Brunonia australis, ix. 42.
Bryanthus erectus, xviii. 241.
Burlingtonia pubescens, xix. 5.
 — *ridida*, ix. 257.
Burtonia brunoides, xiii. 211.
 — *villosa*, xvi. 290.
Buddleia Lindleyana, xiv. 258.
Burchellia Capensis, xi. 64.
Cajanns bicolor, xiii. 185.
Caladium pictum, x. 260.
Calamintha mimuloides, xviii. 266.
Calandrinia umbellata, xiii. 236, 266.
Calanthe circuligoides, xv. 52.
 — *discolor*, viii. 247.
 — *masuca*, x. 187; xii. 197.
Calathea villosa, xii. 88.
Calboa globosa, xviii. 78.
Calceolaria, new vars., ix. 73; x. 73; xiv. 1.
 — *alba*, xix. 242.
 — *amplexicaulis*, xv. 124.
 — *cuneiformis*, xix. 25.
 — *Harlequin*, xix. 242.
 — *sulphurea splendens*, xix. 242.
 — *vivid*, xix. 242.
Calestacia cyanea, ix. 68.
Caliphruria Hartwegiana, xiii. 19.
Calistegia pubescens, xiv. 115, 193.
Calliandra brevipes, xviii. 76.
 — *Tweediei*, xiii. 280.
Callipsyche encrosoides, ix. 186; xiii. 236.
Callistachys linearis, ix. 183.
 — *longifolia*, ix. 89.
Callistemon pinifolium, xi. 42.
Calochartus pallidus, xviii. 293.
Caloscordum nerinefolium, xv. 26.
Calostemma carucum, viii. 129.
 — *lutea*, viii. 104.
Calycotome spinosa, xiv. 283.
Camarotis obtusa, xii. 270.
Camellia Japonica, varieties, x. 97; xi. 49; xii. 1, 25; xiii. 139; xv. 242; xvii. 77; xviii. 148, 195.
 — *Saccoi*, xii. 114.
Campana grandiflora, xviii. 241.
Campanula colorata, xix. 26.
 — *fragilis*, xii. 89.
 — *grandis*, xi. 89.
 — *Læflingii*, x. 211.
 — *nobilis*, xv. 4.
 — *pumila plena*, xix. 242.
 — *punctata*, x. 212.
 — *sylvatica*, xiv. 18.
 — *Vidalii*, xix. 98.
Camptosema rubicunda, xix. 266.
Campylobotrys discolor, xviii. 218.
Cantua bicolor, xvi. 290.
 — *buxifolia*, xix. 194.
 — *dependens*, xvi. 175, 220; xix. 121.
 — *pyrifolia*, xvi. 195.
Capsicum cereolum, xix. 294.
Carnation, new vars., xv. 248; xvii. 269; xviii. 293.
Cassellia integrifolia, xiii. 259.
Catasetum barbatum, ix. 43.
 — *callosum*, viii. 249.
 — — *var. grandiflorum*, xiv. 89.
 — *cornutum*, viii. 249.
 — *fimbriatum*, xviii. 266.
 — *fulginosum*, ix. 259.
 — *globiferum*, x. 133.
 — *integerrimum*, viii. 222.
 — *laminatum*, var. *eburneum*, ix. 43.
 — *lancifolium*, ix. 43.
 — *monocanthus*, viii. 220.
 — *myanthus*, viii. 220.
 — *ochraceum*, xii. 199.
 — *Russellianum*, viii. 54.
 — *saccatum*, viii. 249.
 — *trulla*, viii. 249.
 — *Waillesii*, xi. 42.
Catesbia parviflora, xi. 65.
Catha paniculata, xi. 133.
Cathecartia villosa, xix. 218.
Cattleya Aelandiæ, viii. 198.
 — *amethystina*, xvii. 122.
 — *Arembergii*, xi. 279.
 — *bulbosa*, xv. 221.
 — *elegans*, xvii. 122.

- Cattleya granulata*, x. 41.
 — *grauulosa*, var. *Russelliana*, xiii. 305.
 — *Harrisoniana*, x. 19.
 — *intermedia variegata*, xii. 168.
 — *labiata candida*, xviii. 266.
 — *picta*, xviii. 266.
 — *Lemoniana*, xiv. 210.
 — *marginata*, xii. 40.
 — *maxima*, xiv. 42.
 — *pallida*, xix. 145.
 — *Papeiansciana*, xiii. 138.
 — *pumila*, xii. 40.
 — *Skinneri*, xii. 268.
 — *superba*, xii. 113.
 — *Walkeriana*, xviii. 77.
Ceanothus cuneatus, xix. 243.
 — *dentatus*, xviii. 99.
 — *divaricatus*, xi. 134.
 — *pallidus*, viii. 104.
 — *papillosus*, xviii. 122.
 — *thyrsiflorus*, xii. 197, 229.
Cedronella pallida, xiv. 136.
Centaurea pulchra, viii. 130.
Centradenia rosea, xi. 113.
Centranthera punctata, xi. 43.
Centropogon cordifolius, x. 19.
 — *surinamense*, xiv. 233.
Centrosolenia glabra, xix. 5.
 — *picta*, xix. 295.
Cephalotaxus Fortuni, xviii. 77.
Ceradia furcata, xiii. 65.
Cerasus Japonica, xv. 151.
Cerastema longiflora, xvi. 266.
Cerbera fruticosa, xiii. 139.
Cercus cærulescens, x. 66.
 — *crenatus*, xii. 169.
 — *extensus*, xii. 63.
 — *latifrons*, viii. 198.
 — *Lecanus*, xvii. 26.
 — *leucanthus*, viii. 81.
 — *Martianus*, viii. 17.
 — *Maynardi*, xv. 124.
 — *Pitajaya*, xii. 137.
 — *Twcediei*, xviii. 77.
 — *Cunninghamia*, xvi. 27.
 — *oculatus*, xii. 169.
Cestrum aurantiacum, xii. 70.
 — *calycinum*, xix. 5.
 — *viridiflorum*, xi. 161.
Chabrœa runcinata, xii. 268.
Chænastoma polyantha, xiii. 211.
Chænestes lanecolata, xvi. 3.
Chatogastra strigosa, xvii. 26.
Cheiranthus Marshallii, xviii. 265.
 — *mutabilis*, xvii. 4.
 — *ochroleuca*, viii. 129.
Chelone barbata eoccinea, xviii. 219.
 — *Lyonii*, ix. 43.
Chilodia scutellarioides, xii. 139.
Chirita Moonii, xiv. 282; xvi. 193, 291.
 — *sinensis*, xii. 294; xiv. 180; xv. 52.
Chirita Walkeri, xv. 262.
 — *Zeylanica*, xiii. 256; xiv. 234; xv. 26.
Chironia floribunda, xiii. 209.
 — *glutinosa*, xvii. 2.
Chlorœa virescens, xiii. 257.
Chorozema Chaudleri, xiii. 139.
 — *cordata*, xviii. 80.
 — *Dicksoni*, xi. 63.
 — *elegans*, xv. 201.
 — *flava*, xvi. 27.
 — *lancifolia*, viii. 56.
 — *latifolia*, ix. 145.
 — *longifolia*, viii. 250.
 — *Spartioides*, xi. 187.
 — *spectabile*, ix. 137.
 — *triangulare*, xiv. 136.
Chrysanthemum Indicum minimum, xix. 97.
 — *new vars.*, xii. 47; xviii. 17, 97.
Chrysobactron Hookeri, xix. 243.
Chysis azurea, var. *maculata*, xix. 98.
 — *bractescens*, ix. 113.
Cineraria, vars., xiv. 97; xviii. 100.
 — *celestial*, xi. 122.
 — *elegans*, viii. 112.
 — *splendida*, x. 114.
 — *Webbcriana*, x. 185.
Cirrhopetalum auratum, viii. 199; xii. 17.
 — *Macraei*, ix. 184.
 — *Medusa*, x. 66.
 — *picturatum*, viii. 199.
 — *vaginatum*, viii. 249.
Citrus deliciosa, ix. 91.
Cleisostoma dealbata, xi. 43.
 — *ionosum*, xv. 196.
Clematis azurea gigantea, xix. 219.
 — *bulbosa*, xv. 4.
 — *crispa*, xiv. 305.
 — *gravecolens*, xviii. 51.
 — *hexasepala*, xiv. 133.
 — *indivisa*, var. *lobata*, xvi. 266.
 — *montana*, viii. 222.
 — *smilacifolia*, xiv. 282.
Cleome lutea, viii. 200; x. 18.
Clerodendron, nov. spec., xi. 65.
 — *angustifolium*, xi. 265.
 — *Bethuncanum*, xviii. 3.
 — *calamitosum*, x. 67.
 — *capitatum*, xvi. 50.
 — *infortunatum*, xii. 113.
 — *Kempferii*, xi. 241.
 — *scandens*, xvi. 50.
 — *sinuatum*, xiv. 257.
 — *splendens*, x. 65.
Clethra Mexicana, viii. 106.
 — *quercifolia*, x. 113.
Clianthus carneus, ix. 68.
 — *Dampieri*, xviii. 149.
 — *formosus*, xviii. 123.
 — *panicus*, xii. 116.

- Clidantha psoraloides*, xviii. 149.
Clitoria fulgens, xii. 197.
 — *ternata major*, xiv. 137.
Clowesia rosea, xi. 217.
Cobæa stipularis, viii. 106.
Coburghia coccinea, ix. 113.
 — *humilis*, x. 209.
 — *trichroma*, ix. 113.
 — *versicolor*, xi. 17.
Cochlearia acanlis, xiv. 282.
Coccoloba macrophylla, xviii. 242.
Cococypselon tontaria, xvii. 28.
Cælogyne asperata, xvii. 271.
 — *crystata*, ix. 91.
 — *Cumingii*, viii. 249.
 — *fulginosa*, xvii. 122.
 — *ochraceæ*, xv. 4.
 — *oscellata*, viii. 17.
 — *speciosa*, xv. 98.
 — *Wallichiana*, viii. 105; xviii. 51.
Colea floribunda, ix. 113.
Coleonema pulchra, xi. 44.
Collania Andinamareana, xiv. 233.
 — *dulcis*, xv. 147.
Colonyction macranthum, xvii. 74.
Colquonia coccinea, xviii. 123.
Columnnea aurantiaca, xviii. 195.
 — *crassifolia*, xv. 266.
 — *Schiediana*, ix. 92.
 — *splendens*, xi. 62.
Comarastaphylis arbutoides, xi. 160.
Combretum latifolium, xiii. 185.
 — *macrophyllum*, x. 134.
 — *splendens album*, xiii. 307.
Comosperma gracilis, viii. 39.
Comparettia rosea, viii. 249; xi. 62.
Conoclinium ianthinum, xviii. 123.
Conostylis setosa, viii. 17.
Consolida Aconitii, xix. 26.
Convolvulus Bryoniaeflorus, viii. 57.
 — *Italicus*, xv. 74.
 — *oscellatus*, xii. 40.
 — *scoparius*, ix. 209.
 — *verrucipes*, ix. 91.
Cordylina Sieboldii, var. *maculata*, xviii. 293.
Corethastylis bracteata, xii. 245.
Cornu grandis, viii. 106.
Correa, new vars., xvii. 76; xviii. 80.
 — *bicolor*, viii. 106; xi. 41; xiii. 139.
 — *Cavendishii*, viii. 56.
 — *Lindleyana*, viii. 56.
 — *rosea major*, viii. 106.
 — *rubroides*, xii. 139.
 — *turgida*, viii. 82.
 — *ventricosa*, xiii. 139.
Corvissartia Indica, x. 210.
Corynocarpus laevigatus, xvi. 146.
Cosmetia rubra, viii. 63.
Cotoneaster denticulata, viii. 106; x. 20.
 — *thymifolia*, xix. 295.
Cratægus crenulata, xii. 269.
Crinum commeliana, viii. 128.
 — *variable*, var. *roscum*, xii. 63.
Croci autumnales, xii. 40; xiii. 209.
Crocus annulatus Adamicus, ix. 137.
 — *lagenæflorus* var. ix. 137.
 — *speciosus*, ix. 114.
 — *suaveolens*, ix. 114.
Crotolaria undulata, viii. 129.
 — *verruceosa*, xiv. 305.
Crowea latifolia, xv. 290.
 — *stricta*, xvii. 290.
Cryptopodium Andersonii, ix. 65.
Cryptadenia uniflora, xiii. 64.
Cryptandra suavis, xii. 269.
Cryptosanus scriptus, xi. 279.
Culboa globosa, xviii. 29.
Cummingia trimaculata, xii. 197.
Cuphea cinnabarina, xviii. 219.
 — *cordata*, xiv. 42, 49.
 — *ignea*, xviii. 195.
 — *Melvilla*, ix. 258.
 — *miniata*, xiv. 180, 265.
 — *platycentra*, xiv. 180.
 — *silenoides*, xvi. 74.
 — *strigilissima*, xiv. 234.
 — *strigilosa*, xiv. 89.
Cureuma cordata, xvii. 98.
Cyananthus lobatus, xv. 27.
Cyanotilus axillaris, ix. 259.
 — *vittata*, xviii. 293.
Cyclamen macropus, xix. 5.
Cyclogyne canescens, viii. 199.
Cyenochee barbatum, xvii. 290.
 — *Loddigesii*, xiv. 88.
 — — var. *leucochilum*, ix. 89.
 — *pentadactylon*, xi. 113.
 — *pescatorei*, xviii. 266.
 — *ventricosum*, var. *Egertonianum*, xii. 17.
Cymbidium Devonianum, xi. 161.
 — *eburneum*, xvi. 3.
 — *giganteum*, xiv. 18.
 — *Mastersii*, xiii. 257.
 — *pendulum*, xii. 137.
 — *pubescens*, viii. 249; ix. 183.
Cynoglossum anchusoides, x. 89.
 — *longiflorum*, viii. 222; xiii. 1.
Cypripedium barbatum, ix. 184; x. 89.
 — *caudatum*, xviii. 123.
 — *guttatum*, xviii. 294; xix. 51.
 — *Irapeanum*, xiv. 282.
 — *Lowii*, xviii. 123, 195.
Cyrtanthera catalpæfolia, xvii. 122.
Cyrotochilum citrinum, xvii. 195.
 — *maculatum*, ix. 183.
Cyrtoceras reflexa, x. 213.
Cystanthe sprengelioides, viii. 247.
Cytinus Hypocostus, xiv. 20.
Cytisus filipes, xii. 139; xvii. 100.
 — *Weldenii*, xi. 217.
Daerydium cupressum, viii. 250.

- Dacrydium taxifolium*, viii. 250.
Dahlia, new varieties, viii. 88; ix. 49;
 x. 49; xix. 260.
 — *glabrata*, viii. 130.
Dais cotinifolia, xiii. 259.
Daphne Fortuni, xiv. 282.
 — *Houtteana*, xix. 26.
 — *Japonica*, ix. 91.
 — *purpurea*, xix. 122.
Datura cornigera, xiv. 257.
Daubentonia tripetiana, ix. 91; x. 25.
Daviesia latifolia, xi. 63; xv. 200.
 — *physodes*, xiv. 210.
Delphinium azureum, xvii. 267.
 — *cærulescens*, fl. pl., xvii. 267.
 — *cheilanthum*, var. *Hendersonii*,
 xviii. 242.
 — *grandiflora major*, xviii. 294.
 — *Japonicum*, xviii. 294.
 — *magnificum*, xviii. 294.
 — *pumila elegans*, xviii. 294.
 — *sinese*, fl. pl., viii. 222.
 — *Wheeleri*, xix. 267.
Dendrobium, nov. spec., xv. 150.
 — *aduncum*, x. 210; xiv. 89.
 — *albosanguineum*, xix. 243.
 — *anosmum*, xiii. 138.
 — *aquenum*, xi. 43.
 — *cærulesceus*, xviii. 80.
 — *calcaratum*, ix. 19.
 — *Cambridgeanum*, x. 114; xvii. 151.
 — *chlorops*, xii. 199.
 — *chrysotoxum*, xv. 193.
 — *clavatum*, xix. 243.
 — *compressum*, x. 259; xii. 269.
 — *cretaceum*, xv. 290.
 — *crumenatum*, xi. 132.
 — *cucumerinum*, x. 211; xi. 187.
 — *Dalhousieanum*, xii. 222; xiv. 66.
 — *Devonianum*, viii. 222; xvii. 74.
 — *discolor*, ix. 233.
 — *Egertonia*, xv. 198.
 — *elongatum*, ix. 91.
 — *excisum*, ix. 259.
 — *Farmerii*, xvii. 3.
 — *fimbriatum*, var. *oculatum*, xiii.
 137.
 — *Gibsoni*, xix. 295.
 — *herbacum*, viii. 221.
 — *Kingianum*, xiii. 185.
 — *Kuhlii*, xv. 242.
 — *langiolle*, viii. 248.
 — *macranthum*, x. 258.
 — *macrophyllum*, xiii. 139.
 — *mesochlorum*, xv. 198.
 — *moniliforme*, xiii. 114.
 — *moschatum*, ix. 19.
 — *Pierardi*, xiii. 139.
 — *planibulbe*, xi. 189.
 — *pulchellum*, var. *purpureum*, xiii.
 139.
 — *revolutum*, viii. 200.
Dendrobium rhombcum, xi. 90.
 — *Ruckerii*, xi. 279.
 — *sanguineum*, xi. 42.
 — *sanguinolentum*, x. 259.
 — *taurium*, xi. 279.
 — *teres*, viii. 200.
 — *tetragonum*, ix. 68.
 — *tortile*, xvii. 290.
 — *transparens*, xviii. 135, 204.
 — *tridenium*, xv. 27.
 — *Wallichianum*, xviii. 80.
Dendrochilum filiforme, viii. 200.
 — *glumaceum*, ix. 91.
 — *latifolium*, xi. 189.
Deutzia gracilis, xi. 74.
 — *scabra*, xi. 65.
 — *staminea*, xv. 75.
Diadelphia decandria, xi. 18.
Dianthus, vars. xii. 181.
 — *eruentus*, xviii. 267.
 — *Garnerianus*, viii. 232.
 — *Gæthadsii*, xiii. 259.
 — *Hendersonianus*, xv. 196.
Dasipiros Sapota, xi. 187.
Diastema ochroleuca, xiv. 258.
Dichaea glauca, xii. 270.
Didymocarpus crinita, xix. 26.
Dielytra spectabilis, xvi. 101, 195; xvii.
 218; xviii. 219.
Digitalis lutea, var. *furcate*, x. 66.
 — *minor*, x. 212; xi. 264.
 — *purpurea*, var. *superba*, xi. 90.
Dillwynia clavata, viii. 199; xii. 63.
 — *speciosa*, viii. 106.
Dinema polybulbon, xii. 63.
Diosma capitata, xv. 199.
 — *uniflora*, xv. 199.
Dipladenia crassinoda, xiii. 18, 145.
 — *ecrophylla*, xvii. 3.
 — *nobilis*, xv. 291; xvii. 52.
 — — var. *rosea*, xvii. 122.
 — *urophylla*, xvii. 98.
Diplolœmia speciosa, xii. 17.
Diplopeltis Hugelii, viii. 17.
Dipteracanthus scandens, xv. 75.
 — *spectabilis*, xviii. 51; xix. 25.
Disa cornuta, xii. 169.
 — *grandiflora*, xii. 89.
Disocactus biformis, xiii. 65.
Disophylla stellata, xiii. 114.
Dodora spatulata, viii. 250.
Dombeya mollis, xix. 122.
 — *viburnifolia*, xix. 74.
Doncklœria diversifolia, xi. 264.
Dracophyllum gracile, xi. 63.
Dryandra formosa, xii. 221.
Drymonia punctata, x. 259; xii. 137.
Duranta Plumierii, x. 20.
Duvana longifolia, xi. 278.
Eceremocarpus scaber, xviii. 242.
Echeandra terniflora, xviii. 267.
Echeveria lurida, ix. 43.

- Echeveria retusa*, xv. 267.
 — *rosca*, x. 113.
 — *Scheeri*, xiii. 138.
 — *secunda*, viii. 247.
Echinacea intermedia, xvi. 122.
Echinocactus chlorophthalmus, xvi. 122.
 — *concinus*, xi. 269.
 — *multiflorus*, xiii. 258.
 — *myriostigma*, xiii. 236.
 — *oxygonus*, xiii. 185.
 — *Pentlandi*, xi. 294.
 — *rhodophthalmus*, xviii. 29.
 — *streptocaulon*, xix. 51.
 — *Visnaga*, xix. 26.
Echinopsis campylacantha, xix. 74.
 — *cristata*, xviii. 196.
Echites atropurpurea, xi. 121.
 — *carassa*, xi. 274.
 — *Franciscea*, xv. 125.
 — —, var. *sulphurea*, xviii. 294.
 — *Gibsoni*, xi. 264.
 — *hirsuta*, xi. 64, 249.
 — *melaleuca*, xiv. 235.
 — *nutans*, xiii. 185.
 — *splendens*, x. 281; xi. 9, 97.
 — *suberecta*, viii. 197.
Echium petræum, xi. 133; xiii. 1.
Edgworthia chrysantha, xiv. 116; xv. 99.
Elichrysum retortum, xi. 64.
Elutherine anomala, xi. 279.
Epacris, nov. spec., xii. 115; xiii. 139, 140; xv. 199, 200; xvi. 100, 101, 266; xvii. 4, 5, 29, 101; xviii. 124; xix. 297.
 — *autumnalis*, xii. 269.
 — *conspicua*, xix. 194.
 — *coruscans*, xi. 265.
 — *crægi*, x. 114.
 — *dubia*, xiv. 210.
 — *heteronema*, x. 212.
 — *hyacinthiflora*, xiv. 114.
 — *miniata*, xii. 145.
 — *Tanntonensis*, xv. 267.
Epidendrum, nov. spec., xv. 52.
 — *æridiforme*, xiii. 65.
 — *arbusculum*, xi. 134.
 — *articulatum*, ix. 210.
 — *calocheilum*, ix. 258.
 — *cepiforme*, viii. 18.
 — *ceratistes*, xiii. 20.
 — *cinnabarinum*, x. 133.
 — *crispatum*, viii. 129.
 — *densiflorum*, viii. 105.
 — *dipus*, xiii. 41.
 — *falcatum*, viii. 129.
 — *fragrans*, xvii. 272.
 — *gladiatum*, ix. 69.
 — *glutinosum*, xi. 280.
 — *Grahamii*, ix. 183.
 — *Hamburii*, xii. 199.
 — *lacertinum*, ix. 184.
Epidendrum lancifolium, viii. 221; ix. 257.
 — *Lindenii*, xiii. 211.
 — *longipetalum*, xix. 5.
 — *macrochilum*, var. *roseum*, xiii. 18.
 — *ovulum*, xi. 189.
 — *Parkinsonianum*, viii. 55.
 — *Phœnicium*, ix. 210.
 — *polyanthum*, x. 42.
 — *pterocarpum*, ix. 210; xii. 169.
 — *radiatum*, ix. 210; xii. 245.
 — *radicans*, xiii. 236.
 — *raniferum*, ix. 210; x. 185.
 — *rufum*, xiii. 138.
 — *sulphureum*, xvii. 123.
 — *tripunctatum*, ix. 211.
 — *verrucosum*, xii. 269; xix. 267.
 — *vitellinum*, viii. 196; xii. 221.
Epimedium pinnatum, xvii. 196.
Epiphora pubescens, viii. 199.
Epiphyllum Russellianum, xii. 18.
Episcia bicolor, xvi. 220; xix. 146.
Eranthemum albiflorum, xiv. 113.
 — *montanum*, xi. 217.
 — *strictum*, x. 20; xiii. 306; xv. 242.
 — *variabile*, xiv. 137.
Eremostachys laciniata, xiii. 257.
Eria braectescens, xii. 138.
 — *clavicanulis*, ix. 43.
 — *convallarioides*, xv. 291.
 — *Dillwynii*, xiii. 258.
 — *floribunda*, xi. 134; xii. 113.
 — *polyura*, ix. 148.
 — *profusa*, x. 42.
 — *pulchella*, ix. 184.
 — *vestita*, xiii. 41.
Erica, nov. spec., xviii. 52, 80; xix. 51.
 — *caffra*, xix. 298.
 — *Cavendishiana*, xiv. 66.
 — *dabæcia*, xvii. 270.
 — *Leeana*, var. *viridis*, xix. 146.
 — *longiflora splendidissima*, xii. 116.]
 — *mammosa*, xix. 298.
 — *Murrayana*, xii. 127.
 — *Shannoniana*, xii. 63.
Eriua suaveolens, xi. 242.
Eriocnema marmoratum, xviii. 267.
Eriopsis biloba, xv. 52.
 — *rutidobulbon*, xvii. 98.
Eriostemon buxifolium, xii. 198.
 — *cuspidata*, xiii. 139.
 — *intermedium*, xvii. 98.
 — *neriifolium*, xvi. 146.
 — *scabrum*, xiv. 210.
Erysimum Arkansanum, xix. 243.
Erythrina Bidwillii, xv. 53; xvi. 93.
 — *erythrosthachya*, xviii. 267.
Erythrochiton Braziliense, xi. 240.
Escallonia macrantha, xvii. 267; xix. 217.
 — *Organensis*, xv. 4.
Espeletia argentea, xviii. 3.

- Eucalyptus calophylla*, ix. 235.
 — *macrocarpa*, xv. 291.
 — *splacnicarpon*, xi. 240; xii. 245.
Eugenia Brasiliensis, xviii. 219.
Eukyanthus reticulatus, xix. 269.
Eulophia squalida, ix. 259.
Euonymus Japonicus, xii. 41.
Eupatorium odoratissimum, viii. 56.
Euphorbia Bryoni, x. 134.
 — *grandiflora rubra*, xix. 195.
 — *Jacquiniflora*, xix. 298.
 — *sanguinea*, ix. 260.
Eurybia chrysotrichia, ix. 91.
Eustoma exaltatum, xiii. 88; xiv. 180.
Eutaxia myrtifolia, xv. 200.
Euthales macrophylla, viii. 200; ix. 67.
Evolvulus purpureo-cæruleus, xiv. 25.
Exacum tetragonum, var. *bicolor*, xvi. 3.
 — *Zeylanicum*, xvii. 52.
Exagonum purga, xv. 53.
Fagopyrum cymosum, xiv. 137.
Fagraea obovata, xiv. 42.
Fedia grandiflora, xiii. 236.
Fitz-Roya Patagonica, xix. 205.
Forsythia viridissima, xv. 150; xvi. 116;
 xix. 146.
Fortunæa Chinensis, xiv. 116.
Franciscea acuminata, xiii. 280.
 — *angusta*, xv. 4.
 — *calycina*, xix. 146.
 — *confertiflora*, xix. 98.
 — *eximia*, xviii. 294.
 — *gracilis*, xvi. 3.
 — *hydrangæformis*, xii. 198.
 — *latifolia*, xviii. 294.
 — *Pohlana*, xiii. 145.
 — *villosa*, xi. 19; xii. 115.
Francoa ramosa, viii. 223.
Frazieria theoides, xviii. 294.
Friesia peduncularis, xiv. 234.
Fritillaria Kotschyana, xii. 199.
 — *pallidiflora*, xviii. 77.
Fuchsia, new vars., viii. 39, 208; x. 169,
 121; xi. 17, 145, 227; xii. 73, 253;
 xiii. 25, 122; xvi. 52; xvii. 27, 267;
 xix. 74, 243, 244, 265, 267.
 — *alpestris*, xi. 63.
 — *baccilaris*, xviii. 99.
 — *cordifolia*, ix. 241.
 — *corymbiflora*, ix. 1.
 — *integrifolia*, x. 161.
 — *macrantha*, xiv. 121.
 — *nigricans*, xviii. 124.
 — *radicans*, ix. 259; x. 18, 97.
 — *serratifolia*, xiii. 193.
 — *spectabilis*, xvi. 145.
 — *tetradactyla*, xvi. 200.
 — *venusta*, xviii. 196.
Fugosia heterophylla, xiv. 89.
Funkia grandiflora, xvii. 267.
Gaillardia cornuta, x. 211.
 — *pieta tricolor*, xix. 244.
Galanthus plicatus, xviii. 149.
 — *reflexus*, xiii. 138.
Galeandra Baueri, viii. 223.
 — *cristata*, xii. 270.
 — *Devoniana*, xix. 267.
Gardenia amæna, xi. 264.
 — *Boweriana*, xiv. 235.
 — *Devoniana*, xiv. 305; xv. 265.
 — *Florida*, var. *Fortuniana*, xiv. 289.
 — *longistyla*, xv. 243.
 — *mallifera*, xv. 147.
 — *nitida*, xvi. 4.
 — *Sherbournii*, xi. 263; xvii. 218.
 — *Stanleyana*, xii. 258, 289; xvii. 123.
Gardoquia multiflora, viii. 24.
Garrya laurifolia, viii. 106.
Gastrobium acutum, xi. 240; xii. 245.
 — *cordatula*, viii. 18.
 — *Hugelii*, xviii. 124.
 — *spinosa*, xii. 245.
 — *villosum*, xv. 222.
Gaylussacciecia pseudovaccicum, xiii.
 18, 97.
Gelasine azurea, viii. 55.
Genista bracteolata, viii. 105.
 — *Canariensis*, xii. 139.
 — *Spachiana*, xiii. 305.
 — *virgata*, xii. 63.
Geranium erianthum, x. 257. }
 — *rubifolium*, ix. 40.
 — *Thunbergii*, xix. 52.
Gesneria bulbosa, var. *laterita*, xiv. 211.
 — *cochlearis*, viii. 81.
 — *coruscans*, xvii. 218.
 — *discolor*, x. 114.
 — *elliptica lutea*, xiv. 211, 217; xv.
 198.
 — *Gardneri*, xii. 294; xviii. 3.
 — *Gerardiana*, xiv. 113.
 — *Herberti*, xiv. 235; xvii. 6.
 — *Hondensis*, xiv. 189.
 — *lanata*, x. 20.
 — *Libanensis*, xvi. 29.
 — *longifolia*, x. 19.
 — *macrohiza*, xii. 271.
 — *magnifica*, xvi. 222.
 — *molle*, viii. 198, 249; x. 18.
 — *Murkii*, xi. 19.
 — *pardina*, xvi. 27.
 — *pieta*, xvii. 268.
 — *polyantha*, xi. 63.
 — *Schiediana*, xiii. 114.
 — *Seemanni*, xviii. 99.
 — *triflora*, xvi. 4.
 — *vestita*, xiii. 90.
 — *zebrina*, x. 41; xvii. 6.
Gemm radiatum, x. 90.
Gillies Poiniana, xix. 5.
Gladiolus, new vars., x. 265; xii. 89;
 xiii. 20, 139; xvii. 3; xviii. 196, 295;
 xix. 6.
 — *æquinoctialis*, xi. 18.

- Gladiolus gracilis*, xiii. 139.
 — *oppositiflorus*, xi. 19.
Gloriosa Leopoldiana, xvi. 29.
Glossomæ ovata, x. 41.
Gloxinia, new vars., xi. 241, 249; xiv. 42, 66, 145, 234; xv. 49, 148, 147, 199; xvi. 123, 194; xviii. 295; xix. 195.
 — *Decaisne*, xvii. 242.
 — *digitaliflora*, xi. 263, 273.
 — *discolor*, xi. 43; xii. 198.
 — *fimbriata*, xvii. 75.
 — *Knightii*, xvii. 267.
 — *Perryana*, xvii. 267.
 — *rubra*, ix. 67, 97.
 — *speciosa*, x. 113; xii. 245.
 — *tubiflora*, x. 259; xiii. 41.
 — — *rosea*, xiv. 235.
Glycine Indica, x. 212.
Gmelina Rheedii, xvi. 241.
Goldfussia isophylla, xvi. 98.
Gompholobium barbigerum, xiii. 210.
 — *Hendersonianum*, xi. 43.
 — *Knightianum*, ix. 260.
 — *polymorphum luteum*, xii. 139.
 — *splendens*, xii. 139.
 — *venustum*, xiv. 283.
 — *versicolor*, var. xiii. 257.
 — *Youngianum*, ix. 146.
Gomphrena officinalis, xvi. 267.
 — *pulchella*, xii. 41.
Gongora bufonia, ix. 67.
 — *fulva*, ix. 68.
 — *maculata*, xii. 114.
 — — *Jenishii*, xviii. 242.
 — — var. *tricolor*, xvi. 4.
 — *truncata*, xi. 143.
Gonolobus hispidus, viii. 81.
 — *Martianus*, xvii. 267.
Goodenia grandiflora, xiii. 137.
Goodetiæ albescens, ix. 210; x. 67.
 — *grandiflora*, ix. 211; x. 282.
Goodia pubescens, xvii. 102.
Gordonia Javanica, xviii. 267.
Gordoquia betonicoides, ix. 90.
Govenia fasciata, xiv. 19.
Graellsia saxifragæfolia, xiv. 211.
Grammananthus chloræflora, xviii. 219; xix. 267.
 — *gentianoides*, xviii. 124.
Grammatophyllum multiflorum, viii. 18; xi. 18.
Grevillea, nov. spec., x. 20.
 — *dubia*, viii. 153.
 — *lavendulacea*, xix. 244.
Griffinia hyacinthina, xiii. 253.
 — *Loboniana*, xviii. 124.
Grischovia hirta, xvi. 51.
Gynerium argenteum, xix. 27.
Habecladus biflorus, xiii. 305.
Habranthus pratensis, x. 134.
 — *concolor*, xiii. 280.
Habrothamnus corymbosus, xiv. 19.
 — *cyaneus*, xii. 271.
 — *elegans*, xii. 221.
 — *fasciculatus*, xi. 189; xii. 139.
 — *nobilis*, xiii. 19.
Hæmanthus magnificus, ix. 235.
Hakea cucullata, xviii. 267.
 — *ruscifolia*, ix. 235.
Hardenbergia Comptoniana, xvii. 100.
 — *digitata*, viii. 221, 247; xvii. 100.
 — *macrophylla*, x. 26; xvii. 100.
 — *monophylla variegata*, xii. 139.
 — *ovata*, xvii. 6.
Hebeclinium ianthinum, xix. 93.
Hedychium scoparium, xviii. 29.
Heinsia Jasminiflora, xiv. 42.
Helcia sanguineolenta, xiii. 9; xix. 244. 8.
Helichrysum niveum, ix. 89.
 — *purpureum macranthum*, xvi. 123.
Heliophila trifida, xv. 5.
Heliotrope, new vars. xix. 52, 123.
Helleborus atro rubeus, xix. 123.
 — *Olympicus*, ix. 184; x. 259.
 — *Orientalis*, ix. 184.
Hemiandra emarginata, ix. 235.
 — *pungens*, xix. 93.
Henfrefya scandens, xv. 148.
Hermannia incisa, xi. 63.
Heterocentrum Mexicanum, xvi. 29.
Heteropteris undulata, ix. 114.
Heterotrichum macrodon, xvii. 27.
Hibbertia coriaefolia, x. 20.
 — *Cunninghamia*, xvii. 249.
 — — *perfoliata*, xii. 18.
Hibiscus Cameroni, viii. 129, 249; x. 113.
 — — var. *fulgens*, xii. 138.
 — *liliflorus*, xi. 64.
 — *grossulariæ folias*, xv. 267.
 — *Jerroldianus*, xiv. 67.
 — *moscheatus*, xv. 53.
 — *Wrayæ*, viii. 221; ix. 41.
Higginsia Mexicana, ix. 211.
Hindsia, nov. spec., xvi. 52.
 — *longiflora alba*, xiii. 211.
 — *violacea*, xii. 205.
 — — *alba*, xiv. 25.
Hoitzia coccinea, xiii. 306.
 — *Mexicana*, xii. 139.
Holbolla acuminata, xv. 291; xix. 123.
 — *latifolia*, xiv. 258.
Houlettia Brocklehurstiana, x. 113; xii. 90.
 — *vittata*, x. 18.
Hovea, nov. spec., xi. 264.
 — *illicifolia*, xii. 294.
 — *pungens major*, xi. 113.
 — *racemulosa*, xi. 42.
 — *splendens*, xi. 162.
 — *trisperma*, xii. 138.
Hoya bella, xvi. 267.
 — *campanulata*, xiv. 306; xv. 267; xviii. 295; xix. 50.

- Hoya cinnamifolia*, xvi. 27.
 — *coriacea*, xviii. 149.
 — *Cunninghamii*, xvii. 3; xix. 268.
 — *imperialis*, xv. 5; xvi. 176, 242.
 — *mollis*, xiv. 235.
 — *ovalifolia*, xviii. 267; xix. 50.
 — *pallida*, xviii. 268; xix. 50.
 — *parasatica*, xiv. 235.
 — *purpurea-fosca*, xviii. 149; xix. 49.
Hybothera cordifolia, xiii. 90.
Hydrangea Japonica, xii. 294.
 — — *var. cærulea*, xiv. 258.
Hydrolea spinosa, xiii. 211; xv. 5.
Hydromestus maculatus, xi. 133; xix. 27.
Hydrotentia meleagris, x. 185.
Hymenocallis vistubata, xii. 199.
 — *Panamensis*, ix. 235.
Hymenoxis Californica, viii. 247.
Hypocalymna robusta, xi. 63.
 — *suavis*, xii. 138.
Hypocalyptus obcordata, ix. 233.
Hypocyrtia glabra, xvi. 127.
 — — *gracilis*, xviii. 220.
 — — *leucostoma*, xv. 197.
Ilex cornuta, xviii. 124.
 — — *Paraguayensis*, xi. 188.
 — — *platyphylla*, xii. 113.
Impatiens glanduligera, viii. 105.
 — — *platypetala*, xv. 6.
 — — *repens*, xvi. 267.
 — — *rosea*, ix. 69.
Indigofera decora, xiv. 113; xvii. 290.
 — — *gracilis*, xvii. 101.
 — — *stachyoides*, xi. 90.
Inga pulcherrima, x. 20; xii. 205.
Ipomœa, nov. spec., xiv. 235; xvii. 268.
 — — *batatoides*, ix. 183.
 — — *cymosa*, xi. 133.
 — — *Hardingii*, ix. 259; xii. 294, 301.
 — — *Learii*, viii. 184.
 — — *longiflora*, viii. 105.
 — — *oblongata*, xix. 268.
 — — *platensis*, ix. 66.
 — — *pulchella*, xv. 148.
 — — *splendens*, viii. 56.
 — — *Tweediei*, x. 281.
Iris aurea, xv. 292.;
 — — *setosa*, xv. 53.
 — — *stylosa*, xiv. 19.
Ischia Guianensis, x. 212.
Isochilus carnosæflora, xii. 271.
Isometris arborea, ix. 41.
Isopogon scaber, xi. 240; xii. 245.
Ixiolirion montanum, xiii. 18; xiv. 234.
Ixora, nov. spec., xiii. 259.
 — — *barbata*, viii. 106; x. 260; xviii. 124.
 — — *hydrangeiformis*, xv. 198.
 — — *incarnata*, viii. 56, 107.
 — — *lanccolaria*, xvi. 267.
 — — *laxiflora*, xviii. 3.
Ixora obovata, viii. 106.
 — — *rosea*, viii. 106.
 — — *salicifolia*, xviii. 195.
 — — *sessilis*, xi. 265.
Jacaranda mimosæfolia, xii. 222; xiii. 73.
Jacksonia, nov. spec., viii. 56.
Jambosa Malacensis, xvi. 291.
Jaquemontia canescens, xv. 125.
Jasminum affine, xiii. 137.
 — — *ligustrifolium*, xi. 64.
 — — *nudiflorum*, xiv. 258; xvi. 52, 242.
 — — *subulatum*, x. 210.
Jatropha podagrica, xvi. 146.
Johnsonia hirta, viii. 18.
Jonesia Asoca, xix. 27.
Justicia, nov. spec., xiii. 306, 307.
 — — *attenuata*, x. 20.
Kennedyia eximia, xvii. 75.
 — — *Marryatti*, xii. 115.
 — — *rubicunda*, xvii. 100.
Kopsia fruticosa, xiv. 89.
Labichea diversiflora, xix. 219.
Lacæna bicolor, xi. 246.
Lælia acuminata, ix. 91; xi. 113.
 — — *anceps*, xvii. 6.
 — — *autumnalis*, viii. 198.
 — — *majalis*, xiii. 60.
 — — *peduncularis*, xiv. 19.
 — — *superbiens*, xii. 169.
Lagerstræmia elegans, xvi. 28.
Logetta lintearia, xviii. 77.
Lantana delicatissima, xviii. 220.
 — — *Sellowii*, xvii. 271.
Lapageria rosea, xvii. 157; xviii. 121, 295; xix. 295.
Lancasteria parviflora, xiv. 89.
Lardizabala bitemata, xviii. 78.
Lathyrus nervosus, xi. 18.
 — — *pubescens*, xi. 63.
Laurus pumeo, xiii. 139.
Laxmannia grandiflora, viii. 18.
Leianthus longifolius, xiii. 210; xiv. 90.
 — — *umbellatus*, xiv. 211.
Leiospermum racemosum, viii. 250.
Lennia robinoides, xiii. 65.
Leochilus herbaceus, xiii. 20.
 — — *sanguincolentus*, xiii. 20.
Leschenaultia, nov. spec., viii. 250.
 — — *arcuata*, xv. 24.
 — — *biloba*, ix. 137.
 — — *splendens*, xiv. 258; xv. 13.
Leucocoryne alliacea, xii. 169.
Leucothoe pulchra, xv. 147; xix. 219.
Liatris propiulca, viii. 248.
Libocedrus Chilensis, xviii. 125.
 — — *tetragona*, xviii. 125.
Liebigia speciosa, xiv. 306; xv. 222.
Ligustrum Japonicum, xix. 268.
Lilium Loddigesianum, xix. 268.
 — — *sanguineum*, xiv. 258.
 — — *smicum*, xix. 248.

- Lilium speciosum*, xiv. 235.
 ——— album, x. 213.
 ——— punctatum, x. 213.
 ——— Thompsonianum, xiii. 41.
 ——— Wallichianum, xix. 52.
Linaria glandulifera, ix. 91.
Lindenia rivalis, ix. 210.
Lindleya mespiloides, xii. 138.
Linum trigynum, xii. 113.
Liparia parva, xi. 218.
 ——— pinnatifida, xiv. 193.
Lisianthus acutangulus, xv. 243.
 ——— glaucifolius, xii. 295.
 ——— glaucophyllus, xiii. 259.
 ——— longiflorus, xiii. 306.
 ——— princeps, xviii. 217.
 ——— pulcher, xvii. 52.
 ——— Russellianus, xi. 241.
Lisimachia lobelioides, ix. 235.
Lissochilus roseus, xii. 63.
Loaza Herbertia, x. 212.
 ——— Pentlandica, x. 67.
 ——— pieta, xvii. 53.
 ——— lucida, xii. 271.
Lobelia bicolor, ix. 259.
 ——— densiflora, xvii. 99.
 ——— erinus, var. compacta alba, xiv. 114.
 ——— glandulosa, xiv. 42.
 ——— ignea, viii. 24.
 ——— longiflora, xi. 241.
 ——— magnificent, xviii. 220.
 ——— pyramidalis, ix. 259.
 ——— ramosa, xviii. 220.
 ——— Texensis, xiii. 89.
 ——— thapsoides, xiii. 114.
Lomatia illicifolia, xi. 161.
Lonicera discolor, xv. 222.
 ——— diversifolia, xii. 169.
 ——— tartarica punicea, xix. 27.
Lopimea malacophylla, xvi. 99.
Lopeya lineata, viii. 106, 177.
Luculia gratissima, viii. 63; xii. 116; xvii. 291.
 ——— Pinciana, xiii. 49, 413.
Lupinus affinis, xvi. 291.
 ——— arvensis, xii. 41.
 ——— ramosissimus, xiii. 137.
Luvunga scandens, xviii. 196.
Luxemburgia ciliosa, xi. 279.
Lycaste chrysoptera, xviii. 268.
 ——— fulvescens, xiii. 305.
Lycaste plana, xi. 188.
 ——— Skinneri, xii. 64.
Lychnis, nov. spec., xiv. 283.
 ——— mutabilis, xi. 242.
Lycium fuchsoides,^Fxiii. 88; xiv. 265.
Lyonia Jamaicensis, xv. 6.
Lysimachia candida, xix. 244.
 ——— lobelioides, x. 41.
Macleania angulata, x. 281.
 ——— cordata, xviii. 29.
 ——— insignis, xii. 115.
Macleania longiflora, xii. 138.
 ——— punctata, xvii. 53.
Macropodium nivale, viii. 197.
Magnolia Hartwicens, xii. 115.
Malesherbia thyrsoiflora, xviii. 268.
Malva campanulata, viii. 199; ix. 259.
 ——— Creeana alba, xi. 242.
 ——— laterita, ix. 67.
 ——— purpurata, viii. 198.
 ——— suaveolens, viii. 55; xiii. 97; xvii. 291.
Manettia bicolor, x. 217.
 ——— splendens, xi. 64.
 ——— uniflora, xiv. 43.
Marctia excoriata, xi. 161.
Marianthus cæruleo-punctatus, x. 18.
Marica humilis, var. lutea, viii. 177.
Martynia fragrans, ix. 67; x. 161; xv. 100.
 ——— lutea, xii. 222.
Masdevallia cupreata, xii. 19.
 ——— fenestrata, xiii. 185.
Mastacanthus sinensis, xiv. 42.
Maxillaria acutipelata, x. 258.
 ——— barbata, ix. 211.
 ——— candida, ix. 91.
 ——— concava, xii. 64.
 ——— cruenta, x. 89.
 ——— cucullata, viii. 55.
 ——— galatea, xi. 43.
 ——— Harrisoniana alba, xi. 242.
 ——— jugosa, ix. 184.
 ——— leptosepala, xvii. 99.
 ——— Lyonii, xiii. 89.
 ——— meleagris, xii. 64.
 ——— placanthera, ix. 184.
 ——— purpurascens, ix. 211.
 ——— rugosa, xi. 279.
 ——— scabrilonguis, xii. 270.
 ——— Skinneri, x. 67.
 ——— triangularis, xiii. 65.
Medinella erythrophylla, xi. 132.
 ——— Javanensis, xix. 74.
 ——— magnifica, xviii. 149.
 ——— Sieboldiana, xviii. 268.
 ——— speciosa, xv. 199.
Melastoma Niveniana, xiii. 306.
 ——— sanguinea, xiv. 42.
Menanthus cærulea punctata, ix. 233.
Mesembryanthemum tricolor, x. 282.
Metrosideros buxifolia, xviii. 150.
 ——— florida, xvii. 268.
 ——— tomentosa, xviii. 30.
Microsperma Bartonoides, xviii. 30.
Microstylis histionantha, xii. 222.
Miltonia candida, viii. 106.
 ——— cuneata, xii. 114; xiii. 65.
 ——— Karwinskii, xvi. 222; xvii. 76.
 ——— spectabile, viii. 197.
 ——— spectabilis, var. purpurea violacea, xvii. 53.
Mimosa Uruguensis, x. 160; xix. 295.

- Mimulus aurantia superba*, xviii. 150.
 — *moschatus maculatus*, x. 211.
 — *roseus*, x. 67.
 — *rubinus*, xviii. 150.
 — *tricolor Hartwegii*, xvii. 271.
Mina lobata, x. 43.
Mindia speciosa, xvii. 28.
Minima Chrysanthemums, xix. 299.
Mirabilis, vars., xvii. 271.
Mirbelia Baxterii, x. 20.
 — *illicifolia*, xv. 199.
 — *Meisnerii*, xvii. 27.
 — *speciosa*, ix. 258; xiii. 139.
Mitraria coccinea, xvi. 220, 241; xvii. 123.
Monarda albiflora, xix. 6.
 — *amplexicaulis*, xix. 6.
 — *contorta*, xix. 6.
Monardella undulata, xvi. 291.
Monocanthus longifolius, viii. 223.
Monolopia major, ix. 41.
Morina longifolia, viii. 196; xii. 169.
Mormodes aromaticus, ix. 259.
 — *atro-purpurea*, xix. 123.
 — *buccinator*, x. 19.
 — *Cartoni*, xiv. 67.
 — *lineatum*, ix. 184; x. 210.
 — *luxatum*, x. 211; xi. 188.
 — *pardina*, ix. 258.
Moussonia elegans, xviii. 268.
Mulgedium macrorhizon, xiv. 89.
Musa superba, ix. 66.
Mussaenda macrophylla, xiii. 281; xiv. 137.
Mycaranthus obliqua, viii. 249.
Myoporium serratum, xiii. 88.
Myosotis Azorica, xii. 294; xiii. 1.
Myranthus spinosa, viii. 195.
Myrtus orbiculata, xix. 27.
Napoleona imperialis, xii. 295; xvi. 139.
Narcissi, new vars., xix. 147, 268.
Navaretia squarrosa, xv. 292.
Nelumbium Caspicum, xii. 90.
 — *speciosum*, x. 41.
Nematanthus ionema, xvii. 218.
 — *longipes*, xi. 161.
Nemophila atomaria, viii. 39.
 — *discoidalis*, xi. 122.
 — *maculata*, xvii. 124.
Nepenthes Rafflesiana, xv. 75.
Neptunia plena, xiv. 43.
Nerium Tangleii, xii. 113, 121; xviii. 220.
Neumarina imbricata, x. 213.
Niphaea albo-lineata, xv. 53.
 — *oblonga*, ix. 259; x. 19; xi. 43.
 — *rubida*, xiv. 283.
Noruntia Brasiliensis, xi. 264.
Nuttallii cerasiformis, xviii. 125.
Nymphæa, nov. spec., xvi. 4.
 — *ampla*, xvii. 268.
 — *dentata*, xiv. 283.
Nymphæa elegans, xix. 244.
 — *micrantha*, xviii. 242, 295.
 — *rubra*, xiii. 41; xix. 195.
Oberonia cylindrica, viii. 129.
 — *miniata*, xi. 43.
Octomeria grandiflora, x. 260.
Odontoglossum Cervantesii, xiii. 210
 xviii. 198.
 — *citrosimum*, xi. 42.
 — *cordatum*, xiv. 234.
 — *grande*, x. 158.
 — *hastilabatum*, xv. 6.
 — *læve*, xii. 198.
 — *maculatum*, viii. 152.
 — *membranaceum*, xiii. 138; xiv. 180.
 — *nævium*, xviii. 220.
 — *pulchellum*, ix. 234; xii. 122.
Ænetochilus setacea, xiii. 139.
Ænothera Drummondii, xvii. 270.
 — *fruticosa Indica*, ix. 65.
Olinia acuminata, ix. 211.
 — *cymosa*, ix. 211.
 — *leucochylum*, ix. 41.
 — *longifolium*, ix. 91; x. 41.
 — *macrantherum*, ix. 67.
Oncidium, nov. spec., xi. 43, 90, 133,
 189.
 — *amicatum*, xvi. 4.
 — *barbatum*, x. 259.
 — *Barkerii*, xv. 148.
 — *bicallosum*, xiii. 89.
 — *bicolor*, xii. 18.
 — *curtum*, xvi. 5.
 — *ensatum*, x. 90.
 — *flabelliferum*, xvii. 99.
 — *gallopavinum*, xiii. 138.
 — *hæmatochilum*, xviii. 99.
 — *Huntianum*, viii. 197.
 — *incurvum*, viii. 249; xiii. 305.
 — *Insleyii*, viii. 129; x. 42.
 — *lacerum*, xii. 138; xiv. 19.
 — *luridum*, xix. 52.
 — *monoceras*, ix. 209.
 — *oblongatum*, xii. 64.
 — *ornithorhynchum*, viii. 55.
 — *pachyphyllum*, viii. 177.
 — *pallidum*, viii. 199.
 — *papilio*, xii. 114.
 — *pelicanum*, xvi. 5.
 — *pergamenum*, x. 42.
 — *ramosum*, viii. 221.
 — *Rigbyanum*, xvii. 268.
 — *sessile*, xviii. 242.
 — *sphacelatum*, x. 133.
 — *spilopterum*, xvi. 267.
 — *stramineum*, viii. 81.
 — *Suttonii*, x. 42.
 — *tricolor*, xiii. 19.
 — *trilingue*, xviii. 125.
 — *urophyllum*, x. 258.
 — *variegatum*, xix. 27.
 — *Wrayæ*, ix. 66.

- Onobrychis radiata*, xv. 197.
Ophelia corymbosa, xviii. 30.
 — *purpurascens*, viii. 221.
Ophiopogon prolifer, xiv. 211.
Opuntia decumbens, x. 19.
 — *monocantha*, x. 19.
 — *Salmiana*, xviii. 269.
Ornithidium miniatum, xiii. 258.
Ornithogalum aureum, xiii. 258.
 — *divaricatum*, ix. 184.
Orobis lathroides, x. 212.
Orothamnus Zeyheri, xvi. 75.
Orphium frutescens, xiv. 305.
Orthosiphon incurvum, ix. 67.
Orthrosanthes multiflora, xiii. 19.
Osbeckia canescens, viii. 105.
 — *stellata*, xii. 269.
Otochilus fusca, x. 42.
Othonna tuberosa, xi. 240; xii. 246.
Oxalis Boweii, xvii. 291.
 — *discolor*, xiii. 66.
 — *elegans*, xvii. 242; xviii. 25.
 — *fruticosa*, ix. 91.
 — *lasiandra*, ix. 234.
 — *Martiana*, x. 113.
 — *rubrocincta*, x. 282.
 — *sensativa*, xiv. 19.
Oxylobium acutum, xii. 115.
 — *capitatum*, ix. 138; xi. 90.
 — *obovatum*, xi. 188.
Oxyramphis necrostyla, xiv. 137.
Oxyspora vigans, x. 6.
Pachiria longiflora, xix. 7.
Pachystigma pteleoides, xvii. 99.
Paeonia Moutan, new vars., xvi. 221; xvii. 272; xviii. 242; xix. 27.
 — *Whitmannia*, xiii. 259; xiv. 67.
Pansies, new vars., viii. 160; xv. 121.
Passiflora actina, xi. 113.
 — *amabilis*, xvi. 291.
 — *difformis*, xiv. 43.
 — *Kermesina*, var. *Lemicheziana*, xv. 222.
 — *Medusæa*, xviii. 220; xix. 7.
 — *Middletoniana*, x. 114.
 — *Neillii*, viii. 250.
 — *Newmanua*, xvii. 27.
 — *onychina*, viii. 63.
 — *penduliflora*, xix. 75.
 — *verrucifera*, viii. 199, 223. †
Paulownia imperialis, ix. 42; x. 193.
Pavetta Borbonica, xiii. 138.
 — *Caffra*, viii. 107.
Peach, double white, xviii. 124.
Pedicularis megalanthera, x. 210.
 — *mollis*, xix. 244.
 — *pyramidata*, ix. 235.
Pelargonium, new vars., viii. 256; ix. 169; x. 241; xi. 201; xiii. 217; xiv. 244; xv. 223, 225; xviii. 135, 195, 232, 233; xix. 193, 219, 268, 269.
 — *scarlet*, new vars., xv. 144; xvii. 99, 102, 271; xviii. 52, 145, 233; xix. 195, 196, 245.
Pentadynamis incana, xviii. 150.
Pentas carnea, xii. 138, 145.
Pentlandia miniata, viii. 18.
Pentstemon, nov. spec., xix. 99.
 — *azureum*, xviii. 150, 193.
 — *Clowesii*, xvii. 102; xviii. 220.
 — *cordifolia*, xvii. 242; xviii. 52.
 — *cyananthus*, xvii. 242; xix. 242.
 — *gentianoides alba*, xv. 241.
 — *gigantea elegans*, xiv. 73.
 — *Gordonii*, xv. 223.
 — *Hartwegii*, xviii. 244.
 — *heterophyllus*, ix. 66; xviii. 150.
 — *lanceolata*, xvi. 147.
 — *miniatus*, xv. 77.
 — *ovatum caeruleum*, xvii. 123.
 — *Shepherdii*, xviii. 244.
 — *Verplanckii*, xvii. 76.
 — *Wrightii*, xix. 242.
Peristeria Barkerii, xiv. 43.
 — *Humboldtii*, xi. 114; xiii. 137.
Pernetia angustifolia, ix. 209.
Persea gratissima, xix. 123.
Petalidium barlerioides, xi. 279.
 — *Bignonianum*, x. 212.
Petrea stapeliæ, xi. 64.
 — *volubilis*, xi. 64.
Petunia, new vars., xii. 301; xviii. 198.
Phacelia fimbriata, ix. 210.
Phædranassa chloracra, xiii. 89.
Phælanopsis amabile, xiii. 139.
Phajus bicolor, xii. 114.
 — *grandiflorus intermedius*, xviii. 80.
 — *maculatus*, x. 210.
Pharbitis cathartica, xv. 77.
 — *limbatus*, xviii. 30; xix. 7, 73.
 — *ostrina*, x. 258; xi. 18.
Phaseolus lobatus, xii. 90.
Philadelphus Mexicanus, ix. 184; x. 185.
 — *satsum*, xix. 245.
Phlogacanthus curbisflorus, viii. 81.
Phlomis Cashmeriana, xii. 113; xiii. 236.
 — *simplex*, ix. 184.
Phlox, new vars., xi. 73; xiii. 49; xvi. 28, 76, 121.
Phycella obtusa, xiii. 20.
Phyllocactus anguligera, xix. 52.
 — *caulorrhizus*, xix. 7.
Physianthus auricornus, ix. 209; xiii. 90.
Physochlaina grandiflora, xix. 245.
Physurus pictus, xii. 199.
Picotee, new vars., xv. 217, 245; xvii. 270, 292; xviii. 285.
Pilumna fragrans, xii. 270.
 — *laxa*, xii. 270; xiv. 283.
Pimelia Hendersoni, ix. 260.
 — *hypericium*, xii. 139.
 — *intermedia*, viii. 56.
 — *macrocephala*, xviii. 295.
 — *Nepergiana*, xviii. 221.

- Pimelia spectabilis*, ix. 69; x. 161.
 — *Verschaffettii*, xviii. 125.
Pink, new var., xiii. 241.
Pistra stratioides, xix. 53.
Pitcairnia Jacksonii, xviii. 269.
 — *micrantha*, xi. 134.
 — *undulata*, xi. 133; xiv. 211.
Placea ornata, ix. 234.
Plantia flava, xiii. 20.
Platycerium bifforme, xiv. 43.
 — *stemmaria*, xiv. 43.
Platycodon Chinense, xix. 296.
 — *grandiflora*, xiv. 67.
Platylobium formosum, xiv. 283.
 — *Murrayanum*, viii. 57.
 — *parviflorum*, xii. 294.
Pleione, nov. spec., xix. 75, 196.
Pleroma Benthalianum, xi. 113.
 — *elegans*, xiv. 283; xvii. 269.
 — *Kunthiana*, xiii. 210; xvii. 3.
 — *petiolata*, xiii. 42.
Pleurothallis recurva, ix. 68.
 — *seriata*, viii. 249.
Plumbago, nov. spec., xv. 199.
 — *Capensis*, xii. 139.
 — *Larpenæ*, xvi. 1.
 — *Zeylanica*, xiv., 284.
Plumieria acuminata, x. 185.
Podalyria stracifolia, xii. 116.
Pogonia plicata, ix. 210.
Poinciana Gilliesii, xi. 114.
Poinsettia pulcherrima, xix. 298.
 — *lutea*, ix. 42.
Polemonium cæruleum, viii. 178.
Polygala juucea, xv. 199.
 — *myrtifolia*, xvii. 6.
Polygonum Brunonis, xix. 75.
 — *vaccinifolium*, xix. 75, 124.
Ponera striata, x. 90.
Porphyrocoma lanceolata, xiii. 236;
 xv. 100.
Portlandia platantha, xix. 27.
Portulacca splendens, xi. 188.
 — *Thellusonii*, viii. 160.
Potentilla, new vars., xix. 53, 99, 296.
 — *bicolor*, xiii. 306.
 — *Garneriana*, viii. 232.
 — *insignis*, ix. 184.
 — *Mac Nabiana*, xiv. 306.
 — *Menziesii*, xvii. 4.
Primula auricula nigra plena, xviii. 151.
 — *capitata*, xix. 7.
 — *denticulata*, x. 210.
 — *involutrata*, xix. 296.
 — *Munroi*, xv. 77.
 — *Sikkimensis*, xix. 220.
 — *Stuartii*, xvi. 75.
Promenæa lentiginosa, xvii. 291.
 — *Stapelioides*, xvii. 291.
Prondya elegans, xiii. 185.
Prostranthera lasianthus, xvi. 123.
 — *rotundifolia*, viii. 250.
Protea longiflora, ix. 211.
Pterodiscus speciosus, xii. 270, 277.
Pterostigma grandiflora, xv. 247.
Pultenæa brachytropis, ix. 138.
 — *ericoides*, xix. 146.
Puya Altensteinii, var. *gigantea*, xv. 197.
 — *cærulea*, viii. 56.
 — *heterophilla*, ix. 41.
 — *Maidifolia*, xviii. 269.
 — *recurvata*, xi. 133.
Pyxidantha barbulatea, xix. 196.
Querass glaber, viii. 250.
Quisqualis Sinensis, xii. 90.
Ranunculus, new vars., viii. 136; ix. 25;
 xviii. 161, 162; xix. 9, 145, 147.
Raphistemma pulchella, xiv. 306; xv.
 77.
Reevesia thyrsoides, xiv. 19.
Renanthera matutina, xi. 218.
Rhipsalis brachiata, xii. 246.
 — *pachypra*, xix. 7.
Rhododendron, new vars., viii. 177, 199,
 248; x. 133, 160; xi. 133, 218; xii.
 18, 115; xiii. 139; xv. 148, 150; xvi.
 99, 196, 197; xvii. 123, 135, 219, 291;
 xviii. 125, 221; xix. 124, 269.
 — *Jasminiflorum*, xviii. 135, 198.
 — *Javanicum*, xv. 244, 292.
 — *Neilghericum*, xvi. 195.
Rhodoleia Championi, xviii. 100.
Rhodosthema gardenioides, xiii. 259.
Rhodothamnus Kamchaticus, xviii. 269.
Rhus diversiloba, xii. 211.
Rhynchoglossum Zeylanicum, xiv. 19.
Rhynchospermum Jasminoides, xiv.
 115; xviii. 269.
Ribes album, xi. 114, 169.
 — *Menziesii*, xv. 268.
 — *sanguineum fl. pl.*, xiii. 210.
Rigidella flammea, viii. 82; ix. 41.
 — *maculata*, ix. 211.
 — *orthantha*, xiv. 116.
Rodriguezia crispa, viii. 223.
 — *maculata*, ix. 43.
Roellia ciliata, x. 211; xi. 97.
Rogiera amæna, xviii. 295.
 — *cordata*, xix. 99.
Rondeletia longiflora, xii. 139; xiii. 121.
 — *odorata*, x. 186.
 — *speciosa major*, xviii. 31.
 — *versicolor*, xix. 124.
Roscola lutea, ix. 235.
Rose, new vars., ix. 193; xi. 218, 263;
 xv. 246; xvi. 147; xvii. 270; xviii.
 42, 73, 196, 296; xix. 49.
Rossiæa paucifolia, ix. 184; x. 260.
RouPELLIA grata, xvii. 243; xviii. 221.
Royena lucida, xiv. 211.
Ruellia lilacina, xiii. 89; xiv. 89.
 — *macrophylla*, xiii. 307; xiv. 114;
 xv. 77.
 — *maculata*, xiii. 307.

- Ruellia Purdieana*, xv. 125; xvii. 152.
 — violacea, xv. 199.
Saccolabium ampullaceum, xiv. 114.
 — Blumei, i. 184.
 — miniatum, xv. 268.
 — ochraceum, x. 42.
Sagittaria sagittifolia, xii. 19.
Salpichrod glandulosa, xiii. 237.
Salpizantha coccinea, xiii. 138; xvii. 100.
Salvia, new vars., xviii. 3; xix. 99, 147, 245, 246.
 — azurea, xiii. 89.
 — bicolor, xi. 43.
 — Camertonii, xv. 6.
 — confertiflora, ix. 258.
 — dulcis, ix. 260; xv. 149.
 — gesneriflora, xv. 97; xvi. 100.
 — hians, viii. 200.
 — oppositiflora, xvi. 52, 99.
 — prunelloides, xii. 246.
 — regla, ix. 260.
 — strictiflora, xiii. 19.
 — tubiformis, xiii. 65.
Sarcanthus pallidus, viii. 249.
Sarcochilus calceolus, xiv. 114.
Sarcopodium Lobbi Henshalii, xix. 246.
Sarcostemma campanulatum, xiv. 211.
Satyrrium aureum, xvi. 75.
Sauranja spectabilis, xi. 18.
Saussurea pulchella, x. 89.
Saxa-Gothæa conspicua, xix. 269.
Saxifraga ciliata, xii. 18.
Scabiosa pumila, xii. 139.
Selania oppositifolia, xix. 53.
Schizanthus candidus, xi. 240.
 — retusus albus, xvi. 241.
 — tomentosus, viii. 221.
Schomburgkia crispa, xii. 114.
 — tibicinus, ix. 210.
 — undulata, xii. 114.
Schubertia graveolens, xiv. 114.
Schwerina superba, xvi. 51.
Scutellaria, nov. spec., xiv. 306; xv. 248.
 — cordifolia, xv. 77.
 — incarnata, xiv. 306.
 — Japonica, xi. 188.
 — macrantha, xvii. 28.
 — splendens, ix. 211; x. 260; xi. 161.
 — ventenatii, xv. 6.
Scypanthus elegans, x. 211; xi. 241.
Sedum Kamtschaticum, xiv. 115.
Selago distans, xiii. 236.
Sericographus Ghiesbreghtiana, xvi. 242.
Sida Bedfordiana, ix. 234.
 — graveolens, xiii. 42.
 — integerrimæ, xvi. 75.
 — Pæoniflora, xiii. 211.
 — picta, ix. 42.
 — venosa, xvii. 243.
 — vitifolia, xiv. 137.
Sidophyllum longifolium, xiii. 138.
Silene Schaftii, xiv. 114.
 — speciosa, xi. 279.
Sinningia velutina, xiv. 67.
Sipanea carnea, xii. 19.
Siphocampylus, nov. spec., xiv. 235.
 — amænus, xix. 220.
 — betulæfolius, x. 259.
 — coccinea, xiii. 146.
 — cordatus, xv. 73.
 — glandulosus, xv. 268; xvi. 166.
 — lævigatus, xviii. 198.
 — lantanifolius, xii. 222.
 — lasiandrus, xviii. 199.
 — longipedunculatus, xi. 133.
 — microstoma, xv. 73.
 — mollis, xviii. 198.
 — mitida, xiv. 235.
 — parthoni, xii. 45.
 — polyphyllus, xviii. 199.
 — pubescens, xvi. 129.
 — Schlimmianus, xviii. 198.
Smeathmannia lævigata, xiii. 306.
Smithia purpurea, xv. 53.
Sobralia macrantha, x. 211; xvii. 151.
 — sessilis, ix. 68; xix. 75.
Solandra lævis, xvi. 28.
Solanum betaceum, viii. 128.
 — crispum, ix. 259.
 — concavum, x. 211.
 — Jasminoides, xv. 149.
 — macrantherum, viii. 249; ix. 65; xiii. 65.
 — Rossii, viii. 129.
 — uncinellum, viii. 82.
Sophronites violacea, viii. 129.
Sowerbia laxiflora, ix. 66.
Sparaxis, vars., ix. 121; xii. 271.
Spathodea lævis, xviii. 269.
Spathoglottis Fortunii, xiii. 114.
 — aurea, xviii. 31.
Spirea callosa, xix. 269.
 — decumbens, xviii. 78.
 — Douglassii, xix. 220.
 — fissa, viii. 248; x. 42.
 — Kamtschatica, var. Himalensis, ix. 68.
 — laxiflora, xix. 246.
 — Lindleyana, xiii. 186.
 — prunifolia plena, xv. 100.
 — pubescens, xv. 150.
 — rotundifolia, viii. 221.
 — vaccinifolia, viii. 82.
Spiranthus cerina, x. 90.
 — lobata, xiii. 138.
Spiromema fragrans, viii. 106.
Sprekelia cybister, viii. 196.
 — glauca, viii. 199.
Stachys Downesii, ix. 217.
Stachytarpheta, nov. spec., xiii. 307.
 — aristata, xiv. 67; xv. 248.
Stanhopea Barkeri, viii. 221.
 — Bucephalus, xiii. 138.

- Stauhopea guttata*, xi. 280.
 — *inodora*, xiv. 19.
 — *Martina*, viii. 199.
Stapelia cactiformis, xiii. 19.
Statice eximia, xv. 27.
 — *Fortuni*, xiii. 306.
 — *frutescens*, xvi. 129.
 — *macrophylla*, xii. 295.
 — *monopetala*, x. 259.
 — *platypetala*, xi. 265.
 — *pseudo-armeria*, xii. 138.
 — *rytidophilla*, xii. 18.
Stemonocanthus macrophyllus, xvii. 152.
Stenocarpus Cunninghamii, xiv. 306.
Stenomesson latifolium, viii. 196.
Stenorhynchus cinnabarinus, xvi. 5.
Stephanotus floribundus, xii. 18, 49.
 — *Thonarsii*, xii. 145.
Stiffia chrysantha, xvii. 100.
Stigmaphyllon ciliatum, ix. 235; xvi. 122, 222.
 — *heterophyllum*, xi. 132.
 — *Jatrophaefolium*, xii. 64.
Stocks, new vars., xviii. 198.
Strobilanthus lactatus, xvi. 99.
 — *scabrilla*, viii. 56.
 — *sessilis*, ix. 258.
Stuartia pentagynia, x. 42.
Stylidium Brauonianum, x. 89.
 — *fasciculatum*, viii. 198.
 — *mucronifolium*, xviii. 270.
 — *pilosum*, x. 186.
 — *proliferum*, ix. 138.
 — *recurvum*, x. 19.
 — *scandens*, xvi. 221.
Styphelia tubiflora, xiii. 89.
Suraja spectabilis, xii. 139.
Swainsonia coronillaefolia, xvi. 291.
 — *Greyiana*, xv. 7; xvii. 4.
Symplocis Japonica, xviii. 151.
Syringa Emodi, xiii. 42.
Tabernaemontana coronaria, fl. pl., xviii. 27.
 — *dichotoma*, ix. 258.
 — *longiflora*, xviii. 4.
Tacsonidium pinnatum, xii. 115.
 — *sempervirens*, xii. 115.
Tacsonia manicata, xviii. 296; xix. 73.
 — *mollissima*, xiii. 280.
 — *pinuastipula*, xviii. 296.
Tagetes corymbosa, viii. 248.
Talauma Candollii, xiv. 258.
Talinum teretifolium, xi. 42.
Tamarindus officinalis, xix. 53.
Tasmania aromatica, xiii. 236.
Tecoma leucoxydon, xvi. 222.
Templetonia glauca, xii. 139; xviii. 81.
Tetranema Mexicana, xii. 64; xiii. 258.
Tetranthera Japonica, x. 20.
Tetratea hirsuta, xiii. 19; xiv. 49.
 — *verticillata*, xiv. 180; xviii. 80.
Thalicttrum cultratum, viii. 178.
Theophrasta Jussiaei, xiv. 211.
Thibaudia macrantha, xix. 75.
 — *microphylla*, xvi. 28.
 — *Pichinchensis glabra*, xvi. 6.
 — *pulcherrima*, xv. 149.
 — *scabrinscula*, xviii. 199.
Thuja filiforme, viii. 250.
Thunbergia chrysops, xii. 198, 253.
 — *Doddsii*, xvi. 268.
Thysacanthus bracteolatus, xvii. 123.
 — *lilacinus*, xix. 220.
 — *strictus*, xvi. 147.
Tigridia conchiflora, xv. 100.
 — *lutea*, xiii. 66.
 — *violacea*, ix. 211.
Tillandsia rubida, x. 282.
 — *vitellina*, xiii. 66.
Tithonia ovata, ix. 258.
Torenia Asiatica, xiv. 145; xv. 226; xvii. 6, 311.
 — *cordata*, xiv. 217.
 — *edentulata*, xiv. 157.
Trachelium linearis, xiii. 307.
Trachymene lilacina, viii. 56.
Tradescantia iridescens, viii. 196.
 — *tumida*, viii. 177.
 — *Zebrina*, xiii. 139.
Trechopila suavis, xviii. 151.
Trichophylla coccinea, xix. 220.
Trichosanthes colubrina, xiv. 114.
Trichosma suavis, x. 113.
Trifolium incarnatum, viii. 200.
Trimezia Meridensis, xiii. 20.
Triptilion spinosum, xii. 41, 49.
Tritonia aurea, xv. 293; xvi. 51, 97.
Trochetia grandiflora, xii. 114.
Trollius acaulis, xi. 161.
Tropeolum azureum, xi. 1.
 — *Brickwoodii*, xiii. 146.
 — *edule*, x. 186, 193.
 — *Lobbianum*, xiii. 25.
 — *Moritzianum*, ix. 68, 98.
 — *pendulum*, xix. 124.
 — *polyphyllum*, xi. 241.
 — *Smithii*, xvi. 197.
 — *speciosum*, xv. 195.
 — *tricolorum*, var. *Jarrattii*, xv. 199.
 — *umbellatum*, xv. 293.
 — *Wagnerianum*, xviii. 49.
Tryalis brachyceras, viii. 249.
Trymalium odoratissimum, xv. 199.
Tulip, new vars., xi. 25, 225; xviii. 31, 53, 199.
Tulipa maleoleus, viii. 18.
 — *tricolor*, ix. 210.
Turnera ulmifolia, xiii. 42.
Turraea lobata, xi. 242; xii. 41, 49.
Vaccinium leucostomum, xvi. 148.
 — *Rollissonii*, xix. 297.
Valeriana uapus, viii. 249.
Vanda Batemanni, xiv. 306.
 — *cerulea*, xix. 53.

- Vanda Lowii*, xv. 101.
 — *parviflora*, xii. 199.
 — *teres*, xii. 270.
 — *tessellata*, ix. 68.
 — *tricolor*, xix. 99.
 — *violacea*, xv. 149.
Vanilla palmara, x. 258.
Vasalia floribunda, xiii. 146.
Verbascum Tauricum, viii. 153.
Verbena, new vars., viii. 128, 160, 184;
 ix. 234; x. 211, 212, 217; xv. 245;
 xvii. 152, 271; xix. 28.
Vernonia azilliflora, xv. 247.
Veronica Andersonii, xix. 76.
 — *axillaris*, xiv. 284.
 — *axilliflora*, xvi. 52.
 — *formosa*, xviii. 126.
 — *Lindleyana*, xiv. 19.
 — *speciosa*, xii. 18, 97.
 — — var. *Kermesina*, xviii. 221.
Verticordia insignis, viii. 24.
Viburnum, nov. spec., xv. 150.
 — *plicatum*, xv. 244; xviii. 135.
 — — var. *dilatata*, xix. 8.
Victoria regia, xvi. 149.
Viminaria denudata, xv. 198.
Viola lutea, xvi. 138.
 — *Neapolitana arborea*, xiii. 307.
Viscaria oculata, xii. 90, 97.
Vitja litroralis, viii. 250.
Vriesia psittacina, xi. 63.
 — *splendens*, xvi. 197.
Wailesia picta, xviii. 4.
Wallenbergia vincaeflora, xix. 76.
Warrea Lindeniana, xviii. 126.
Weigelia rosea, xv. 145; xvi. 242.
Wenmanni venosa, viii. 129.
Whitfieldia laterita, xiii. 236.
Wigandia Caraccasana, xix. 99.
Wilsonia muara, viii. 57.
Wistaria sinensis alba, xvii. 271.
Zauchneria Californica, xvi. 265; xvii.
 243.
Zichya glabrata, x. 186.
 — *villosa*, ix. 138; xv. 200.
Zieria lævigata, x. 133.
Zygopetalon Africana, viii. 178.



