





D. Hays

Camellia Jap. Alexina (Lour's)

THE
FLORICULTURAL
CABINET,
AND
FLORIST'S MAGAZINE.

Conducted by

Joseph Harrison

Editor of the

GARDENER'S RECORD,

&c.



J. J. Parker

London, Whittaker and C^o Ave Maria Lane.

THE

FLORICULTURAL CABINET

FLORISTS' MAGAZINE

JANUARY TO DECEMBER, 1874

VOLUME XII

CONDUCTED BY JOSEPH HARRISON

DUBLIN: W. & A. GILBERT

LONDON

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1874

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CONDUCTED BY JOSEPH HARRISON,
DOWNHAM NURSERY, NORFOLK.

LONDON :
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1844.

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P R E F A C E.

WE prefer, in general, in each number of our Magazine to furnish our readers with the *means* of estimating its merit, and such has uniformly been our practical aim. We do not wish, however, to neglect the opportunity, which custom yearly supplies, of reverting to its progress, (and this in several respects is a pleasing task,) and to renew our assurances that its future improvement will always be determined by our own or our readers' discovery of its necessity and means of accomplishment.

By glancing over the pages of the present volume an opinion of its merit will be obtained that we cannot allow ourselves here to express.

Twelve years have now passed since the FLORICULTURAL CABINET first appeared; and although we took the lead by being foremost in commencing, and other publications have followed into the field, by the assistance which has been so liberally supplied, we have been enabled to sustain our Magazine in the elevated position in character and circulation (far beyond that of any other similar work) which public estimation had raised it to. And the Conductor cannot therefore desire a more flattering testimonial that his endeavours are approved; and he most sincerely tenders his thanks to SUBSCRIBERS and CORRESPONDENTS, by whose aid he has been so liberally supported and encouraged. But while we thank our friends for their assistance, we very respectfully beg for its continuance, that we may endeavour to perform our duty so as each month it may be increasingly approved. And as it is by our Friends' kind assistance and ready patronage that we have been enabled to accomplish whatever improvements we have already made in our Magazine, and hope to compass others as they may offer, they are now *individually* and *aggregately* solicited to continue their kind offices. As heretofore, we will not admit

into our pages that which will not be of real use, and innocently interesting, so as to promote floriculture. We never have, newspaper like, imposed upon our readers a mass of useless matter on other subjects, nor will we do so; the utmost equivalent shall be given to our subscribers in *floral* information. That we cannot extend our pages in each Number, even for the same charge, is a source of regret; but the Engravings, &c., cost us more than the other portion of the Work, and preclude its possibility; but we intend in future to adopt all available means for maintaining the interest of the Publication. As, by the common course of nature, some of our friends pass away, we solicit those remaining to favour us by a *recommendation* of our Magazine to others, and we will use every endeavour to give *proof* of our gratitude for such kindness.

Downham,
December 23rd, 1844.

THE
FLORICULTURAL CABINET,

JANUARY 1st, 1844.

PART I.

EMBELLISHMENTS.

ARTICLE I.

CAMELLIA JAPONICA ALEXINA:

TERNSTROMIACEÆ. MONADELPHIA POLYANDRIA.

THIS very beautiful Camellia is in the very select collection of Messrs Low and Co., of the Clapton Nursery, and is now offered for sale (as by Advertisement in the present Number). It is understood to be the only CARNATION STRIPED CAMELLIA that has been introduced into this country having *imbricated* flowers.

The pretty flowering variety, Duchess of Orleans, is the nearest to it in its flower, but the blossoms of Alexina is much larger, and the stripes are of a much more intense colour, being strikingly distinct. The foliage of the Duchess is of a sickly appearance, whilst the present variety is of robust health. Taking C. Alexina, as a whole, it is *by far the finest light Camellia* ever before sent out, and deserves a place in every collection.

The Camellia was first known in Europe from the accounts given by early travellers to China and Japan, who relate that they had seen in these countries rose-trees of the size of large oaks, having dark green shining leaves. Such accounts were considered fabulous till the Asiatic traveller, the Jesuit George Joseph Kamel, who visited Japan as a missionary in 1739, contrived to procure two plants of the single red, which he brought to Europe, and sold to Lord Petre for a considerable sum. His Lordship had them sent to the gardens at Thornden Hall, in Essex, where, being kept in a hothouse temperature,

they were killed. The gardener at Thornden, at that time, was a Mr. James Gordon, who, in 1742, commenced a nursery at Mile End, near London. He, being somewhat aware of the value of so ornamental a plant as the Camellia, managed it so as soon to procure another plant, which he put out in the open border of a conservatory, where it continued to grow for ninety-four years, till the nursery was broken up to build upon in 1837; from it, it is supposed, many thousands of young plants had been raised as stools to bud, inarch, &c., the subsequent double kinds. It is generally understood that the Camellia was introduced into this country in 1792, but the above fact confirms the introduction from 1739 to 1742. Mr. Gordon died in 1780, and he had not only obtained the single red, but the double white and red striped. The single red, too, was figured in the Botanical Magazine in 1787, where it is observed that the plant will very probably be found as hardy as the Laurustinus or Magnolia. The plant was then sold at a very high price, and in consequence prevented its being hazarded as trial.

The species and varieties introduced from China to this country, in addition to the one now figured, are *C. euryoides*, white, *C. Japonica*, red, *C. Kissi*, white, *C. oleifera*, white, *C. reticulata*, red, and *C. Sasanqua*, single white, double white, semi-red, and double red. The varieties raised in British and continental gardens now exceed one thousand; all are pretty, but many of them peculiarly handsome.

The soil best adapted for the Camellia, is one part turfy heath, two parts of rich turfy loam, to which add another equal part consisting of a portion of sharp sand, bone dust, and charcoal in small bits about the size of a field bean, and a similar quantity of well rotted hot-bed dung. These being incorporated well together, chopped not sifted, for four months before using, make a compost for the plants we have never seen equalled. In potting use a free drainage of turf cut into pieces the size of an Orleans plum, over which place an inch of moss, and when putting in the compost in potting, drop in a few pieces of gritty stone, in order to absorb any overplus of water. When potting take care to have the soil moderately dry, and in filling it in round the ball to do it in regular layers, pressing it rather firm so that no space be left. Many cultivators advise repotting just before the plants begin to grow. We think this plan better adapted for nurserymen,

and those whose only object is to make wood. The production of blossoms is another thing; and in the case of luxuriant plants, this can only be done by a temporary check of some kind, the best of which is, in my opinion, limiting the supply of water at the root, and not calling a new series of fibres into play until the blossom-buds are decidedly formed. Repot Camellias when they require it, which is soon after they have made their young growth—as soon as the young leaves are perfectly developed, and the end of the young wood at the point of junction with the wood of the former year begins to turn a little brown and the flower-buds can be just seen. The ball of the plant should be rather moist at shifting; and when it is in a pot-bound state, it should be immersed in tepid water for an hour, about three days previous, allowing a day or two for the superfluous water to drain away before potting; place the ball immediately on the moss. After shifting, the plants must be placed in the greenhouse, &c.

The thermometer is kept during the season of growth from 60° to 65° by day, and 50° to 55° by night. The treatment is now of a close and moist character, giving air in moderation and with caution every morning, from ten o'clock until noon, and then, unless very hot weather, shutting close up. A little fire-heat is given every morning, from seven o'clock until eleven, when it is taken away until four o'clock, and then applied for the evening; the temperature being from 65° to 70° by day, and from 55° to 60° by night, and accompanied with a free circulation of air, avoiding all cold winds. The main business now is the concentration of those principles which form the future blossom-bud, now in an incipient state; strong action of the root with free watering, and an overmoist atmosphere, will readily convert the would-be blossom-bud into a second shoot. The plants are now very sparingly watered; in fact, a good smart syringing every afternoon immediately the air was taken away, say four o'clock, is nearly sufficient. A little fire should be made every afternoon, except on warm sunny days, about two o'clock; but put it entirely out about five o'clock, as it is only requisite to warm the pipes or flues sufficiently to produce a genial vapour for the night; and half an hour after the fire is pulled out, the flues and floor are saturated with water, to be evaporated by the next day's ventilation.

When the bud is formed it requires feeding; and the fire must be

dispensed with entirely, merely observing in the case of sunny afternoons to make free use of sun-heat, by shutting up the house early in the afternoon, say from three to four o'clock, according to the weather. Air must be given freely at all opportunities, and the plants syringed heavily at seven o'clock in the morning, and again at four o'clock in the afternoon, saturating the floors and flues, or pipes, with water in the evening. The plants must be well watered at the root whenever they require it, using liquid manure from old dung, in the proportion of one part liquid manure to four of clean water. The plants now possess abundance of new fibres, and their powerful action, assisted by liquid manure occasionally, produces both a plump bud and a dark leaf, and enables the plant to store up abundance of necessary food for the expanding blossoms.

At the respective periods of growth and flowering, the plants will require plentiful watering; during the latter, if not regularly supplied, the bloom-buds will infallibly fall off, instead of expanding into flower; at other times, a regular moderate supply is essential. The effect of constant watering may be presumed to diminish or destroy the fertility of the small quantity of earth allotted to each plant; therefore, when the annual repotting occurs, carefully take away as much of the former ball of earth as can be done without injuring or cutting the roots.

The plant may be considered strictly a hardy greenhouse one, similar to the Myrtle, only requiring protection in severe weather; and if it is kept just above freezing point, a temperate heat, it will succeed much better than if grown in a high temperature. At the period of making their growth, an additional degree of heat will be found advantageous.

Camellias are readily increased by budding, inarching, or grafting. Cuttings of the single red strike the readiest, taking them off in July or August, that is, when the young shoots are sufficiently ripened at the base. Each must be smoothly cut through at a joint, that is, where it has last pushed from, be divested of one or two leaves, and then firmly planted around the pot, having the lower half of compost, and the upper half of white sand. Being well watered, and the pots plunged in a frame of moist peat, and closely shaded for several weeks, they will form callosities or fibrous roots, and, as soon as they can with safety be removed, they must be potted singly, in small pots,

in the compost already described. After potting, they require to be placed in a close frame with peat, sprinkled over head occasionally with tepid water until they begin to root afresh, when, by degrees, air is to be admitted, so as gradually to inure them to a cooler atmosphere. The following season they must be repotted, in the usual compost, and in all respects treated as the blooming plants are, and by the succeeding season they will be strong enough for inarching, &c.—the best time to do which is early in spring, just before the plants begin to grow, and for budding, as soon as the young wood is sufficiently ripened to be firm.

ARTICLE II.

OBSERVATIONS ON THE CULTURE OF THE RANUNCULUS.

BY MR. GEORGE LIGHTBODY, OF FALKIRK, SCOTLAND.

AGREEABLE to your request, I now send you a few observations on the culture of the most beautiful and regular of all the florists' flowers,—the Ranunculus. I lay no claim to being a standard authority, but merely intend to state my own practice, the result of many years experience; and the success by which it has been attended, is known to too many for me to attempt anything like exaggeration.

Another object I have in view, is, that your periodical offers a greater certainty of its preservation for reference than the columns of a newspaper. Beside, many persons apply to me for instructions: I shall in future refer them to the Number of the CABINET in which this may appear; for writing such long details, and so frequently, has become rather irksome. Should I make any discovery at a future time that may be advantageous, I will with much pleasure communicate the same.

The situation best adapted for Ranunculus beds, is an open level site, free from eddy winds and fully exposed to the sun.

PREPARATION OF THE BEDS.

It is of great importance to have the beds prepared in a proper manner. I strongly recommend this work to be done in August, not later than the beginning of September.

My reasons for this early preparation are twofold. Fine weather may almost be depended on at this period, for the purpose of having the soil thoroughly sweetened, by turning what is intended

for the surface of the beds, frequently to the action of the sun. It also allows ample time for the consolidation of the beds, so as to make them retentive of moisture, to insure a strong bloom.

There must be at the least two feet of good soil in depth; if there is not, the substrata will require to be removed and replaced with rich soil of a retentive nature.

My practice is to remove the surface of my beds annually to the depth of nine inches. The subsoil is then turned up a whole space in depth, and well broken. I usually allow my beds to remain in this state for a day or two to sweeten the subsoil as much as possible, by exposure to sun and air. I then throw into the beds about four inches of old cow-dung not less than one year old, breaking it well. I then sprinkle over it some new slackened lime finely sifted; shake up the dung so that the lime may penetrate through every part of it to destroy all the worms; after this rake the dung level, and fill up with the soil intended for the surface: as the beds subside, fill up with soil reserved for the purpose.

The benefit resulting from the use of lime is, it corrects the acidity in the dung, and the cultivator will not be troubled with many earth worms in his beds, casting out his roots and making their ugly casts on the surface, also making the soil pervious to the drying winds of spring.

For my subsoil I use a rich clayey friable loam, very retentive; but I prefer a rich light soil for the surface.

During the preparation of the beds, destroy everything that appears in the shape of vermin in the soil;—soil for the *Ranunculus* cannot be too free from these pests. If there is wire worm spare no labour to eradicate them, catch them and break them, give them no quarter, for they are the most destructive enemy that the florist has to encounter.

The best edging for the beds is a neat wood, one rising about two inches above the level of the paths; it harbours no vermin, and its utility will be perceptible when we come to the planting time.

Rake the surface of the beds occasionally; and during frost, break the surface with a spade and pile up the frozen clods to allow the frost to penetrate as far as it will, but don't disturb the dung. Rake the soil level when a thaw takes place; this helps to keep the soil sweet, and destroy any vermin that may be in it.

PLANTING TIME.

The time for planting will vary in the different portions of the island. In the southern part, spring is earlier by a fortnight than where I reside. A few degrees of latitude makes a sensible difference in climate, therefore cultivators must be guided by the climate of their respective locality.

After the middle of February, when the surface soil will rake easily, and the weather is dry, I commence to plant. The beds must be full up to the wood edge, and quite level. This is best done by a piece of board extending across the bed; and two persons causing it to rest on the wood edge, and drawing it from end to end, will speedily remove any surplus soil and leave the bed perfectly level. Then mark on the wood edge the rows, say four inches and a half apart for the old varieties and five and a half for the new. If the beds are four feet wide, twelve or fourteen roots of the old sorts may be planted in each row, but ten of the new will be found sufficient, in consequence of their more vigorous habit. The best way to plant is to mark across the surface for each row. Then excavate with a trowel to the depth of one and a half inch. To insure the exact depth, I use a piece of wood with a notch cut at each end, the requisite depth, which is pressed into the drill till the projecting parts rest on the wood edge, (the back of it serves for levelling the beds.) In planting the roots keep the crowns up, press the claws into the earth firmly to prevent worms casting them out, but take care not to break them. Two persons, after a little practice, will plant a large quantity in a little time by this process.

MANAGEMENT FROM PLANTING TIME TILL BLOOMING TIME.

The roots, after having been in the ground for a few days, swell to three times the size they were when planted. Should very wet weather occur and afterwards sudden and severe frost, which is often experienced at this early season, there is danger of some of the roots being destroyed. In this case, it is advisable that some old mats or dry litter of any kind should be laid over the surface of the beds to prevent the frost penetrating to the roots. The beds can be cleared when a favourable change takes place. By the middle of April the plants will all be up. They frequently rise so strong as to displace the soil about them. Look over them and take the displaced soil,

break it, and put it about the neck of the plants. When the foliage of the plants has attained to the height of two or three inches, then is the proper time to stir the surface of the beds, do this carefully to the depth of two inches between the rows, but don't go so deep close to the plants. Break the soil fine and keep it level. Take care that the plants are not disturbed nor their foliage injured. See that the soil is gently pressed around the neck of the plants to keep out the drought. Persons who grow Auriculas will find it good practice to reserve a portion of their old compost, and after the beds have been stirred, strew it equally over the surface to the thickness of about a quarter of an inch. This serves for a top dressing, and gives the beds a neat and finished appearance, and helps to keep out the drying winds of spring.

During April and May, should the weather prove hot and dry, it will be of advantage to the plants to water occasionally; this must be gone about with judgment, for in the event of frost taking place through the night, the foliage would suffer and the plants receive a check. When there is no appearance of frost, water liberally with rain or pond water administered between the rows with the pipe of a watering pan held low, so as not to make holes in the soil. Spring water should never be used till it has been long exposed to sun and air to soften it and raise its temperature.

Look over the plants occasionally previous to the bloom, for at this time they are liable to receive damage from cuckoo spit harbouring in the foliage, and a small destructive caterpillar that lodges in the embryo blooms eating out the whole of the petals and leaving nothing but the empty calyx.

[*To be continued.*]

ARTICLE III.

REMARKS ON THE ARNOTT STOVE FOR HEATING A GREENHOUSE.

BY S. V. V. N.

IN your Number for the last month, a correspondent, "A. B. C." inquires if the Arnott stove answers for greenhouses; and Mr. William Holmes, under Article III., kindly offers the best information his present experience affords. With a view of rendering my humble assistance on this interesting subject, brought under notice

through the valuable improvements for the regulation of fire-heat, so generously and disinterestedly contributed for the public benefit by the able and scientific inventor of the stove, Dr. Arnott, I beg to submit my experience thereon for the information of your inquiring correspondent and general readers.

It is to be borne in mind, that although Dr. Arnott suggests various plans for stoves, yet it is not simply the form thereof, but the discovery of the grand principle of regulating heat by admitting only sufficient air to feed the required combustion, for which the public are so much indebted to him. Various forms of stoves are protected by patent, but are all based upon this leading feature, which no patent can now shackle, and may be adopted by any one. I mention this to show that we are not compelled to purchase a patent stove if we wish to have the advantage of the principle applied to a greenhouse, where those of iron only, are objectionable, not only from their speedy destruction by corrosion in a damp atmosphere, but also for the simple reason, that however beautiful and perfect their construction may be, yet improper fuel and inexperienced management may cause the fire to be extinguished in the middle of a severely frosty night, (as was the case with "A. B. C.,") when, by the ready departure of heat from a thin case of metal, the consequence may be, the destruction of many valuable plants.

The plan I adopted last winter was, to build the stove itself of brick within the house, midway against the back wall, and the effect is, that should the fuel be all consumed before attention can be given in the morning, (which from the slow combustion, is very rarely the case), the heat retained in the brickwork is sufficient to keep out frost for several hours. I found, on one occasion, on making up the fire the last thing at night, (noting the time,) and without doing anything more whatever to the stove, that it retained heat through the brickwork for fifteen hours!

It is constructed thus:—the bottom part of brick, and all the top or upper part of fire-lumps, which are of the temper of fire-brick, and used, I believe, generally for the bottoms of ovens; the advantage of the latter is, that they are easily secured with small iron cramps, a necessary plan, otherwise the expansion from the heat will loosen the work and produce crevices, which would be injurious to the perfect action of the stove. Lime mortar or Roman cement is useless, as it

readily calcines and will soon leave the joints open. The mortar I used was simply sand mixed with warm water; not common sand, but such as is used by iron-founders in this neighbourhood for casting, and called by them fire-sand; the effect produced from this is, that instead of calcining it is baked (or vitrified in some measure) by heat, and becomes ultimately as hard as the brick. I should suppose that the same material of which bricks are usually made will answer every purpose. The interior, where the fire (or fuel) is placed, is of the usual size of the Arnott stoves, and formed of the fire brick, that may be had of most persons who sell such stoves, seven and a half inches square horizontally and twelve inches deep; at the bottom of this there is a small ledge on which rests a portable cast-iron grating, to support the fuel; portable, in order that it may be readily replaced if injured by the heat or choked with clinkers, as is frequently the case on using some sorts of coal; underneath this, of course, is the ash-pit. The doors, for placing the fuel in, used for the ash-pit, situate as in the patent stoves, are of cast-iron, made air-tight, with substantial frames having projecting arms that they may be firmly walled into the brickwork. Above the space I have described for the fuel, (I believe in the Arnott stove called the fire-pan,) the interior is wider, say fourteen inches square, and continued up about ten and a half inches, when an iron sand-groove is securely fitted and a wrought iron cover rests thereon, air-tight, in the usual way, having a knob for a handle to lift it by; and close under this sand-groove is the aperture for the flue, which is of copper pipe four and a half inches diameter, carried up to within about one and a half feet of the glass and then passing through the wall. Although I have used copper, I am of opinion that a brick-flue either extending horizontally and then erect, or carried perpendicularly from the side of the stove, would be preferable; if sufficient height be given to the chimney to insure draught, (an important point with slow combustion). Over this air-tight cover, there is still a space about four inches higher, and then a cast-iron cover at top, fitting flatly on the brickwork, which need not be air-tight. This has the effect of modulating the heat that with one cover would be too intense for a greenhouse.

So far I have adopted a plan suggested and acted upon successfully by two enterprising floriculturalists residing in a neighbouring town, but with them, the air for feeding combustion being admitted

through a valve in the ash-pit door, an objection arose, that the continued extraction of atmospheric air, for several hours, from a closed house, would probably injure the health of the plants; to obviate which, I admit the air from the potting-room, through the wall to which the stove is attached, by a copper pipe two inches in diameter conveyed horizontally to the ash-pit; and at the exterior end thereof is a regulating valve, with balance weight to adjust at pleasure, made on the principle of the plug valve recommended by Dr. Arnott, and similar to that applied to one of the fancy stoves. I find this valve answer my purpose well, as I regulate it the last thing at night according to the appearance of the weather and the state of the thermometer; but the very best valve for an Arnott stove is the self-adjusting one, brought into action by the expansion and contraction of a bar of metal placed within the stove, as it is unerring and not so liable to injury and destruction as the thermometer one and others. On the top of the stove should be placed a broad tin pan containing water, the evaporation of which is necessary for the health of the plants under the operation of the stove, as the air would otherwise be rarified too much.* The fuel I use is Welch stone coal, (I believe a description of anthracite,) such as is burnt in malt-kiln fires, and this I find from long experience to be the best for closed stoves. It should be broken in pieces from the size of an egg to that of the fist, or even larger, but by no means use small coal or coke for a night-fire, as the former chokes the draught immediately, and the latter in a short time, by being sooner reduced to ashes than almost any hard fuel; and the effect would be, that the air for feeding combustion (all of which must come from the ash-pit through the grating) would be excluded, and, of course, the fire go out. The stone coal makes very little ash or cinder, and produces very little gas to cause smoke that may choke the flue. One of the most particular things to attend to in the management of the Arnott stove, is, raking the ashes from the grating the last thing at night; I manage it with a single tooth iron rake, which will pass freely through the bar of the grating, the bars of course ranging in a direction to and from the door.

* The propriety of keeping "a large open tank of water" in a greenhouse, as described by "A. B. C.," appears very questionable, particularly when heat is not applied, as it may cause damp and mildew.

I have used this stove best part of last winter, and at this season have had occasion to light it but four times ; therefore improvements may, possibly, yet suggest themselves ; but in the neighbouring town of Weymouth, it has been tried two winters and found successful. I feel sanguine that this improved application of fire-heat will be found considerably more economical, and of much easier management, than the old plan, particularly when this adoption of the new principle attracts the attention of scientific persons ; and that the result will be a considerable augmentation of the number of greenhouses, and an increased encouragement of floriculture.

If the principle of the Arnott stove were applied to the present fire-places for warming greenhouses, I think it would prove to be more economical than the old plan ; but if not so, there would certainly be a great advantage in very severe weather, from the length of time the fire will continue without being looked to, in consequence of the regulation of combustion, particularly with a self-acting valve.

ARTICLE IV.

REMARKS UPON GROWING SEEDLING CALCEOLARIAS.

BY AN AMATEUR OF EDINBURGH.

IN offering the following remarks upon the culture of seedling Calceolarias to prove them, I shall not premise the few hints with any eulogy upon the beauty of the plant, as it is so well known and so universally admired, not only for its long-continued season of flowering, but also for the now endless variety of colours that it presents through all the shades of white, yellow, and crimson, to the strange admixture of hues in the beautifully unique *Chandlerii*.

For some years past I have raised plants from hybridized seed gathered off the best varieties among a good collection of them in my greenhouse. As the plants ripen their seeds most freely under the protection of glass, I get an abundance of fine, well-ripened pods, containing quantities of good brown seed ; these seeds I sow in pans about the end of July or beginning of August, and then place the pans in a gentle heat, always giving plenty of air whenever the weather permits. In a short time the seeds begin to germinate, and innumerable small plants make their appearance. At this stage of

their youth great caution is requisite not to water-run them ; and, therefore, they should be watered with a very fine rose, or, what is, perhaps, better, with a wet brush, that by passing your fingers quickly over the bristles causes the water to fly off in the form of small rain ; this I have found a very good and safe mode of watering when the plants are very young.

In the course of two or three months the plants will be found in fine condition for removing to pots. At this stage of their treatment I found myself rather embarrassed in disposing of the great quantities of plants which I had raised, as by the time each plant had been potted off into a pot large enough to flower it, my seedlings would have occupied no end of room, and my accommodation for plants not being very extensive, I thus felt bound to restrict myself to a few dozens of seedlings.

The rest of my young seedlings I was unwilling to cast away, being anxious to prove as many as I could, if not all, under the protection of glass. I last year thought of a plan which proved quite satisfactory.

Having a great quantity of small pots (sixties) at hand, I procured good old pasture soil, adding a little white sand, and potted off the greater part of my seedlings, all those that had two or three pairs of leaves, and then replaced the pan in its old position as a second crop of them appear, and I have found a second crop produced most good ones.

I then procured several boxes, about a foot deep, which I filled with good old pasture soil, not sifted, but well broken down ; in these boxes I sunk the little pots up to the rim, and on a level with the edges of the boxes, and there the plants remained till they flowered.

As the plants grew, they forced their roots down through the pots into the soil below, from which they derived the requisite nourishment, and they continued to flower during the summer in the utmost luxuriance, presenting one unbroken mass of flowers of every variety of hue. If any good ones presented themselves, I generally removed them as soon as I perceived them, by raising the small pot out of the box, and then repotted the plant into a large pot ; and though the roots had been disturbed that had penetrated through the small pot, yet if the ball of roots be not broken in turning out the plant, it will not flag at all if well watered immediately after.

By this method the plants grew much more regular than if merely pricked out into boxes, where they generally overrun each other. Thus thousands of seedlings may be proved in a comparatively small space.

I have this season several boxes full of fine healthy plants that I would not have had room for had they been grown in large pots. As I raise my seed in a hot pit, I also place there my boxes until the plants are well established, when I remove them to the greenhouse to be kept moist, but not wet, to prevent the plants damping off, which they are very liable to do if not well aired in mild weather.

These remarks, the result of experience, I send to you, should you think them worthy of notice in the pages of your most useful CABINET.

December 12, 1843.

[We shall be glad to receive further communications.—CONDUCTOR.]

ARTICLE V.

ON THE DEEP INTERMENT OF CHOICE HYACINTHS AS THE BEST MEANS OF INSURING A VIGOROUS BLOOM.

BY W. C., M.D.

THE above excellent method of treating fine Dutch Hyacinths was suggested to me when in Paris many years ago. I can bear ample testimony to the striking effect produced by a method which at that time was novel and little known. I am aware that the practice of plunging bulbs at the usual planting season is now becoming pretty general; but my object in the present article is to insist upon the relative advantage of deep plunging as compared with the usual method. It may be needless to remark that the object originally in view, and more or less attained by such process, was to secure the early rooting of the bulb; thus placing it under the most favourable circumstances for forming strong and powerful bloom.

It has been argued, however, that the plunging to the depth now recommended is altogether unnecessary, the depth of one foot being equally conducive to the effect proposed, and securing equally the same advantages; but a very little consideration will enable us to establish the principle contended for.

The further and the more perfectly a bulb, whose dormant period shall have approached completion, be removed from the immediate

influence of air, light, and moisture (three at least of the great stimulants of vegetation), the more entirely will such bulb be thrown upon its own resources, and the force of its innate vitality be directed to the vigorous and luxuriant development of radicle—a condition amply explanatory of the advantages insisted upon, and which become so remarkably conspicuous in the subsequent period of bloom and beauty.

Again, it will be found that the further the pot has been removed from the surface, the bulb will not only have rooted more extensively, but the greater will also be the diameter, and the less the advance, of the rising bouton.

Fully convinced, therefore, of the truth and soundness of these principles, and having been always satisfied with the result, when they have been properly carried out, I can confidently recommend the following procedure to the adoption of amateurs for the successful flowering of the Hyacinth.

About the last week in October proper sized pots are to be selected and effectually drained; these are then to be filled with light, sandy, maiden loam, the argillaceous kinds being studiously avoided. Strong pressure should then be made in the centre by a convex ball of wood, somewhat larger than the bulbs; and into this depression should be placed a corresponding portion of an equal mixture of dry rotten dung, sifted, and fine white sand; herein are the bulbs to be firmly implanted. The strict observance of this double pressure is, from well-known reasons, a valuable element in the success of the operation. The bulbs should not be wholly immersed; a third part may be well left uncovered with compost. The pots being thus prepared, a pit, from four to six feet in depth, is to be dug in any convenient and dry ground; and the pots, having been duly arranged therein, are first to be covered with a thin layer of straw, and over this may be placed a lattice-work of pea-sticks, as precautionary indications upon their removal. The pit is then filled in. On the 20th or 25th of January the pots are to be carefully disinterred, when, should the bulbs have been originally good and strong, they will be found to have completely filled their pots with roots, and presenting a finely-developed bouton, indicative of the favourable auspices under which they will now throw up their scape.

There can be little doubt that several other bulbous genera might be very advantageously treated on the same principle. I have found

it, indeed, peculiarly successful with recently-imported bulbs of *Sprekelia formosissima*.

In conclusion, I would suggest the interest that might arise from the institution of a series of experimental researches in detail upon the relative progress and ultimate development of two Hyacinths, the one blown in the water-glass, and the other by the system of deep plunging. It would, at any rate, be difficult to conceive conditions more opposite to each other, either in a physiological or a floricultural point of view.

Tangier House, Taunton, November 25, 1843.

ARTICLE VI.

ON THE CULTURE OF PELARGONIUMS.

BY C. C.

I HERE forward a few remarks on the culture of Pelargoniums, which, if followed out, cannot fail of the most complete success. The plan is this. The latter part of May is the best time to strike the cuttings. One great reason that there are so many disappointments in obtaining a fine bloom is owing to the cuttings being struck late in the season, so that there is no time for hardening the plants before winter arrives. The consequence is, the plants are weak and sickly till late in the following season, and the blooms are few and small. Suppose the cuttings to have been struck at the time I recommend, about the latter part of June they will require potting off: after this they may be kept in a cool frame for about a fortnight, and then gradually exposed to the full air; they should then be placed on a dry bottom, so that the roots may be prevented from running down into the ground. They should be placed, too, so that they may be screened from the violent heat of the sun for about three or four hours in the middle of the day. They may remain in this situation till the beginning of September, when they must be repotted. This must be carefully attended to. Then place them in a cool frame; they must have the full air all day, and place triggers under the sashes at night. The sashes overhead will prevent slight frosts from injuring them. At this potting most of them will have made very strong shoots; they, therefore, must be shortened to about three eyes; this will induce them to throw out several very strong shoots, about two inches long,

by the latter part of October. They may remain in this situation, with proper protection, till the beginning of March, giving but very little water. When they begin to grow, examine them to see if any of them want potting; the strong growing kinds should not be in less than six or seven inch diameter pots. If it be desired to bloom them early, give them a slight lining; but if a little patience be exercised, and not give them much artificial heat, they will amply repay by a more vigorous and splendid bloom.

If these few remarks on one of our most admired class of plants are carefully attended to in practice, the most desired success will follow. Old plants will not do, neither will younger.

PART II.

LIST OF NEW AND RARE PLANTS.

BASSILEA PAUCIFOLIA. Few leaved. (Bot. Reg. 63.) Leguminosæ. *Dialophia Decandria*. (Synonym *B. virgata*.) This very neat species has been raised from seeds sent from the Swan River Colony to R. Mangles, Esq., of Sunning Hill, in Berks. We have seen several specimens of it in bloom in the collection of New Holland plants at the Clapton Nursery. The plant is readily kept as a dwarf compact bush by stopping the leading shoots, and when so treated, blooms much more freely. The pretty pea-formed blossoms of a bright yellow and crimson red colour, each being near half an inch across, are both interesting and showy. It well deserves a situation in the greenhouse.

CIRRHOPETALUM AURATUM. Gold-edged. (Bot. Reg. 61.) Orchidaceæ. *Gynandria Monandria*. A native of Manilla, and has bloomed with Messrs. Loddiges. It is a very singular species, rooting profusely round the branches of a tree or piece of wood, and hangs down gracefully therefrom, producing umbels of flowers which are singularly balanced in the air, the strap shaped lateral sepals looking like so many party-coloured ribbons of crimson red, yellow, and purple, mottled, spotted, and striped, collected into a balloon.

CYCNOCHES VENTRICOSUM; VAR. *EGERTONIANUM*. Sir Francis Egerton's Variety. (Bot. Mag. 4054.) The flowers are produced in long racemes, each blossom is about an inch and a half across, of a pretty purple colour inside, the outside green with a slight purple tinge spotted with deep purple.

DIPLOLÆNA DAMPIERII. Dampier's *Diplolæna*. (Bot. Mag. 4059.) Rutaceæ. *Polyandria Monogynia*. A native of Western Australia. It is a moderate sized shrub, blooming freely in the greenhouse in April and May, producing a very pretty appearance. The flowers are crimson and yellow, produced in drooping heads near two inches across. The florets in each head are numerous.

BARRINGTONIA SPECIOSA. The showy. (Pax. Mag. Bot.) Myrtaceæ. *Monodelphia Polyandria*. This noble plant grows to the size of a small tree, but with management can be bloomed in the stove as a dwarf bush of the height of three or four feet. It grows plentifully in the various parts of India, China, &c. The leaves are a foot in length, of a bright shining green. The flowers are produced numerously, in an erect thyrse, white, with a vast number of deep blood-coloured stamens. A plant has recently bloomed under the management of Mr. Dodds, gardener to Colonel Baker, of Salisbury, the flower spike being near two feet long. Mr. Dodds withheld water from the plant from November to about the middle of March, it was then duly watered and started

into growth. About the middle of May it had made shoots a foot long, when he turned it out of the pot, shook nearly all the soil away and cut back the roots; then repotted it into a twelve-inch pot, in a mixture of charcoal, loam, sand, and peat, and in a month afterwards it threw up a fine spike of flowers. The flower is highly fragrant, something like the night blooming cereus, but even more powerful.

EPIPHYLLUM RUSSELLIANUM.—Duke of Bedford's. (Pax. Mag. Bot.) Cactaceæ. Icosandria Monogynia. The habit of the present plant is similar to *Etruncatum*. The flowers are of a pretty crimson-violet colour, very distinct and handsome. It usually blooms from October to May, thus rendering it a very delightful winter flowering plant. It was discovered by Mr. Gardner on the Organ mountains of Brazil. It is in the collection of Messrs. Rollisson, at Tooting.

HIBERTIA PERFOLIATA.—Thorough-wax Hibbertia. (Bot. Reg. 64.) Dilleniaceæ. Polyandria di-Pentagynia. A native of the Swan River Colony, and is a most interesting and beautiful greenhouse shrub, growing freely and blooming profusely. It thrives in a compost of equal portions of peat, loam, and sand. The flowers are of a beautiful bright yellow, with a circle of clear white running round near to the margin of yellow, producing a pleasing contrast. Each blossom is about an inch and a half across. The plant deserves a place in every greenhouse.

ONCIDIUM BICOLOR.—Two-coloured. (Bot. Reg. 66.) Orchidaceæ. Gynandria Monandria. Sent from the Spanish Main to Messrs. Loddiges, with whom it has bloomed. The flowers are produced in a branching panicle, each blossom being about an inch across, of a bright yellow marked and spotted with red. The lip, which is of a clear yellow above, is white at the underside.

RHODODENDRON APRILIS.—Garden Variety. (Bot. Reg. 62.) The Hon. and Rev. W. Herbert, Dean of Manchester, has raised this very neat flowering variety from seed of *R. ponticum*, fertilized by the Davurian *Rhododendron*. It blooms in April, for which reason the specific name is given. The flower is nearly white, with a beautiful pink, increasing in tint as it extends to the edges of the petals. The two upper petals have numerous spots of yellow upon them. It is a hardy variety, and well merits a place in every collection of the lovely tribe.

SAXIFRAGA CILIATA.—Fringed Saxifrage. (Bot. Reg. 65.) Saxifragaceæ. Decandria Digynia. A hardy perennial, requiring the same treatment as the old *S. crassifolia*. The flowers are produced in a panicle, white with strong veins of a slight pink colour.

STATICE RYTILOPHYLLA.—Rasp-leaved. (Bot. Mag. 4055.) Synonym, *S. Dicksoni*. Plumbaginæ. Pentandria Pentagynia. A shrubby species, growing about two feet high. The flowers are produced in a large panicle, of a beautiful rose colour.

STEPHANOTUS FLORIBUNDUS.—Copious flowering. (Bot. Mag. 4058.) Asclepidaceæ. Pentandria Digynia. This very attractive and noble climbing shrubby plant is a native of Madagascar, and was introduced into this country by Mrs. Lawrence of Ealing Park, where in the stove, trained to a wire trellis about eight feet high, we have seen it on several occasions in profuse bloom. The flowers are produced in umbels of eight or ten in each. The tube of the flower is about an inch long, and the expanding limb an inch and a half across, of a beautiful waxy white, which in contrast with the fine dark green foliage gives a fine effect. We doubt not but it blooms freely if grown in a warm greenhouse or conservatory. As it can now be purchased for a few shillings each, it deserves to be extensively grown.

VERONICA SPECIOSA.—Slowly-flowered. (Bot. Mag. 4057.) Scrophularinæ. Diandria Monogynia. A native of New Zealand, discovered by Mr. Cunningham growing on hills in the locality of the Hokianga River; it is expected to be hardy, but at all events the winter protection of a cool frame will be sufficient to preserve it, and of course the greenhouse shelter will be decisive, and as it is so

beautiful a flowering plant it well deserves to be in every one. In its native country the shrub attains the height of from three to six feet, very branching, each branch bearing several spikes of flowers, each spike being about three inches long, and one and a half in diameter. Before opening the flowers are of a red-purple, afterwards of a rich blue-purple. It is a clean, healthy looking plant, somewhat the appearance of *Lisianthus Russellianus*, but is shrubby and an evergreen. Mr. Cunningham observes respecting it, "Of all the New Zealand plants we know of none more to be desired wherewith to enrich our collections than this remarkable and beautiful *Speedwell*." It has bloomed in the collection of Mr. Knight, nurseryman, King's-road, Chelsea.

PLANTS NOTICED IN BOTANICAL REGISTER, NOT FIGURED.

MASDEVALLIA CUPREA.—Orchidaceæ. Said to be a native of Cayenne, and sent to this country from Hamburgh. Upper sepal copper-coloured, the lower dark purple, having a copper-coloured point.

PLANTS OBSERVED IN NURSERIES, &c.

CLERODENDRON (new species).—In the collection of Mr. Glendinning at Turnham-green. It is of the habit and appearance of *C. squamatum*, having deep scarlet flowers.

POTENTILLAS.—Mr. Young of the Epsom Nursery, has raised two beautiful seedlings; one is in the way of *P. Hopwoodiana*, having a larger flower, with less of the coloured tinge; the other is a large white-flowered one.

SIPANEA CARNEA.—A hothouse shrubby plant, which has recently bloomed in the collection of Messrs. Rollissons of Tooting. The flowers are something in the way of an *Asclepias*, nearly white, and produce a pleasing appearance.

SAGITTARIA SAGITTEFOLIA PLENA.—This double flowering arrow head is a very interesting addition to the aquatic plants. The flowers are of a pinkish-cream colour. It is in the collection of Messrs. Rollissons, and is quite hardy.

CATTELEYA MARGINATA.—This very beautiful addition to the fine *Cattleyas* previously bloomed in the collections of this country has been made by Messrs. Loddiges. The flowers are of a pretty rosy-crimson, with a very clear white margin, producing a striking effect.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON SHOW DAHLIAS.—A constant Subscriber will be obliged by some friend giving him the names and colours of twenty-four of the best Show Dahlias.

C. C.

ON FRITHILARIA PERSICA.—The Editor of the CABINET will much oblige a constant reader if he will inform her in the January Number how to treat the large bulbs of the *Frithlaria Persica*, as she has just received some bulbs and would like to know whether they do better as house plants or in the open border. A hint on suitable compost for them at the same time will much oblige

Felton, December 14, 1843.

ELIZABETH.

[It is perfectly hardy, and requires to be treated as the common *Frithlary* in all respects. In a sandy loam mixed with a portion of peat the plant grows vigorously.—CONDUCTOR.]

ON THE CULTURE OF CAPE BULBS.—It will be conferring a great favour on one of your earliest subscribers if you, or any of your numerous correspondents will have the kindness to give some information, in one of the earliest Numbers of the CABINET, on the best method of treating the superior kinds of Cape Bulbs so as to make them flower freely. I received a number last April from the Cape, such as *Brunsvigia multiflora*, *Josephina falcata*, *ciliaris*, *pumila*, &c. *Hæmanthus tigrinus*, *toxicarius*, and *puniceus*, *Cyrtanthus odoratus* and *obliquus*, *Vallota purpurea major*, *Albuca filifolia*, and several others. Last October I planted them, inserting about half the bulb in the soil, in sandy peat. *B. Josephina* has shot up a cluster of nine leaves nearly six inches high already; the others, with the exception of the *Tigrinus*, *Vallota purpurea major*, *Veltheimia viridifolia*, and one or two others, have not yet moved, but the bulbs are quite plump and fresh. I have hitherto watered them but sparingly, say about twice a week, a little at a time over the top of the pots, would a little more moisture be advisable? I received at the same time with the bulbs, a number of different sorts of seeds from the Cape, which I immediately sowed in pots of light soil, they nearly all grew and I have at present a great many very fine plants. I have not the convenience of either hothouse or greenhouse, only a cool frame and the sitting-room windows, to rear any of my flowers, I have enclosed a list of the seeds, and perhaps you will be kind enough to insert a paper occasionally in the CABINET on the most approved methods of cultivating the different sorts.

December 16, 1843.

[Do not give more water than is named till the end of February. If there be the convenience of a hot-bed frame at work, place the pots therein, and keep the soil moist, not saturated; the increased temperature will, in all probability soon induce the bulbs to push, when an increased admission of air must gradually be given. As soon as they exhibit flower stems they may be removed, if required, to the sitting-room or cool frame for blooming. We hope some one of our readers, who successfully cultivates Cape Bulbs to some extent, will favour our Correspondent with the detail of management at an early opportunity. We will endeavour to comply with the wishes expressed as to the articles on the culture of the various plants named in the list received.—CONDUCTOR.]

ON ARUMS.—A few hints on the management of Arums in the January Number will much oblige

Felton, December 14, 1843.

ELIZABETH.

[There are stove, greenhouse, and hardy kinds. Those grown in pots require a rich loamy soil, with about one-third of peat added, and to have a free drainage. The hardy kinds grow vigorously in the same sort of compost, taking care to have a dry substratum. The wild Arum of this country flourishes best on dry banks, hedge-rows, &c.—CONDUCTOR.]

ON PASSIFLORAS, &c.—You will confer a favour on a constant subscriber to your valuable magazine by answering the following in the January Number. I have a vinery, which I commence forcing about the middle of February, and am anxious to know whether I can successfully grow the "*Passiflora quadrangularis*," (*Granadilla*.) Plants are kept in it during the winter, so that there is a greenhouse temperature; will it survive the winter in this place? there is a pit inside, in which figs are planted; could it not also be planted at one corner of the pit, and trained to some trellis fixed for the purpose? By answering the above, stating the price per plant, and if any other *Passiflora* will fruit in the same situation, will much oblige

Doncaster, December 1, 1843.

W. B.

[Like other plants, it requires a season of rest, and the situation named will afford it in winter. The branches might be lowered at that season, and thus be safely preserved from any casual injury which otherwise, though not likely, might occur. Plant at the warmest part of the pit. With such precaution it will, no doubt, succeed well. We have known several instances where, under similar

circumstances, it has. *Passiflora edulis* and *P. laurifolia* fruit abundantly under the same treatment as the *Granadilla*. They may be procured at 2s., or 2s. 6d. each at most.—CONDUCTOR.]

ON BUDDING ROSES.—Being a novice in the art of budding roses, I shall feel much obliged if either yourself, or any one of your numerous correspondents, will kindly inform me what is the best way of pruning the stocks. I have now procured two hundred, having last year's shoots left five or six inches long. Should these be left, so that when they put out in summer I shall bud on two years' old wood, or is it better to prune the stock to a single straight stem, and then bud on the wood of one summer's growth. X. X.

[An article on the subject is inserted in the Number for April, 1842, Vol. x., to which we refer our correspondent for the entire process, extracting only the following:—"Transplant strong, clean, straight stocks, as just mentioned; cut them over at a height to suit your taste, say from three to six feet; and cover the wounds with a cement, directions for making which will ensue. In the spring, when they begin to shoot out, rub off all buds but three or four at the top, so situated as to promise an uniform head. Carefully pinch off fresh buds, which arise afterwards, and remove suckers as soon as they appear. In the progress of summer the stocks will require to be staked, and demand continued attention to the disbudding of them (of other shoots which push) and the regulation of those retained for budding upon." "Early in July displace the thorns where it is designed to make incisions for the buds."

"Summer budding should not be commenced before August, although tolerable success may attend the execution of it in July. But worked thus early (July) a portion of the buds will commence growing the same season, at a period when it is too late to ripen their wood sufficiently before the commencement of frost, and thus be likely to sustain injury, or be wholly destroyed."

Our correspondent will see that if the stocks be high enough for the purposes desired when planted, that the head of the stock should be cut off below the shoots already existing, so that new ones (which are necessary for budding upon) may be produced the following season. If, however, any stock would be too low to serve designed purposes, if the present head was cut off, then prune back the existing shoots to one bud each, which, on pushing, will furnish new shoots for budding upon next August.—CONDUCTOR.]

ON WHITE FLOWERS, &c.—A constant subscriber to the CABINET begs to be informed in the next Number what are the names of half a dozen of the best hardy showy *white* perennials, as the inquirer has too few *white* flowers in her ornamental flower-garden. She cares more about the pureness of the white and size of flower than newness of sorts.

Is American Groundsel always an annual?

What is meant by plants being herbaceous; is it that they die to the ground like *Salvia patens*? An answer by the Conductor will oblige.

Linum monogynum.

Lilium japonicum.

Phlox omniflora.

—— *tardiflora*.

—— *suaveolens*.

Achillea ptarmica, double.

Campanula glomerata, single and double white.

Campanula latifolia, single and double white.

Campanula persicifolia alba. *Pyrethrum*, double Feverfew.

[The above are all pure white, and can be readily obtained at a very low price.

The double-flowered groundsel (*Senecio elegans*) is easily kept from year to year, by taking off slips in August, and striking them in pots, preserving them in a cool frame or greenhouse through winter.

HERBACEOUS, when the stems die down annually.—CONDUCTOR.]

REMARKS.

LONDON HORTICULTURAL SOCIETY, REGENT-STREET.

On December 5, a paper was read respecting the cultivation of *Oxalis Deppei*. A specimen of Whitney's (of Shrewsbury) protecting material was also shown to the meeting, with two specimens of a similar kind that might be used for the same purpose from Halifax; the latter, however, were not so transparent as the former, which admits nearly as much light as ground glass, and promises to be very useful in many instances where much light is not required. One great advantage is its cheapness; a sash that would cost 12s. or 13s. to be glazed in the usual way, may be covered with this material for the trifling expense of 9d. or 10d. It is perfectly impervious to water, and will be useful in gardens for many purposes. From the circumstance of its being water-proof, it will also make a good protection for fruit-tree blossoms in spring in damp wet weather, or from cold winds that generally prevail about that season. The material is common calico, painted over with a fluid, the composition of which is not known, but is sold in bottles and may be easily applied by means of a painter's brush. From F. Cox, Esq., of Stockwell, were *Lycaste Skinneri*, a pretty species from Guatemala, with broad light-coloured petals and dark purple labellum: this has, besides being very showy and handsome, the good property of continuing long in bloom; also *Cattleya guttata*, and the old *Cymbidium sinense*, with dark-brown fragrant blossoms; this has been known to keep blooming in a room for the space of six or eight weeks, and during the whole time the house was quite perfumed with its fragrance. In the same collection were likewise *Oncidium bicallosum*, having a fine spike of dark-spotted yellow flowers; this is not very common, and is a good species of that handsome genus. Mr. J. Robertson, gardener to Mrs. Lawrence, sent *Stenorhynchus speciosus*, having broad dark-green foliage, and ten spikes of flesh-coloured flowers; also *Odontoglossum grande*, *Dendrobium denudans*, with small white blossoms, and a plant on a block of the rare *Epidendrum Skinneri*, with fine purple blossoms; this is very difficult to cultivate; according to Mr. Bateman it has been found to succeed well in a vinery where there was a cool low temperature. From the same collection were likewise *Cypripedium venustum*, *Lycaste Skinneri*, with well-coloured flowers, *Rodriguezia secunda*, and *Epidendrum viscosum*, with greenish yellow petals and white-fringed labellum; also *Lælia albida*, with small sweet-scented white blossoms, *Maxillaria cucullata*, and another species with small dull-brown flowers. There were likewise *Erica Sebania lutea*, and a small specimen of *E. Lamberti rosea*, covered with pretty flesh-coloured blossoms; a Banksian medal was awarded for the first four plants. Mr. Green, gardener to Sir E. Antrobus, Bart., exhibited a plant of *Amaryllis aulica* with large scarlet flowers; and *A. calyptrata*, with light-green blossoms. From J. Allnutt, Esq., were *Camellia Donkelaarrii*, two plants of *Erica caffra*, and two particularly well-grown specimens of *E. hyemalis*, having long shoots, densely covered with white and red flowers; this species is valuable, from its producing a profusion of bloom at this dull season of the year; a certificate was awarded for the two specimens of *E. hyemalis*. Mr. W. Brazier, gardener to W. H. Story, Esq., sent a hybrid specimen of *Epacris variegata*. From Mr. Wright, of Hackney, was a collection of cut flowers of *Chrysanthemums*, among which were some excellent blooms; for these a certificate was awarded. From W. Rashleigh, Esq., was fruit of *Benthamia fragifera*. This plant was introduced some years ago from the North of India. It is a very handsome evergreen shrub, flowers in profusion during summer, and produces an abundance of large reddish fruit in autumn. It is not hardy, except in the warmest parts of England. The fruit when ripe bears some resemblance to that of an *Arbutus*. From the garden of the Society was a collection of *Chrysanthemums*; six of these were watered on the 28th of July with superphosphate of lime, in the proportion of a quarter of a pound to a gallon of water for each plant. In the course of three weeks after application the leaves had acquired a very dark green; so apparent was the effect produced on the plants that a stranger could have selected those that had been watered with this from a collection of 150, among which they were growing, without any other mark or distinction. This substance seems to have a beneficial effect on most plants, and, unlike some other artificial manures, it

may be applied in different proportions without the least risk of injuring the plants. Had it been given to the Chrysanthemums at an earlier period, the result might have been probably still more striking.

SCHIZANTHUS RETUSUS AND *S. HOOKERII*.—I had seeds of the *Schizanthus retusus* and *Hookerii* given me by a friend in the spring of 1839, from these I raised plants, potted them in rich loam, part of which I repotted in July into much larger pots and kept in the greenhouse; others I planted in rich soil in the open border in a warm part of my flower-garden. The plants were very carefully attended to in watering, &c., but not a single flower stem pushed. I kept those grown in pots in the greenhouse during winter; those in the bed were taken up in November, planted in a box of soil which I kept too in the greenhouse. In March I repotted half of those in pots in a rich soil, but not one plant bloomed; I turned out those which survived in the box into the border, as well as the remnant in pots which I did not repot in March, not one bloomed in the border, by accident a plant which had not been repotted was placed in a warm situation upon a stratum of four inches of coal ashes and gravel, the roots had descended into the substratum, and the plant pushed vigorous flower stems and there bloomed very freely. It struck me that I had erred by using so rich a compost and allowing too much root room. The following season I planted some in the open border, which had a prepared substratum of brickbats and coal ashes mixed with gravel four inches deep, upon this I had eight inches of poor soil and then supplied water as circumstances pointed out to be necessary, the plants bloomed most beautifully. I grew some in pots, had a free drainage and a poor soil, giving due attention to watering, &c., and nothing could be more satisfactory than their bloom in the greenhouse from July to October.

Isle of Wight, November 3, 1843.

T. PARNELL.

TO PROTECT TENDER PLANTS IN WINTER.—Noticing in the last Number of the CABINET some remarks on protecting tender plants through winter with furze branches, &c., I am desirous that my successful mode of treatment with the tender kinds of tea-scented Roses may be inserted. I have several beds of them on my lawn. I stuck in the ground around each plant some furze branches, and also a close row round the edge of the bed. This being completed, I had a quantity of dry leaves scattered between the furze twigs, filling up as high as the tops of the Roses which, being dwarf, was about a foot. To prevent the leaves being blown away, I laid a number of furze branches over them. By this mode of protection I have for several winters preserved the plants from being injured in the least degree, and by the twigs keeping the plants open from the leaves, air is admitted which, while it is tempered so as not to injure them, it prevents damage arising from being entirely overhead, and air thus much excluded. Early in the spring I take away gradually the covering, leaves, &c. My plants have grown vigorously and bloomed profusely every season. Before I put to the winter protection, I just point in a portion of well-rotted cow-dung, and prune the plants as required.

Rosa.

FLORICULTURAL CALENDAR FOR JANUARY.

GREENHOUSE.—This department should have good attendance during this month.

The herbaceous kinds of plants will require occasional waterings, but less frequent and in less quantities than the woody kinds. Succulents, as Aloes, Sedums, &c., should be watered very sparingly, and only when the soil is very dry. When water is given it should be as much as will moisten ALL the soil, where water is only given to moisten the soil an inch or two at the top and the other kept quite dry, the result is generally certain, namely, the death of the plant. The plan to be attended to is, water only when necessary, but a full supply when it is done. Air should be admitted at all times when the weather

is favourable, or the plants cannot be kept in a healthy state. When the weather is *damp*, foggy, &c., do not give air then, let a *dry* air only be admitted. If any of the Oranges, Lemons, &c., have naked or irregular heads, towards the end of the month, if fine mild weather occur, begin to reclaim them to some uniformity, by shortening the branches and head shoots; by this attention they will break out new shoots upon the old wood, and form a regular head; be repotted in rich compost in April, reducing the old ball of earth carefully, and replacing with new soil. After shifting, it would be of great use to the plants if the convenience of a glass case could be had in which to make a dung-bed that the pots might be plunged in; this would cause the plants to shoot vigorously, both at the roots and tops. Repot *Amaryllis*, &c. Tender and small kinds of plants should frequently be examined, to have the surface of soil loosened, decayed leaves taken away; or if a portion of a branch be decaying, cut it off immediately, or the injury may extend to the entire plant and destroy it. *Gloxinias*, &c., now beginning to push, should be potted.

Auriculas should, at the end of the month, be top-dressed, taking off old soil an inch deep, and replacing it with new; give air freely when dry weather.

Bulbs, as *Hyacinths*, &c., grown in water-glasses, require to be placed in an airy and light situation when coming into bloom. The water will require to be changed every three or four days. The flower-stem may be supported by splitting a stick at the bottom into four portions, so as it will fit tight round the edge of the glass at the top. Beds of *Hyacinths* will require attention if severe weather occurs, also beds of *Tulips*, &c.

The seed of *Calceolarias* should be sown at the end of the month, and be placed in a hot-bed frame, also cuttings or slips be struck, as they take root freely now.

Cuttings of *Salvias*, *Fuchsias*, *Heliotropes*, *Geraniums*, &c., desired for planting out in borders or beds during spring and summer, should be struck in moist heat at the end of the month, in order to get the plants tolerably strong by May, the season of planting out.

DAHLIAS.—*Dahlia* roots, where great increase is desired, should now be potted or partly plunged into a little old tan in the stove, or a frame, to forward them for planting out in May. As shoots push, take them off when four or five inches long, and strike them in moist heat.

Herbaceous Perennials, Biennials, &c., may be divided about the end of the month, and planted out where required.

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

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

Rose Trees, Lilacs, Pinks, *Hyacinths*, *Polyanthuses*, *Narcissus*, *Honeysuckles*, *Persian Lilacs*, *Primroses*, *Rhodoras*, *Persian Iris's*, *Sweet Violets*, *Cinerarias*, *Hepaticas*, *Aconites*, *Jasmines*, *Azaleas*, *Lily of the Valley*, &c., should regularly be brought in for forcing.

TENDER ANNUALS.—Some of the kinds, as *Cockscombs*, *Amaranthuses*, &c., for adorning the greenhouse in summer, should be sown by the end of the month.

Ten-week Stocks, Russian and Prussian Stocks, &c., to bloom early, should be sown at the end of the month in pots, placed in a hot-bed frame, or be sown upon a slight hot-bed, also some other of the tender kinds to prepare them strong for early summer blooming.

Protect the stems of tender plants with *Furze* branches, &c. The stems of tender climbing *Roses* are screened by such precaution.

Chrysanthemums, the heads of decayed flowers, should be dried, and saved for the seed which probably they possess, and be sown in spring and raised in a hot-bed frame.





Camellia Jap. Lowii.

THE
FLORICULTURAL CABINET,

FEBRUARY 1st, 1844.

PART I.

EMBELLISHMENTS.

ARTICLE I.

CAMELLIA JAPONICA LOWII.

TERNSTROMIACEÆ. MONADELPHIA POLYANDRIA.

THIS very strikingly handsome Camellia is an hybrid, raised by the same very successful amateur grower who first sent out *C. Rubescens*, *C. Lepida*, *C. Lentoniana*, and some others of the very finest varieties now in the English as well as the Continental collections. It flowered in the select collection at the Clapton Nursery, in the spring of last year, where it was seen by many of the most extensive growers in the kingdom, and also by several of the best and most competent judges, amongst whom may be named Mr. John Smith, of Dalston, and Mr. G. Press, of Hornsey, both well known in the horticultural world as successful cultivators of this noble and splendid family of plants; these gentlemen pronounced it to be a first-rate flower in every respect. A plant in bloom was shown at the London Horticultural Society's meeting on the 18th of April, (see 'Gardeners' Chronicle,' April 22, page 267). We must observe, however, that the reporter for the "Chronicle" made a mistake in stating *that it was* the same as Messrs. Low and Co. had exhibited at a previous meeting, the one the reporter alluded to being *C. Guthriana*, a small flower, and as round as a *Ranunculus* bloom, in no respect resembling the variety now figured. *C. Lowii* deserves to be grown in every collection, however select.

ARTICLE II.

OBSERVATIONS ON THE CULTURE OF THE RANUNCULUS.

BY MR. GEORGE LIGHTBODY, OF FALKIRK, SCOTLAND.

[Continued from p. 8.]

BLOOMING.

ACCORDING to the season being forward or the reverse, the flowers will commence to bloom from the 7th to the 21st of June. They will then require to be covered through the day to shade them from the sun, exposure to which spoils their beautiful colours. This is best done by having a low stage rising about two and a half feet at the sides of the beds and four feet in the centre. The awning is easily managed, when tied to two light rollers; in this form it is put on and taken off in an instant. When the sun is powerful, keep it down on the side next the sun near to the ground, but on the other side it may be partially rolled up to admit air, and should visitors arrive to see the bloom, the roller can be fastened to posts so as to enable visitors to walk under it, without exposure of the flowers to the sun. In fine weather the awning may be taken off at night and put on in the morning. Never allow the blooms to be exposed to the rain. During the bloom, water may be given every night as formerly recommended, but when the bloom is on the decline, cease to water. By using these precautions the bloom may be kept in perfection for a period of three weeks or more, to the great delight of all beholders, for there is nothing in nature more dazzling and striking than a mass of choice Ranunculus in full bloom. The recollection of a sight of the kind is lasting. The reason why I recommend a low stage is to prevent the flower stems being drawn. This is uniformly the case when a high stage is used.

MATURING THE ROOTS.

When the bloom is past, the object then is to have the roots ripened in fine condition. Let the beds be exposed to the full action of the sun; but it will be advisable to keep up the stage and have the awning in readiness to cover with in the event of wet weather setting in, for there is danger of the tubers beginning to grow again. Should the beds become saturated with moisture during hot weather, a gentle rain will do no harm, but avoid too much. Should the tubers

of any unfortunately start, my practice is to thrust a trowel diagonally into the soil, cutting the fibres of the plant a few inches below the surface, and gently raising the ball a little above the level of the bed. This practice I generally find successful; but should the plant thus treated continue to grow, my next resource is to take up the ball and put it into a Carnation pot, among some dry soil, and put it under glass. Should this fail, and the root is valuable, let it grow on, but put it into a greenhouse or frame where it can be protected from the risk of frost till the root attains to maturity.

TAKING UP THE ROOTS.

Cultivators who have valuable collections should never wait till the foliage of the whole are withered before they commence taking up; my advice is to look over the plants every day, and take up all whose foliage is withered, and continue doing so till the whole are secured. Clean the roots from soil; cut off the flower-stems and foliage with a pair of stout scissors close to the crown; shorten the fibres and place the roots in the bags or boxes appropriated for keeping them in, in a dry airy situation out of the sun. In the course of two or three days after taking up, look over the roots, they will then be in a soft and partially shrivelled state; then is the proper time for separating the roots without danger of breaking them. Mouldiness must be guarded against, by turning the roots occasionally till they are perfectly dry. Keep them in a dry place till planting-time comes round again.

RAISING SEEDLING RANUNCULUS.

The soil I use is rich maiden loam; in summer it is exposed to sun and air till it is quite dry; it is then broken fine by hand, and all worms and extraneous matter removed; it is then kept in a warm dry place till wanted. About the beginning of January I begin to prepare my boxes for sowing. I do this by mixing some finely sifted leaf-mould, also in a dry state, with the prepared loam, searching carefully for worms. This mixture is placed in the lower part of the box. On the upper the fine loam alone is placed so as to be in contact with the seed. Fill the box within half an inch of the top, then press the surface level with a piece of smooth board. The best time for sowing is about the end of January. Previous to doing so, moderately saturate the soil with tepid water through a very fine

rose, that will cause the water to fall like dew. Should the watering occasion any inequalities on the surface, fill them up and press all smooth again with the board. The best way to sow the seed is to take but a few in hand, and let them fall singly if possible, distributing them equally just clear of each other over the surface of the box. When this is done, cover the seeds lightly with some of the fine mould till they are hid; then give another watering: this will bring many of the seeds into view. Cover those that are exposed and place the box into its situation. The best situation is the front shelf of a greenhouse, or, for want of this, the window of a fire-room looking to the south. Water every second day at first, and cover any seeds that appear: when the sun becomes powerful, give daily waterings.

Guard against frost, for should the soil be frozen while the seeds are germinating, they will to a certainty be destroyed.

In four or five weeks, according to the amount of sunshine, the young plants will begin to appear. In coming up, many of them will appear with the bran of the seed attached to the young leaves, displacing the soil about the neck of the plant. In this case, some of the fine soil will require to be let fall about the plant to fill up the cavity. Many of the young plants will also (like the *Auricula*) throw themselves out. Look over the box occasionally, and put those that are out into the soil again, by making a small cleft, and pressing the soil gently about the neck of the plant. When the plants have about three leaves, turn the box every second day, to prevent the plants being drawn. About the third week in March, top-dress the box. First, remove carefully, without injury to the foliage or pulling up the young plants, all the green slime on the surface. Replace this with some finely-sifted old cow-dung in a dry state; let it fall equally among the plants, then give a good watering; after the top-dressing, they will have quite a gay appearance, and will begin to grow rapidly.

The first week in April the box may be removed to a cold frame, where it may have sun and air. Protect at night from frost.

About the end of the month, when danger from severe frost is over, the box may be removed to some sheltered situation where it will get the morning sun till near noon. Water daily during dry weather till the foliage begins to wither. When this takes place, let the box

become dry. Should wet weather occur just when the young roots are attaining to maturity, it will be advisable to place the box under glass. Take up the roots as the foliage withers down, and place them in a paper-bag in a dry place, where they may remain till the following February, when they are to be planted in the open ground and treated like the general stock. As the young roots are in general very small, be careful not to break them when planting: fix the claws firmly into the soil, and be certain that the crowns are uppermost. They may be planted a little closer than large roots; but small as the roots appear when planted, very few will miss blooming. It is rather a tedious process the planting a quantity of such small roots, but the enthusiastic florist will not complain at cold fingers and the time taken up to do this work correctly, for he expects to be rewarded with some fine new flowers to gratify him for his trouble and procure himself a name that will be famed among cultivators.

It too often happens that some of the young plants bloom in the seed-box: it is generally August or September before they do so. When this occurs, and there is a fine sort among them, there is no other way to preserve it than removing the box to a greenhouse or frame, where it should be kept dry and protected from frost till the root is matured.

These observations contain the practice I adopt, and I have no doubt that, if followed out, the youngest tyro may command success.

It may be asked, why all this trouble with the preparation of the soil? The answer is, experience has taught me that *Ranunculus* seed sown in soil whose temperature has not been much lowered vegetates much better than in soil that has been exposed to frost and rain through a part of the winter. Let any person try the difference; they will find that three seeds for one will vegetate in the prepared soil compared with seed sown in ordinary soil; besides, the larvæ of worms, &c., that may remain in the soil when laid past, will all be hatched by the time it is put through hand the second time. They will then be detected. A single worm getting into a seed-box will come up to the surface through the night, and, by disturbing the seeds, will cause much mischief, if not destroy the whole.

Such is my mode of culture resulting from the experience of many years. I can with confidence recommend it as safe and practicable. There are few persons now alive who have made more experiments

in the culture of the *Ranunculus* than I have, but the method of culture now detailed is the only safe one that will insure fine blooms and healthy roots.

I may here mention an experiment I tried lately. In 1841, I had a bed prepared in my usual manner, for which the following February I had no roots. Not liking to lose the use of the ground, I took a crop of Lettuces from it, and towards the end of October when they were used, the bed had sunk considerably, the surface was slightly pointed with the spade, taking care not to disturb the strata of dung. On the top was placed some fresh soil. Afterwards I thought the soil in this bed might be too poor. I got a pailful of gas-liquor from the gas-works; it was diluted with water, and the ammoniac fixed by the application of sulphuric acid, and then distributed equally over the bed with a watering-pan. The bloom in this bed was very strong; many of the flower-stems were two feet in height, and the blooms averaging from three or four inches in diameter; the roots lifted also large and clean. The size of the bed was twenty feet by four feet two inches wide.

ARTICLE III.

FLORICULTURAL GLEANINGS.—No. 13.

BRIEF BIOGRAPHICAL NOTICE OF THE LATE J. C. LOUDON, Esq.

BY MR. WILLIAM HARRISON, SECRETARY TO THE FELTON FLORISTS' SOCIETY.

THE lamented death of this distinguished individual took place on Thursday, the 14th of December last, at the residence of the deceased gentleman, in Porchester-terrace, Bayswater, in the 61st year of his age; and as I feel certain that any well-authenticated account of so eminent a man must be acceptable to the pages of a floricultural publication, I take the liberty of forwarding the following brief sketch of his earthly career from the pen of a respectable contributor to the "Gateshead Observer."

"John Claudius Loudon, Esq. was one of the ablest, most voluminous, and useful writers that this, or, perhaps, any other country has ever produced. Few persons can form any adequate idea of his herculean labours; for though his works are deservedly popular, yet the number and variety of his publications, possessed by readers of various classes and pursuits, seldom come at one time under the ob-

ervation of any individual reader. Many of his works, when viewed singly, are monuments of the most surprising skill and perseverance ; and, when taken collectively, they amount to an almost incredible result, which cannot fail to excite the highest astonishment.

“ Mr. Loudon was a native of Scotland ; but he removed in early life to London. He was by profession a gardener, but he devoted much time also to literary pursuits ; and his first communication which appeared in print was a biographical notice of the celebrated Abelard, written for Sheraton’s “ Cabinet-makers’ Encyclopædia,” which is in the possession of Thomas Sopwith, Esq., of Newcastle-on-Tyne. Among the most useful of the works which he afterwards conducted may be mentioned the ‘ Encyclopædia of Cottage, Farm, and Villa Architecture,’ 1300 closely printed pages of which are illustrated with 2300 engravings on wood ; and incalculable benefit has been afforded to the country by the vast amount of useful and practical information it contains. His ‘ Encyclopædia of Agriculture and Gardening,’ and many similar works, are elaborate condensations of an enormous amount of information ; but, wonderful as they are, they are exceeded by his great work, the ‘ Arboretum et Fruticetum Britannicum,’ which he published in 1838, at a cost of upwards of ten thousand pounds. This splendid work has been pronounced in the ‘ Quarterly Review’ to be ‘ complete in its kind, and a standard book of reference on all subjects connected with trees ;’ an opinion confirmed by all the principal reviews of Europe and America.

“ Mr. Loudon conducted at that time upwards of thirteen different publications, the bare enumeration of which would be of considerable length.

“ In consequence of the excessive labour which he devoted to the compilation of the ‘ Encyclopædia of Gardening,’ Mr. Loudon fell into ill health in 1821, which obliged him to have his right arm amputated, his left hand being at the same time so much injured as to leave him only the partial use of two fingers. The additional expenses to which he was thus liable, by having to employ draughtsmen and an amanuensis, and a servant to act as valet, tended materially to lessen the pecuniary advantages he might have reaped from his industry. His labours, which were continued with untiring zeal, at length finally undermined his constitution, and an attack of inflammation of the lungs terminated in chronic bronchitis, which forbade all hope of

his again resuming his professional duties as a landscape gardener ; and this veteran of science and literature may be truly said to have fallen a victim to that neglect which has too often been in this country the only return for the most substantial and enduring benefits.

“ Those who knew Mr. Loudon in private life will long entertain a deep regret for his loss, and will always cherish a remembrance of his truly excellent character and disposition. His vast and comprehensive talents were indeed ‘ clothed with humility,’ and were freely offered wherever they could be of use. He was most affectionate in all the relations of private life—generous in hospitality—candid in expressing his opinions—and an untiring and zealous advocate of every moral and social improvement, setting forth at all times an example of honourable industry and of public and private worth. He was a member of many of the leading scientific societies of Europe ; and none have laboured with greater zeal in the several departments to which his energies were directed. He expired at noon, on Thursday, the 14th of December, after a lingering illness, to the great grief of all who had the happiness of enjoying his friendship, and of knowing those excellent qualities of his mind which alone exceeded the extent and value of his literary and scientific labours.”

Felton Bridge End, January 10, 1844.

ARTICLE IV.

REMARKS ON THE TANK SYSTEM OF HEATING GREENHOUSES, HOTHOUSES, &c.

BY C. C. OF SOMERSETSHIRE.

HOPING that the following observations on the tank system of heating greenhouses, &c. will be in some degree serviceable to the readers of the CABINET, I forward them for insertion therein.

The remarks will be confined at present to the tank itself, the construction of which is very liable to error, which I, as a well-wisher, would try to remove. The tank altogether should be not less than one foot six inches deep inside ; it may be formed with wood, brick, or stone ; if with wood, it should not be less than two inches thick. To make the tank complete, it must be lined with lead or zinc, rather more than the height of the water. About the centre of the tank,

lengthways, must be set a row of bricks or stone to give circulation to the water, and to rest the covers on. The brick or stone should be about five inches high, which will be deep enough for the water; it must be covered with thick strong slates, and well cemented down: if these matters are attended to, it will prevent too much vapour in the house, which would be the case if the water was not well secured. On the slates should be placed two inches of small pebbles or coarse sand, which will cause the heat to rise in a gradual manner. There will be about ten inches to be filled up with any material as may be required. The formation being thus attended to, it will be sure to give the greatest satisfaction. The writer called at a neighbour's garden lately, and found they had just finished a large stove, and had adopted the tank system; but was sorry to find they had built the tank with stone of a very porous nature, only cementing the joints, consequently the stove was completely saturated with vapour, which would be very hurtful to ripening fruits. Excellent as the system is, if the construction of the tanks is not very carefully attended to, it will be certain to bring it into disrepute. These few hints will be quite sufficient for every thinking mind, and, as a sincere well-wisher, I rejoice to see this, the most pleasant of all pursuits, flourish with increasing vigour; and if I saw any obstacle, I would try to remove it by every means in my power. For further instructions I recommend Mr. Rendle's little book on the subject.

I intend in a short time to offer a few hints on the management and heating of greenhouses, which I hope will help to set at rest the controversy existing on the subject at present.

[We shall be glad to receive them.—CONDUCTOR.]

P.S.—There should be pipes carried from the top of the water to a little above the surface, which should be plugged, except when the vapour is wanted in the house, when they may be taken out for a short time.

ARTICLE V.

ON THE PROPERTIES OF THE TULIP.

BY A STAR IN THE NORTH.

THE first of which I consider to be shape. The flower should be composed of six petals, three outer and three inner; they should be alternate, and lie close to each other; they require to be broad and

round on the top, and quite smooth on their edges, and of sufficient width to allow of their edges lying on each other when fully expanded ; this will prevent any quarring, like Prince Leopold, which is decidedly bad ; the petals should also be firm in texture, and have a little swell outwards towards the lower part of the mid-rib of the petal, which forms the shoulder, and is the cause of the flower retaining its shape. The shape of the cup when fully expanded should be a semi-oblate spheroid, the stalk being inserted in the pole, which pole should be a little depressed ; this form I consider best for retaining the beauty in all its stages : it must be understood that I am speaking of a flower in full bloom, as the shape alters materially as it closes ; the petal ought to be level on the top, and not the inner three higher than the outer, nor the outer ones turned back, which is the case with some flowers, as Compt de Vergennes, and some others ; when a flower has passed its prime it is not uncommon, I might almost say general, for the three inner petals to become higher than the others, which arises from the three outer being in the character of the calyx, and the other the corolla ; the colour of the ground should be quite pure and rich, without stains or specks, whether white or yellow ; and the base of the petals around the stamina must be quite clear of any stain or grease, otherwise it will have what we call a dirty bottom, which every amateur dislikes, as nothing short of purity there will satisfy him, it being impossible to remove that defect from a broken flower, particularly if it should possess it when in a fine state ; it is also desirable that the yellow ground should have the same intensity of colour on the outside of the flower as on the inside, as some flowers, being nearly white on the outside, are rendered defective by it, and unfit for showing—certainly where they show in classes ; the Duke of Clarence is an example : the white ground should have a thick fleshy petal, and be quite pure outside ; indeed it is desirable that all flowers should have a thick fleshy petal. Tricolors, I confess, I am not partial to, although some of them are very handsome. The three principal classes of the florists' Tulips are the Rose (red and white), the Byblo-men (purple and dark on white), and Bizarres (various colours on yellow) ; in each class the colour should be well defined and brilliant, and free from the breeder colour, and not liable to flush, which is bad, particularly if it arises from a delicacy of the vessels containing the colouring matter, as it then becomes a character of the kind ; some

sorts flush after they have been in flower for a day or two; the more general cause of flushing is the confined damp in the stages at night, inducing the flower to imbibe more moisture than they require, which ruptures the vessels, and when the sun rises the colour is diffused by the heat; this is merely accidental, and does not affect the general character of the flower. The feathered flower is the one I most prefer, which is the feather commencing on the edge of the lower part of the petal at a short distance from the stamina, and continuing quite round to the same distance on the other side of the petal, being marked deepest on the top; each petal ought to be alike; the rest of the ground colour to be quite clear from patches or spots, which would destroy the beauty of the bloom. The flamed flower, in my estimation, should have this feather on either side, and the points touching the feather; at the same time sufficient of the ground colour must be preserved between the flaming to show it to advantage. The more general character is a flame without any feather; it forms a star-like appearance, which is very beautiful. In all cases where there is a second colour in the flame, it should be margined by the darker, as it prevents any running taking place. The single stripe up the petal is curious, and many of the other distributions of colour showy, but can scarcely be called perfect. However equally they may be placed—whatever the character may be—there should always be a circle of the ground colour round the stamina; the stem should be strong enough to keep the flower erect without the aid of a stick; it should also be elastic, and neither too tall nor short for the size of the flower.

January 12, 1844.

ARTICLE VI.

REMARKS ON GROWING CARNATIONS IN POTS.

A CORRESPONDENT, in an Article inserted in the CABINET, and who grows his Carnations and Picotees in the open ground, requested to be furnished with some suggestions with the view to their better protection from the ravages of the earwig, which, at the season of their flowering, as is well known, is very numerous, and not only destructive to the blooms, but equally so to the seed, to which it obtains access just at the period of ripening. To this request no one has yet replied. I shall, therefore, make a few observations upon the subject, and point

out the most effectual, as well as most economical, plan that has occurred to me for the attainment of so desirable a result.

Carnations and Picotees are usually grown in pots, not only that they may be more easily protected from insects and the weather, but that the necessity for stooping to attend to the flowers when in bloom, and for the purpose of layering afterwards, may be avoided; the troublesome process of which latter operation, when the plants are in the ground, is sufficient to deter many persons from attempting that mode of culture. The really enthusiastic florist overcomes every difficulty, and thinks little of trouble; but to those who are less ardent, the act of placing themselves on their knees, with their heads bent downwards, for a few hours, is by no means an amusement. It is the first of these considerations that has, in a great degree, caused the Pink to be less cultivated than it deserves, and has induced many persons to attempt to grow it in pots, in order to avoid so much stooping. But besides these arguments in favour of pot culture, many persons who grow Carnations and Picotees also cultivate the Tulip, over the bed of which, when they are out of bloom, a stage is easily erected, with every means of protection, and the greatest facility in paying the requisite attention; but to those who have no Tulip-bed, and who do not choose to incur the expense of a stage and awning, growing the Carnation in pots does not offer similar advantages, for they are then quite as much exposed to the attacks of insects and to every vicissitude of weather as when in the open ground. The blooms themselves may be easily protected by caps or shades from the sun; but the plants materially suffer from the heat that generally prevails at that period of the year, unless extra attention be paid to them in watering and top-dressing. To those who cultivate for sale, there is another objection to growing the Carnation in the ground, in the too robust layers that are produced; but this will apply, in some measure, to amateurs, inasmuch as moderate-sized, healthy plants are generally the best, both for stock and blooms.

It is almost impossible to conceive that under any other system these flowers can be brought to a greater state of perfection than that attained by some of our successful cultivators; but I have no doubt that, with those who are not so skilful, equally fine blooms may be produced in beds occasionally.

ARTICLE VII.

REMARKS ON THE PROPAGATION OF PLANTS BY CUTTINGS.

BY A GERMAN AMATEUR GARDENER.

As an amateur gardener, having a hothouse, greenhouse, and conservatory, well stocked with the best kinds of plants to which each erection is adapted, I have had considerable practice in propagating by cuttings the sundry plants I possess, as also in cuttings obtained elsewhere; and from the success I have realized I am induced to forward the following remarks on the process, hoping they may be serviceable to other persons, who, like myself, derive pleasure in so interesting a pursuit.

When I obtain cuttings at a distance, I find it in most cases essential to success to have the ends which have been cut dipped in puddle, or stuck into a portion of clay, for the crude sap in the cutting is not raised by endosmose but by the process of evaporation; care must be therefore taken that the surface of the cut does not become dry before being put in the earth, and air get into the lower end of the vessels, for as soon as this takes place only very strong shoots are capable of drawing up moisture, as has been proved by the experiments of various philosophers. The cuttings should therefore be stuck in wet sand, clay, &c. if they cannot immediately be put where they are intended to remain, although it were better to avoid this. If, however, they are such as ought to lie a day or two, in order to insure success, as some acacias, &c., it ought to be in a damp place; and the precaution must be taken, if possible, to cut them again before planting. If the long-leaved kinds be stuck in the earth immediately after being taken from the parent plant, the inner bark will become black in from fourteen days to four weeks, and the cutting will perish.

This phenomenon appears to be in close connexion with the form of the leaves of these plants, as those of the acacias have very small stomata. In their stead, on the under side of the leaves of the latter plants, are small dimples, lined with short hairs, which the diosmas already mentioned also possess. Now, as the crude nourishing matter is drawn up through the open wood in its existing state, and received by the cutting, while the spongioles of the roots only imbibe it in a very thin solution, it appears that the above-named plants, on account of the peculiar formation of their leaves, cannot

elaborate in any great quantity this gross nourishing matter; and hence arise stagnation of the juices, and the before-mentioned appearances. The good effect of leaving these cuttings lying, and thus interrupting the growing process, and preventing the superabundant rise of the crude nourishing matter, will be apparent; and this is the more probable, as it is usual, for the same reason, to put a piece of mould round the cut.

Cuttings of succulent or fleshy plants must also lie for a time before planting, and on no account in a moist atmosphere, that the surface of the cut may be sufficiently dried. They retain so many watery particles in their cellular tissue that, when this is neglected, the face of the cut soon rots. The species of the families *Melocactus*, *Echinocactus*, *Mammillaria*, *Opuntia*, *Cereus*, &c., have an extremely thick bark, and a firm epidermis with very few stomata; on which account the process of evaporation is so slow that they remain alive for a long time without receiving external nourishment. The dried cuttings of these plants, therefore, are generally planted in dry earth, and set in a bed or house filled with warm air, and are not watered till they have formed roots from the nourishing matter accumulated in themselves. The roots can scarcely ever penetrate the thick bark, and are produced between the wood and the bark. In some of the *Opuntia* and *Cereus* species, however, they come out of the bark at the side. The other succulent and fleshy plants which form side roots, such as the *Aloe*, *Haworthia*, *Sempervivum*, *Mesembryanthemum*, *Crassula*, *Plumieria*, and its congeners, as well as all the *Cacti*, may be watered as soon as they are planted. Lastly, plants with milky juice also require similar treatment, as they are equally liable to damp off.

As soon as a part of one of these plants is cut off, the milky juice exudes in great quantities, covers the whole surface of the cut, and hardens like caoutchouc, by which the vessels are all stopped up, and the ascension of the moisture prevented. Cuttings of *Ficus*, and the dry roots of *Euphorbia*, are put in water, where they remain twenty-four hours before they are put in the earth. The same end is also attained when they are put in dry sand immediately after being cut, and afterwards the sand and the milky juice cleared away. Only the succulent and very milky *Euphorbias* must lie for some time.

Although it is proved by the above that the cutting receives as much moisture through the face of the cut as it loses in ordinary cir-

cumstances by evaporation, yet no sooner is it placed in very dry air, or in a draught, or exposed to the sun's rays, than a disproportion takes place between them. When this is the case, more watery particles are lost through evaporation than are raised in the body of the wood, which is very easily perceived in fleshy-leaved plants. On this account, hot-beds and houses prepared on purpose for propagating should be used, in which the outer air can be excluded, a moist temperature maintained, and, in very warm sunshine, a dense shade can be given. Bell-glasses should be placed over the more difficult-rooting cuttings, to protect them from all external influences which might destroy them before the made roots. The most proper form of bell-glass is that which gradually tapers from the base to the top, as from glasses of this shape the moisture, which adheres to the inside in the form of drops, runs gradually off without the dropping so injurious to cuttings. This disadvantage is found in all other forms more or less, such as those that are round at the top, or cylindrical, with the top bluntly truncated; and also in beer-glasses, which are often applied to this purpose. The most unsuitable glasses, which are, however, much used, are those small at the base, and swelling out like a globe.

The enclosed air under the glasses will soon lose its oxygen, through the respiring process of the plants within, and also be vitiated by other exhalations; and, if it is not changed, it generates mould, and the cuttings lose their fresh appearance. For this reason, the glasses, if possible, should be daily ventilated and wiped; or, what is still better as it will entirely renew the air, dipped in a vessel of cold water, and well shaken, so that too many drops of water may not remain on the glass, although they are not so injurious to the cuttings. In an extensive establishment, this operation requires too much time, and therefore round holes, of about from half an inch to three-quarters of an inch in diameter, should be made at the top of the glasses; and these will prove very serviceable, if the pans stand on a warm platform in the houses or beds prepared for the purpose. In small gardens, where the cuttings are placed with other plants in the houses on the bed or shelf under the windows, glasses without holes would be preferable.

The cuttings themselves should not be stuck too close together, and all the leaves should be left on, which are essential for elaborating the absorbed and deposited nourishment; removing the lower leaves

has a particularly bad effect on the rooting. There is an exception, however, in those which have small close-set leaves, such as the *Ericas*, &c.; which, when entirely surrounded with earth, soon begin to rot, and infect the branch, and therefore the leaves should be removed from the portion put into the earth. All decayed parts should be taken carefully off; and woolly-haired cuttings should not be sprinkled, for as the moisture adheres to them for a long time, they are very liable to rot.

With these, and in general all plants liable to decay, the bell is either placed within the edge of the pot, and the water poured between the two rims, by which sufficient moisture is communicated to the pot; or a small unglazed pot, without hole at the bottom, filled with sand or mould, is plunged to the rim in the middle of a larger pot; the cuttings are then stuck round the outer edge of this large pot, and the water is only poured in the smaller pot when as much moisture penetrates through the sides of the pot as the cuttings require.

PART II.

LIST OF NEW AND RARE PLANTS.

ANGREECUM PELLUCIDUM. Transparent Angrec. (Bot. Reg. 2.) Orchidaceæ, Gynandria Monandria. A native of Sierra Leone, imported by Messrs. Loddiges's, with whom it has bloomed. The raceme of flowers is pendant, about six inches long. Each blossom is about three-quarters of an inch across, White.

CATLEYA PUMILA. Bordered dwarf Catleya. (Bot. Reg. 5.) Orchidaceæ. Gynandria Monandria. In Messrs. Loddiges's collection. A native of Brazil. Sepals and petals rosy-lilac; labellum same colour, with the lip stained with blood-red, having a small white margin. Each blossom is about four inches across.

CATLEYA MARGINATA. White bordered. (Pax. Mag. Bot.) Orchidaceæ. Gynandria Monandria. Imported from Brazil by Messrs. Loddiges's, with whom it has recently bloomed. The flowers are very large compared with the size of the plant, and are borne singly on the top of the fresh pseudo-bulbs. Each blossom is four inches across. Sepals and petals rosy-lilac; lip stained with a deep blood-colour, having a very distinct white margin.

CLEMATIS MONTANA; variety *Grandiflora*. Mountain Virgin's Bower. (Bot. Mag.) A native of Northern India, where it was discovered by Dr. B. Hamilton, in the valley of Nepal. Messrs. Veitch's have bloomed it in the open air in their nursery. The flowers are pure white, single; produced numerously; very fragrant. Each blossom is near four inches across. It strikes readily from cuttings, and deserves general cultivation; it blooms during a long period of the summer.

CONVOLVULUS OCELLATUS. Purple-eyed Bindweed. (Bot. Mag. 4065.) Convolvulacæ, Pentandria Monogynia. From South Africa, and has bloomed in the greenhouse at the Earl of Derby's, Knowsley Park. The flowers are white, with a purple eye. Each blossom is about an inch across.

CROCI AUTUMNALES. Autumnal Crocus. (Bot. Reg. 3.) Iridaceæ, Triandria Monogynia. Six autumnal Crocus's, which are in the collection of the Dean of Manchester. The blossoms are purple, lilac, and white.

EUONYMUS JAPONICUS. Japan Euonymus. (Bot. Reg. 6.) Celastraceæ Pent. Hexandria Monogynia. A native of Japan; grows a bush about six feet high. It is a hardy evergreen. The flowers are very small, of a greenish-white.

GOMPHIRENA PULCHELLA. Large-flowered globe Amaranth. (Bot. Mag. 4064). Received by Messrs. Veitch's, of Exeter, from Monte Video. The plant in all its parts much like the common Globe Everlasting. The heads of blossoms are larger, and of a brighter rosy hue. It has bloomed in the greenhouse at Messrs. Veitch's. It appears to be annual, and very likely to be an ornamental flower for the border during the summer.

LUPINUS ARVENSIS. Field Peruvian Lupine. (Bot. Reg. 1.) Leguminosæ. Diadelphia Decandria. A half-hardy biennial, growing from one to two feet high; flowering the greater part of summer and autumn. The flowers are produced in a raceme of about three inches long, purple and yellow.

TRIPTILION SPINOSUM. Spring Triptilion. (Pax. Mag. Bot.) Compositæ. Syngenesia Æqualis. A native of Chili, seeds of which were sent to Mr. Frost, the skilful gardener at Dropmore, where the plant has bloomed. It is an herbaceous perennial. The flowers are produced very numerously in corymboas, heads about two inches across, of a most intense blue. It is a very interesting plant, well deserving a place wherever it can be grown. It can be increased by a division of the roots, being made in autumn early enough to strike before winter. It produces seed, though but sparingly; they must be sown as soon as ripe.

TURREA LOBATA. Lobed Turrea. (Bot. Reg. 4.) Meliaceæ. Monadelphia Decandria. A stove plant, from Sierra Leone. The appearance of the plant is much like that of an *Althæa frutex*. The flowers have the appearance of a small orange blossom, white, but not fragrant.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON LOTUS JACOBÆUS.—You would greatly oblige a Subscriber of your CABINET. If you would inform me what soil the "Lotus Jacobæus" will prosper best in a bed.

Cambridge, January 17.

T. N. E.

[A rich light loam. We have grown it in such in beds for many years, and it blooms profusely. When in a strong clayey loam, it produces much more foliage, and less bloom. If a strong loam exists, mix with it one half leaf mould and sandy peat.—CONDUCTOR.]

MOORE'S VICTORY PELARGONIUM.—Lucy would be glad if some reader of the CABINET would inform her where that beautiful variety of Pelargonium Moore's Victory, can be obtained. An early reply would be considered an additional favour.

Rochester.

ON ELICHRYSUM PROLIFERUM.—I should be much obliged if any of your correspondents would inform me (through the medium of the CABINET) the best method of propagating and cultivating the "Elichrysum proliferum." An early answer would much oblige

A THREE YEARS' SUBSCRIBER.

ON BLOOMING SEEDLING PELARGONIUMS.—In a paper on the raising Geraniums from seed, by Mr. Cock, of Chiswick, in the January Number of the CABINET for 1841, that gentleman says:—"If they do not show flower by the beginning of July, I plant them out on a south-aspected border, &c." Does Mr. Cock mean that they should be turned out of their pots and planted out, or plunged in their pots? An answer in an early Number will greatly oblige

A CONSTANT SUBSCRIBER.

ON A LIST OF ERICAS.—A young gardener will be obliged by a list of twenty-four of the best kinds of Ericas.

Kent.

[*Erica tricolor*, *E. Hartnelli*, *E. splendens*, *E. mundula*, *E. tenuiflora*, *E. campanulata*, *E. jasmiflora*, *E. conspiciua*, *E. tumida*, *E. depressa*, *E. Cavendishii*, *E. perspicua*, *E. perspicuanana*, *E. sulphurea*, *E. aristata major*, *E. Beaumontiana*, *E. odorata*, *E. ventricosa superba*, *E. vestita coccinea superba*, *E. cerinthoides*, *E. metulæflora bicolor*, *E. Westphalingia*, *E. radiata*, *E. tricolor superba*, *E. ventricosa coccinea major*, *E. inflata rubra*. These are the most beautiful we have seen at the London Horticultural Societies' exhibitions; the prices are from 1s. to 2s. 6d. each. The other plants our correspondent mentions are 1s. 6d. each; they succeed well in the situation he named. The list he asks for can be sent when address is supplied.—CONDUCTOR.]

ROT IN PANSIES.—During 1841 and 1842 a disease attacked my Pansies, and they rotted off close to the ground. The past season I adopted the following method, and with perfect success:—The first week in May I mixed a compost of equal portions of rich loam, fresh loam, and leaf mould, to which I added a moderate portion of sand, and about half a peck of lime, to a barrowful of compost; this I forked in two or three inches deep close to and around the plants, and they flourished admirably.

CLERICUS.

PLANTS TO GROW IN WARD'S CASES.—Some remarks being made on Ward's Glass Cases for plants in the October number of the CABINET, I am desirous of knowing what sort of plants flourish in such habitation, and if any peculiar mode of treatment is requisite.

A LEARNER.

[Nearly any kind of plant of the required size will succeed with good management, such as Camellias, Fuchsias, Azaleas, Chorozeas, Pelargoniums, Cactus's, Mimulus, any of the bulbous tribe, as Hyacinths, Crocuses, &c., Ferns, Jasmium, Chinese Primroses, &c. A portion of air is admissable into the cases, and the usual attention to water, &c., is only requisite.—CONDUCTOR.]

ON DWARF EARLY BLOOMING SHRUBBY PLANTS.—On a sloping lawn which is in view from my sitting-room I have a border forty yards long planted with various kinds of shrubs, the lowest of which is half a yard high. In front I have a row of Crocuses in variety for spring bloom, but no shrubs to bloom then nor earlier than the Rhododendrons. I should be obliged by a list of a few dwarf shrubby early-blooming plants to make a row behind the Crocuses, and to grow about six inches to a foot high. A reply in the January CABINET will be an additional favour.—LUCY.

Andromeda calyculata, white, March.

Ditto, with three varieties, white, March.

A. angustifolia, white,

A. dealbata, pink, April.

A. polifolia grandiflora, pink, April.

A. minima, pink, April.

A. olæfolia, pink, April.

A. revoluta, pink, April.

A. tetragona, white, April.

Rhodora Canadensis, rose, April.

Daphne Mezereum, rose, white and pink, by pinching the leading shoots, will bloom dwarf, March.

Daphne collina, purple, March.

Lauristinuses, kept dwarf by pinching leading shoots, and will bloom all winter.

Ulex, double furze, is easily kept prostrate, yellow, March.

Erica carnea, red, March.

Erica mediterranea, purple, April.

Erica minima, red, April.

Erica vulgaris, several varieties, as white, red, rose, purple, &c., April.

Lonicera, (Honeysuckle). There are several bloom in March and April, yellow, of shades, red and purple, all easily kept as dwarf bushes.

Ribes sanguineum, with several varieties, red, April.

Ribes aureum præcox, golden, April.

Both kinds are, by pruning, easily kept quite dwarf.

Azalea nitida, white, April.

Azalea pontica pallida, yellow, April.

Azalea pontica tricolor, red, April.

Pyrus floribundus, white, April; is easily kept dwarf.

REMARKS.

ON STRIKING CUTTINGS IN BURNT CLAY.—Having been very successful in striking cuttings of nearly every kind of stove and greenhouse plants I have in my collection (which consists of most of the usual handsome flowering shrubby kinds) in burnt clay, I am induced to recommend the plan to others. Burnt clay has the property of absorbing ammonia from the atmosphere, which affords a constant and regular stimulus to the cuttings, and enables them to send out the radical fibres very quickly.

G. S.

ON TULIPS AND ANEMONIES, &c.—I have been a subscriber to your very useful CABINET from its first commencement, and assure you I always peruse its pages with great interest; but I am surprised that you should lend them for the insertion of so senseless a paragraph as appeared in the Number for December last, headed "On Tulips and Anemonies." The author, I see, subscribes himself a Southlander, and to judge from his taste and judgment in floriculture, I think he might have written Zealander; but come from where he may, he can never have seen a good tulip bed, where, as Mr. W. Harrison says in your last volume, page 80, "All other beauties hide their diminished heads." Or he may be like many more would-be florists, fancies those flowers that require the least attention. I doubt not but he has a good stock of single Anemonies, Hepaticas, Crocuses, Snowdrops, Aconites, &c., all certainly very pretty, and cheap, but to set them above the Tulip, the queen of florists' flowers, is past forgiveness.

Tell him, Mr. Editor, in your next, he ought to consider himself an outcast of florists, and that his natural death will never be regretted by them.

I am only a cottager, and my daily employment engages the principal of my time, yet I can find time and means to grow, besides Southlander's favourites, a few of my own, and can, at this dreary season of the year, walk round my tulip bed and mark every spot where my particular favourites lie hid, and with more pleasure, perhaps, than Southlander views his beautiful single Anemonies.

A KENTISH COTTAGER.

LEONOTIS LEONURUS.—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 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.

Somerset.

W. W. HALL.

GUANO MANURE.—That the manures in present use, and the slovenly and expensive modes of applying them, are inefficient for the purposes required, no person can doubt; and I trust the time is not far distant when every agriculturist will coincide with the opinion there expressed. If individuals would but discard from their minds all prejudice, all dread of innovations being made on the old system, and discontinue those practices which they have hitherto adhered to, merely because their forefathers did so, I feel confident one fair trial of guano, bone-dust, nitrate of soda, and many other substances, would convince even the most sceptical that it is to their interest to continue the use of them, and that their lands never previously produced such heavy crops. Numerous experiments have been made on the guano, and the details given in various provincial papers by gentlemen who have no motive in misstating facts, and the result in every case appears to have been satisfactory. I can corroborate those statements in all essential particulars, and assert that, as a general fertiliser, and in the growth of wheat, barley, oats, hops, turnips, wurzel, and on grass lands, guano will be found one of the most valuable manures of modern introduction. Several of my acquaintance have tried it in the cultivation of Pines, Melons, Cucumbers, &c., and many florists' flowers, and all concur in giving it the highest character. The quantity used for the latter purposes was about a quarter of a pint of manure to one barrowful of common garden soil, but probably these proportions may be improved upon. From the experiments made it would appear that two hundred weight of guano is sufficient for an acre of wheat, barley, or oats. I am myself going to use guano in the cultivation of Dahlias, Carnations, Pinks, and Pansies, and shall forward the result in due season. Guano is obtained from islands in the South Seas, where it forms a stratum many feet thick, it being the accumulation for ages of the excrement of innumerable sea-fowl. It is used as a manure with great advantage on the coast of Peru, where the soil is otherwise extremely sterile. Its composition is said to be—

| | | |
|---|-------|---|
| Earthy insoluble salts, principally phosphate of lime | 29 | 2 |
| Soluble salts, fixed alkaline sulphate, and chloride | 2 | 5 |
| Organic matter | 68 | 3 |
| | <hr/> | |
| | 100 | |
| The organic matter consists of— | | |
| Lithic acid | 16 | 1 |
| Ammonia | 8 | 7 |
| Other organic matter | 43 | 5 |
| | <hr/> | |
| | 68 | 3 |

EXPERIMENTS ON VARIOUS FLOWERING PLANTS, WITH GUANO AND NITRATE OF SODA. By J. E. TESCHEMACHER.—Small parcels of the new manure guano having been very generally circulated in this vicinity, it is right to put those in possession of it on their guard against using it too freely, many plants in England and some here having been killed for want of proper care in the application of it. Guano is an extremely powerful and warm manure, and if applied in large quantities, or in lumps, destroys the roots. For Pelargoniums, Roses, and all hardy, strong-growing plants, one teaspoonful to a quart of earth, or about 1

part in 100, is sufficient; it should be pulverised and well mixed with the earth in which a plant is to be repotted. When it is not convenient to repot, the earth may be gently stirred on the surface of the pot one or two inches deep, and the guano pulverised, then mix in; the plants should be kept well watered. Besides Pelargoniums and Roses, I have tried it on the Myrtaceous family, on Ericas, Fuchsias, and Camellias; its effects on these are equally surprising. I have been also trying experiments on various plants with nitrate of soda; in every case I placed two plants, of the same species and of nearly the same size, close together; one of them was watered three times a week with a very weak solution of this salt, the other was under the usual management. The effect of the nitrate of soda has now become very evident, the plants watered with it are larger and earlier in bloom than the others; it appears, however, to me, probable that these effects will be rather evanescent, and the plants will always require this stimulant. I observe in the English publications that this constant necessity for the stimulant is urged against all these new manures, but surely there is no strength in this argument. All manures become exhausted, and the farmer has always to apply the stimulant of his manure-heap to make his land bear. From some experiments I have made, I think that guano will prove a manure of much greater permanence than any that is now in use, particularly in soils deficient in phosphate of lime.—*Hovey's Magazine of Horticulture.*

ON YEAST AS A MANURE.—Having seen the most surprising effects from refuse barn 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.

H. B.

ON TUSSILAGO FRAGRANS.—I do not know any border plant that is a greater favourite with the ladies than the beautiful heliotrope scented flower of *Tussilago fragrans*, 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 degrees; 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.

GESNERA ZEBRINA.—In order to have the *Gesnera Zebrina* bloom in a dwarf state, the ends of lateral shoots being cut off as soon as they appear to have formed flower-buds, inserted in sandy loam, and placed in moist heat, soon strike root, and then bloom nearly as fine as if allowed to remain on the parent plant, but in a very dwarf and compact state. I have a number of such struck plants

in fine bloom, which now make pretty dwarf ornaments in the greenhouse, and appear to be likely to do so for most part of the winter.
Newport place, Dec. 4, 1843.

T. SACKETT.

GROWING AMARYLLIS BELLADONNA IN POTS.—This is a plant of the easiest growth, generally blooming in September and October, and adding much at that season to the beauty of, the greenhouse or parlour. The soil best suited to the bulb is composed of half sandy loam, quarter leaf-mould, and a quarter old hotbed manure, with sand in the proportion of nearly one-third of the whole. The bulbs should be potted in August or September, and those with flower-buds will soon throw up a spike of elegant flowers. Give good drainage, with broken potsherds, coarse at the bottom and finer above, and fill the pots with the compost; place in the bulb, setting it down so as to leave about one-third of the top above the surface; finish with a good watering through a fine rose, or with a syringe, and place the pots in a frame or in the greenhouse, where the bulbs will speedily take root, and produce their flowers. But it is after this that the bulbs require the most attention, to make them bloom well another year; for upon the growth of the leaves, and the great quantity of sap stored up in the bulb, depends entirely its future excellence. As soon as the flowers have faded, the stem may be cut off just above the bulb; good supplies of water should be administered, and leaves will begin to put forth; in the course of two or three months they will have acquired their full size, and watering should then be gradually diminished until the foliage is completely dried up. During their growth the plants should be placed in a sunny situation, and as near the glass as convenient. When the bulbs have completed their growth, which will probably be in the month of February or March, they should be placed away on a dry shelf, turning the pots upon their sides, but not shaking out the bulbs. Here they may remain until August or September, when the operation of repotting should commence again.—*Hovey's Magazine of Horticulture.*

ON DIGGING THE GROUND BETWEEN SHRUBS.—Having travelled to a considerable extent through the Midland Counties during the last two months. I was much pleased to observe that wherever it appeared to be practicable a shrubbery of some extent was an ornamental appendage to the dwelling-house. I was struck with the mode of management however, which in numerous instances prevailed, viz., digging to some depth around the shrubs, which in every case I saw produced an injurious effect on the shrubs, especially those planted nearest to view at the front of the borders; and most of such are the handsomest kinds; the fact was numerous specimens were so injured by it as to be stunted in growth and of a sickly appearance, I now allude to evergreen shrubs. It has been my practice for the last ten years to regularly spread over the surface of the border, to the extent of my best shrubs, all the leaves which drop from them, and at the end of November, if not earlier, just to cover them over with a sprinkling of fresh soil; this not only retains them where placed but they rot by the spring and form the most natural nutriment for the surface fibrous roots of the plants, and I have invariably found the plants to be much benefited by it, growing and blooming more vigorous; the surface of the border too is as neat as if dug, &c., according to the custom I deprecate, and the evil of cutting and lacerating the best (fibrous) roots is obviated.

I had not a shrubbery before I came to my present residence eleven years back; when I came here I found a shrub border of a hundred yards long forming a direct line on the east side of the front of my dwelling; being along the termination of that side of the grass lawn, it had been annually dug, and along the front, nearest the grass, a quantity of herbaceous perennial, biennial, and annual flowers had been grown, this did not accord with my taste, I therefore had the border raised with soil, and turf laid along the front of the border so that the lower branches of the shrubs lay upon the grass and the twigs formed the boundary line for future; the effect was much more natural and pleasing, and I formed my flower border in a situation in accordance with the nature of the plants.

Vicarage, Huntingdonshire.

CLERICUS.

NEW CHRYSANTHEMUMS.—The following description of the new French Chrysanthemums we noted down when the respective kinds bloomed this season All are pretty, and several of them particularly so.—**CONDUCTOR.**

- Malvinia, flowers double, deep pink, petals broad.
 David, flowers double, in fine clusters, yellow.
 Itobate, flowers double, pretty pink, with a light centre.
 Solon, flowers double, yellow.
 Princess Morea, flowers double, lilac-purple, with a light centre.
 Coccinea, flowers double, Ranunculus form, reddish scarlet upper side of petals, lower buff colour.
 Flecheir, flowers double, pink, petals broad.
 Julius Cæsar, red, with a yellow centre.
 Isoler, flowers double, purple
 Phidius, flowers double, Ranunculus form, rosy-salmon.
 Duchess de Montebelle, flowers double, in fine clusters, blush, petals broad.
 Bella Donna, flowers double, with a centre nearly white.
 Abelard, blush, quilled, pretty.
 De Crequi, flowers in fine clusters, lilac, petals broad.
 Sappho, orange red, petals broad.
 Louis Philippe, flowers very double, centre blush, the other portion a pretty purple.
 Irene, flowers double, in fine clusters, yellow.
 Leontine, light red.
 Compte d'Eu, semi-double, flowers in clusters, rosy red.
 Incomparable, flowers double, centre buff, the other portion red, petals broad.
 Imogine, flowers semi-double, buff, with a pink tinge.
 Bejoin, flowers semi-double, blush, petals broad.
 General Labourg, flowers double, deep blush, petals broad.
 Aristides, outer petals red, centre ones orange, flower double.
 Dr. Petit, lilac, semi-double.
 Horatia, lilac purple, petals broad, double.
 Duc d'Albuffre, buff, outer petals reflex.
 Lamarque, golden yellow.
 Marshal South, bright yellow, very neat.
 Horace, purple, broad petals.
 Timeon, yellow.
 Georgiana, blush.
 Redonnel, red, semi-double.
 Moreau, dull red.
 Cora, blush, broad petals.
 Christopher Columbus, blush, broad petals, double.
 Aimie Jean, dull red.
 Bethulea, lilac-purple, petals broad, flower large.
 Demosthenes, flower double, the centre of it yellow, the ends of the petals red.

FLORICULTURAL CALENDAR FOR FEBRUARY.

GREENHOUSE.—This department should have good attendance during this month.

The herbaceous kinds of plants will require occasional waterings, but less frequent and in less quantities than the woody kinds. Succulents, as Aloes, Sedums, &c., should be watered very sparingly, and only when the soil is very dry. When water is given it should be as much as will moisten ALL the soil, where water is only given to moisten the soil an inch or two at the top and the other kept quite dry, the result is generally certain, namely, the death of the plant. The plan to be attended to is, water only when necessary, but a full supply when it is done. Air should be admitted at all times when the weather is favourable, or the plants cannot be kept in a healthy state. When the weather is damp, foggy, &c., do not give air then, let a dry air only be admitted. If any

of the oranges, lemons, &c., have naked or irregular heads, towards the end of the month, if fine mild weather occur, begin to reclaim them to some uniformity, by shortening the branches and head shoots; by this attention they will break out new shoots upon the old wood, and form a regular head; be repotted in rich compost in April, reducing the old ball of earth carefully, and replacing with new soil. After shifting, it would be of great use to the plants if the convenience of a glass case could be had in which to make a dung-bed that the pots might be plunged in; this would cause the plants to shoot vigorously, both at the roots and tops. Repot Amaryllis, &c. Tender and small kinds of plants should frequently be examined to have the surface of soil loosened, decayed leaves taken away; or if a portion of a branch be decaying, cut it off immediately, or the injury may extend to the entire plant and destroy it. Gloxinias &c. now beginning to push, should be potted.

Auriculas should, at the end of the month, be top-dressed, taking off old soil an inch deep, and replacing it with new; give air freely when dry weather.

Bulbs, as Hyacinths, &c., grown in water-glasses, require to be placed in an airy and light situation when coming into bloom. The water will require to be changed every three or four days. The flower-stem may be supported by splitting a stick at the bottom into four portions, so as it will fit tight round the edge of the glass at the top. Beds of Hyacinths will require attention if severe weather occurs, also beds of Tulips, &c.

The seed of Calceolarias should be sown at the end of the month, and be placed in a hot-bed frame, also cuttings or slips be struck, as they take root freely now.

Cuttings of Salvias, Fuchsias, Heliotropes, Geraniums, &c., desired for planting out in borders or beds during spring and summer, should be struck in moist heat at the end of the month, in order to get the plants tolerably strong by May, the season of planting out.

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

RANUNCULUSES and ANEMONES should be planted by the end of the month.

Herbaceous Perennials, Biennials, &c., may be divided about the end of the month, and planted out where required.

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

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

Rose Trees, Lilacs, Pinks, Hyacinths, Polyanthus, Narcissus, Honeysuckles, Persian Lilacs, Primroses, Rhodoras, Persian Iris's, Sweet Violets, Cinerarias, Hepaticas, Aconites, Jasmines, Azaleas, Lily of the Valley, &c., should regularly be brought in for forcing.

TENDER ANNUALS.—Some of the kinds, as Cockscombs, Amaranthuses, &c., for adorning the greenhouse in summer, should be sown by the end of the month.

Ten-week Stocks, Russian and Prussian Stocks, &c., to bloom early, should be sown at the end of the month in pots, placed in a hot-bed frame, or be sown upon a slight hot-bed, also some other of the tender kinds to prepare them strong for early summer blooming.

Protect the stems of tender plants with furze branches, &c. The stems of tender climbing Roses are screened by such precaution.

Chrysanthemums, the heads of decayed flowers, should be dried, and saved for the seed which probably they possess, and be sown in spring and raised in a hot-bed frame. The old plants must be kept in a cool frame, free from frost, but admit air to prevent them drawing up.





1. *Festuca pinnatifida* 2. *Stephanotis floribunda*

THE
FLORICULTURAL CABINET,

MARCH 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.
TRIPTILION SPINOSUM. SPINY TRIPTILION.

COMPOSITÆ. SYNGENESIA ÆQUALIS.

IN our volume for 1841, at page 114, we remarked upon this very neat and pretty flowering plant, a figure of it was then given in the Botanical Register; in the accompanying observations, Dr. Lindley states, "It is a most beautiful flowering herbaceous plant, a native of Chili, where it is called *Semperviva*, on account of the permanence of its deep azure blossoms." The plant is an herbaceous perennial, increased by division of the roots or by seeds; the latter are sparingly produced and should be sown as soon as gathered, and be placed in a forcing house till the plants are up, and then be potted singly in small pots, in a compost of peat, leaf-mould, and turfy loam, in equal parts, having the pots with a free drainage, as it is very susceptible of injury from wet, and in consequence requires particular attention in winter. Plants can now be obtained at the principal Nurseries, and it certainly deserves to be grown in every greenhouse or in every flower-garden during summer. It can be induced to grow nearly prostrate, or tied up to rise near two feet high. We saw it in profuse bloom, and it was certainly strikingly beautiful.

STEPHANOTUS FLORIBUNDUS. COPIOUS FLOWERED.

ASCLEPIADÆÆ. PENTANDRIA DIGYNIA.

This very beautiful and noble-looking plant, we have several times remarked upon in former volumes, as one of the most graceful and

handsome climbing plants that has been introduced into this country. It is a native of Madagascar, from whence it was imported by Mrs. Lawrence, of Ealing Park, in whose splendid collection of stove-plants we have several times seen it in bloom. The same specimen has been exhibited at the London Horticultural Society's shows in the Chiswick Gardens; it is trained to a circular wire trellis about two feet and a half in diameter and nine feet high, densely covered with a noble rich green foliage and quite loaded with a profusion of its fine clusters of lovely fragrant pearl white flowers.

The plant is of easy culture, grows rapidly, and flowers the greater part of summer, and deserves to be in every collection. It may be procured at a very reasonable rate at the public Nurseries.

ARTICLE II.

REMARKS ON THE PINK.

BY MR. THOMAS IBBETT, FLORIST, BULL FIELDS, WOOLWICH, IN KENT.

ON perusal of the last December Number of your valuable work, the FLORICULTURAL CABINET, I noticed an article on the above subject, written by a person who styled himself "Florista," of a "Midland County;" I should have felt great pleasure if he had signed his name to it. The writer, in the first place, states, that several Articles have already appeared in your CABINET, on the cultivation of the Pink, which I grant is very correct, having myself written three upon that beautiful plant, but never (I beg to observe) without always signing my name and address; to afford any person who might feel disposed an opportunity of correcting or answering any observation which I may have made in those Articles. "Florista" next says, "It is generally understood that northern and southern Florists are at issue on the properties requisite to constitute a first-rate variety of this particular class of Florists' flowers;" here I wish to state I differ very much from the writer, having for many years past had the pleasure of supplying the above-named plant in several northern districts, viz., Yorkshire, Newcastle-on-Tyne, Felton, Percy-main, and various other places in the north, where I have invariably found the opinion to be in perfect accordance with those of the south; but, if I may be allowed to conjecture, perhaps "Florista" alludes to Lancashire, if so, I have no hesitation in

saying that I have never seen a good Pink that was raised in that county, nor can I find any other grower in this neighbourhood that has. Two years ago I received an order from a gentleman in Northumberland, and he acquainted me he had several pairs of Pinks from Lancashire, but they all turned out good for nothing; and it also appears to me, the florists of that county themselves do not agree together, for I have had several orders from them, and from one person in particular for the last three years, which I submit if they had not been approved of, I should not have been applied to for the third time. The writer further says, in his opinion "Norman's Henry is nothing more than a confused mass of petals, void of form, or of any other good quality;" here I again beg totally to disagree with him, it being, in the opinion of myself as well as most principal florists, a very fine flower, and which I shall never be afraid to recommend. "Florista" next alludes to "Garrett's Alpha," which not having grown enough of, I will not venture to speak of its merits or its demerits; next season I shall have more of it, when I shall be better able to judge of its qualities. The writer then attacks "Unworth's Omega," which, I beg to observe, with all its defects, I shall never discard from my collection. In the next place, in regard to the standard which your correspondent quotes, I can only say, I never have, or ever will, presume to have the ambition to lay down what in all respects is to constitute a good flower. In reply to "Florista," who wishes myself or Mr. Norman to favour him with a descriptive list of Pinks, possessing the requisite qualities to reach what he considers the standard of perfection, I will thank him to refer to the number of the FLORICULTURAL CABINET for July last, (page 158,) where he will find I have attempted to offer the best criterion that perhaps can be formed. For my own part I have given over showing, owing to my advanced period of life, but still cultivate nearly every sort worth growing; I grow for showers, and the Pink being so special a favourite with me, the attachment will induce me continually to add to my store.

I shall most gladly, at any future time, contribute any information which I deem conducive to promote the culture of this charming flower, alike neat, beauteous, and fragrant.

ARTICLE III.
ON THE CINERARIA,

BY A SUBSCRIBER IN DEVONSHIRE.

NOT having seen in the two last volumes of your very interesting work, the FLORICULTURAL CABINET, (which I have had the pleasure of being a subscriber for the past two years,) any precise culture of the Cineraria, which I am particularly fond of, and as you solicit communications from floral correspondents, I send you, if you think it worth insertion, the method I have successfully adopted ;—and first, from seed.

I sow the seed, if it ripens pretty early as soon as it is ripe, in a thirty-sized pot, and plunge the pot in a little heat; the seeds will soon be up. I am not particular about the mould I sow in, provided it be fine and light. I sow the seed on the surface, and then stir the mould a little with a sharp pointed stick and smooth it over. As soon as the plants get two pairs of leaves I put them in a sixty-sized pot singly, using loam one-fourth, leaf-mould one-fourth, peat one-fourth, and sand one-fourth, mixing it well together, but it should be sifted fine before mixing. For the first potting I add a little charcoal broken about the size of peas. I then put them in a gentle heat again, plunging the pots in rotted tan, and water as required. As soon as they fill the pots with roots I re-pot them in forty-eights, using the same kind of soil, and re-plunge them in heat as before. As soon as they fill the pots again I re-pot them, using chopped compost instead of sifted, and put them in the greenhouse, where I have a heat of between fifty and sixty degrees, and re-pot as required. I would most strongly recommend the use of Hunt's patent pots for Cinerarias, for being fond of water you can give it more freely, for the roots, if it reaches the bottom of the pots, do not get soaked with water, the drainage preventing an overplus. I water with Guano water twice a week, and I have now very fine strong plants, short, thick of leaves, and they very vigorous, measuring seven and eight inches across, and the same in length, looking remarkably healthy, and now coming into profuse flower, and which I will forward to the Conductor (the flowers) for inspection if I think them worth it.

Treatment of One Year or more Old Plants.

As soon as the plants have done blooming I cut them down close to

the bottom and plunge them in heat without shifting. When I can get any offsets rooted I treat them in all respects similar to seedlings. I have a plant of *C. Ovid*, very strong, which I thought when I obtained it would have died, being so weak and small, but now is a fine strong healthy plant, very thick of bloom, with fine large and thick foliage. If any insects infest the plants, I fumigate with tobacco, lighting it with a candle instead of coals or cinders, for the gas of coals is disagreeable, and coals are more dirty and troublesome.

If these remarks are worth insertion in the *CABINET*, I shall feel highly gratified to aid the culture of flowers in any degree, and will forward to you the method I use with an Arnott stove for heating with less trouble than what I have before read in the *FLORICULTURAL CABINET*, and where I can keep up any desired heat required with perfect success.

[We shall be glad to receive the specimens, as well as the remarks on the stove.—CONDUCTOR.]

ARTICLE IV.

REMARKS ON DIGGING ESTABLISHED SHRUBBERIES,

BY A SUBSCRIBER, OF GRIMSBY.

IN perusing the pages of your *CABINET*, I consulted a gentleman on the advantages or disadvantages of digging amongst shrubs, whose opinion is, that digging amongst shrubs has a tendency rather to do harm than good; so it has if not done by those who thoroughly understand it, such as bankers and ploughmen, but observation and long experience has shown me, that if performed by people who know what they are doing their growth is much accelerated rather than retarded.

In 1841 I took up a great many shrubs in the autumn which had been planted five years but had made no progress at all, but quite stunted in their growth, owing to the hardness of the soil on which they were standing; during that time they had only been once dug amongst, but great pains had always been taken to eradicate all the weeds as they made their appearance. The land was trenched and all the shrubs immediately replanted, and to the great surprise of all who saw them, they made more wood the following summer than they had done for three preceding summers, and are in a most flourishing state up to the present time.

[The shrubs our correspondent refers to required the treatment applied, and after the plan had been properly pursued it would have been surprising if they had not flourished as stated. But this operation does not at all affect the opinion of our former correspondent as given in our January Number.—CONDUCTOR.]

ARTICLE V.

ON THE CULTURE OF THE INTERMEDIATE STOCK,

BY A KENTISH MAN.

HAVING been a reader of the CABINET for some time, and not seeing much said about the culture of Stocks, I take the liberty to send for insertion in the CABINET the following mode of treatment which I grow mine with, and I never fail to have an extraordinary fine bloom.

In the first week of July, I sow my seed in a bed of rich light earth in a situation screened from the mid-day sun, where I allow them to grow until the beginning of September, when I put them into sixty-sized pots separately; the soil that I use is a light sandy loam. In these pots they stand until the middle of October, when I re-pot them into forty-eight sized pots in the same kind of soil as before; I then place them in a cool frame or pit, where they stand all the winter. I take care to give all the air possible, in order to keep the plants dwarf, and I uniformly dress the plants from all dead leaves, as this is a very essential thing in winter, and I never give more water than is really necessary to keep the plants alive, for if kept too wet they are very likely to damp off. About the middle of March they begin to show their blooming spikes. As soon as I can discern the single ones from the double, I separate them, and plant the single for seed in the kitchen-garden, so that I do not have any single ones in my beds or flower borders. Those plants I require for specimens, I re-pot into twenty-fours and place them in the frame, again shading them from the mid-day sun, giving plenty of air and water, as they like to be kept moist at this season. I let them stand in the frame until April, when I plant my bed with those grown in forty-eights, about a foot apart, and in May I have my beds in one sheet of most vigorous scarlet bloom, and which at that early season very greatly adds to the beauty of the lawn; and those, too, growing in twenty-fours, are then in such complete profusion of bloom as amply to repay for the trouble of extra potting.

ARTICLE VI.

DIRECTIONS FOR GROWING LISIANTHUS RUSSELLIANUS,

BY MR. JAMES CUTHILL, FLORIST AND EARLY FORCER, DENMARK HILL, CAMBERWELL, LONDON.

THE best time to sow the seed of this most splendid plant, *Lisianthus Russellianus*, is in March; and as the seed is amongst the smallest of nature's productions, it requires additional care in sowing; therefore to sow it in the usual way, upon a loose soil, the first watering carries the seed along with it, and hence the failure.

Prepare the following compost—half loam, the other made up with leaf, peat, or bog mould, with a little sand, place plenty of drainings in the bottom of a forty-eight or thirty-two pot, fill it with the compost very tight, and on the top place half an inch of sand, damp the sand with water to harden the surface, sow the seed, and sprinkle a very little dry sand on the top. place a propagating glass over the pot, or a piece of glass will do, place your pot into a heat of seventy or eighty degrees with a pan under it, for the future watering, at no time water on the top, the pan ought never to be allowed to get dry. The seedlings will appear in three weeks or more, then about three weeks up, plant them singly in a sixty-size pot in the above compost, with plenty of drainings in the bottom. Place them again in the back of your cucumber pit or frame, after this you cannot give them too much water, over head, and in the pans; and by the autumn, if they have been kept in a good growing heat, they will be fine little bushy plants; top them at every joint; in September shift them into large sixties, merely to keep their roots in a more intermediate state for the winter, after this all top watering must cease, and a pan placed under each pot to receive the watering; and as the winter approaches not a drop of water must be allowed to fall on the plant. The drier the top mould next the leaves and stem get, the more certain of preserving your plant. The best place I have found is a one-light pit, heated with a lining of dung from fifty to sixty degrees, air given front and back, that no damp can fix on the bars and drop on the plants; the second best place is the coldest part of the stove very near the glass; I have also kept them well in the warmest part of the greenhouse; in all cases just water sufficient to keep the plants from flagging. If the winter is dry, water once a fortnight, if damp weather once a month or so; towards the end of February

place them in a cucumber pit or frame, in a heat of from seventy to seventy-five degrees, and when they begin a fresh growth shift them into as large pots as convenient, remembering the larger the pot, the finer your specimen; my largest plant had 600 blossoms on it, and was grown in a number eight sized pot. As the spring advances, it is almost impossible to give them too much heat and moisture, they are very fond of liquid manure.

It is useless to grow a fine plant in any place approaching to dry heat, nor less than seventy to eighty degrees. I have grown them five inches in seven days.

In removing out of the pits, great care must be taken, in not allowing the sun to shine on them for some days, as the change from a damp close heat to a dry house will be too much for them. By the above treatment, they will come into flower about the middle of July, and keep blooming from two to three months, forming a most splendid ornament for drawing-room, conservatory, or greenhouse.

[We have visited Mr. Cuthill's garden in order to see his plants, and they were of the finest description. He deserves encouragement in the sale of his seeds and plants for his attention to promote the successful growth of this beautiful plant, and for his liberality in making it public.--CONDUCTOR.]

ARTICLE VII.

POETICAL ALLEGORY, ILLUSTRATIVE OF THE VARIATIONS OF THE ROSE,

BY A DUBLIN YOUTH.

“My beloved is white and ruddy.”—CANTICLES.

WELL pleased to see the Rose's bloom,
The muse demanded why
Should some the lily white assume
And some the crimson dye.

The cause was sought, but all assays
Were vain to this intent,
Till fancy, wrapt in ancient days,
Pourtrayed the strange event.

Near where the tree of knowldgē grew,
 In Eden's hallowed ground,
 A bed of Roses struck the view,
 And fenced the tree around.

Large sweets diffusing thro' the vale,
 Their snowy bosoms spread
 Their milk white blossoms to the gale,
 Nor yet assum'd the red.

While Adam strung the manly nerve,
 To dress and keep the ground,
 His bride, well pleas'd her lord to serve,
 Would range the garden round.

To cull the fruits and keep the flowers,
 And mark the early bloom,
 Each morn with Roses deck'd her bower,
 Which breath'd a rich perfume.

This favourite spot she oft survey'd
 With an attentive eye,
 And there her constant visit paid,
 To reap a fresh supply.

One morn, a fatal morn it was,
 She paid her usual suit,
 But ah! from hence destruction rose,
 And bitter was the fruit.

Urged on by Satan's base pretence,
 The first and worst of foes,
 She dared to break the feeble fence,
 And trample on the Rose.

Unaw'd she stretch'd the impious hand,
 The alluring sweets to prove,
 Regardless of her lord's command,
 Regardless of his love.

The injur'd Rose beheld the theft,
 And, blushing; chang'd to red,
 The snowy hue its bosom left,
 And wounded hung its head.

Its foliage wept a dewy shower
 Which spoke some sad event,
 Eve turn'd, and saw the bleeding flower,
 And marvell'd what it meant.

Awhile she stood and gazed thereon,
 Till trembling she withdrew,
 Unconscious that she trampled on
 The fairest flower that grew.

Here fancy paus'd, and truth began
 The wonder to disclose,
 A nobler form than flower or man,
 Was crush'd beneath the Rose.

That only trodden to the ground,
 Dishonour'd blushes red,
 'Twas "Sharon's Rose" that felt the wound,
 'Twas "Sharon's Rose" that bled.

The atrocious deed no sooner done,
 Than Christ the victim stood;
 In spotless white his godhead shone,
 His manhood bath'd in blood.

And hence the Roses now unite
 To exhibit Him that bled,
 This wears the justifying white,
 And that the atoning red.

The muse upon these graces gazed,
 And brighter beauties eyed,
 Till lost in wonder, love, and praise,
 She kiss'd the Rose and died.

May'st thou, my soul, these blessings share
 At the decisive hour,
 And ever in my bosom wear
 This sweet, this lovely flower.

ARTICLE VIII.

REMARKS ON GREENHOUSES; &c.

BY AN AMATEUR.

THE number of greenhouses that are everywhere seen around our large towns, in what are termed suburban residences, indicates the increased taste for plants; and every person who has attended the exhibition of flowers of late years, must be impressed with the truth of this observation. But with all this anxiety, much remains to be done before anything like general satisfaction can be expected. Many greenhouses are not only badly constructed, but the plants themselves injudiciously chosen; and this is the more to be regretted, as both new and old varieties may be so easily purchased. It is my intention, as opportunities occur, to offer various suggestions upon these points. At this time particularly, with reference to the present season, nothing tends more to the injury of the ordinary plants in private greenhouses than too much care; it induces them to grow and become weak before the flowering season arrives, when disappointment is the consequence. Many plants should have matured their growth during the summer and autumn months; and it is very unnatural to induce them to grow or flower during cold, damp days. What they require is plenty of air, when the weather is fine, and when wet and cloudy a little fire heat to dispel the damp. If the frost, however, should be intense, it will be, of course, necessary to have stronger fires; but the thermometer should not rise higher than 40 degrees. Water should be sparingly given, and of the same temperature as the house. I have annexed a list of plants for which this treatment is indispensable.

Acacia alata, armata, juniperina, diffusa, saligna, striata, laxifolia, affinis, vestita, suaveolens, verticillata, rutefolia, and pulchella. Calistachys lanceolata, and ovata. Brachysema latifolia. Chorizema Henchmannii. Virgilia aurea. Dillwynia juniperina. Eutaxia myrtifolia, and pungens. Pultenæa daphnoides, and stricta. Corræa

speciosa, *pulchella*, and *virens*. *Pimelea diosmæfolia*, and *decussata*. *Loddigesia oxalidifolia*. *Templetonia glauca*. *Hovea celsi*, and *elliptica*. *Goodia pubescens*, and *latifolia*. *Grevillea acanthifolia*, *juniperina*, *rosmarinifolia*, and *sericea*. *Bauera rubicefolia*. *Hibbertia Cunninghamii*. *Kennedia monophylla*, *rubicunda*, and *Comptoniana*. *Plumbago capensis*. *Spigelia Marylandica*. *Serissa fœtida*. *Gnidia simplex*. *Lachnæa purpurea*. *Polygala myrtifolia*, *grandiflora*, *cordifolia*, and *speciosa*. *Maurittia heisteria*. *Epacris grandiflora*, *purpurescens*, *pulchella*, *impressa*, *campanulata*, *variabilis*, and *nivalis*. *Stenantha pinifolia*. *Azalca indica phœnicea*, *albida*. *Diosma oppositifolia*, *capitata*, *ciliata*, and *ambigua*. *Boronia alata*, *serulata*, and *crenulata*. *Burtonia conferta*. *Sutherlandia frutescens*, *Swainsonia coronillifolia*. *Sottia dentata*.

But where sufficient convenience is possessed, some greenhouses need not be destitute of flowers, even at this ungenial season of the year. Geraniums may be grown during the summer months for the express purpose—their early buds should then be removed, which makes them strong; and, if placed near the glass, will be in flower at the present time, as well as different species of *Salvias*, *Primulas*, *Ericas*, *Verbenas*, *Camellias*, and *Roses*. These, with others equally adapted, are desirable, when bulbs are not sufficiently advanced, and which, if prematurely forced, would bloom imperfectly.

ARTICLE IX.

REMARKS ON PEAT AND LOAMY SOILS.

IT is now the opinion of some of our finest florists that a really sound loam, of velvety softness, composed chiefly of extremely fine dun-coloured silex, alumine, pale oxide of iron, and about six per cent. of chalk, all blended in such proportions by nature as perfectly to balance each other, is the staple earth of floriculture; we may add that a handful of such a loam, if taken up and pressed strongly together, will break and separate entirely on falling to the ground; any strong-rooting vegetable, stove-plant, pineapple, melon, or flower shrub, that does not require moor-soil, will flourish in it and be in health; but that if the loam be defective, it is far more safe to employ two or three-year-old leaf-soil; with a good quantity of pit-sand, and occasionally some heath-mould, making up by pressure of the hand what the soil

wants in solidity. In this soil all the *Gloxinias*, the *Pelargonias*, *Calceolarias*, *Fuchsias*, and many other plants, will grow freely with deep verdure of foliage; but it must never be permitted to become quite heart-dry and parched. I may add, also, that the *Thunbergias* will prosper in it, though not to such an extent of broad, deep foliage, as in true peat. The mention of this word demands immediate explanation. Peat is now in the mouth of every one, as "bog-earth" was thirty years ago, and it occurs in all the pages of floriculture; but in no one instance is it correctly used, nor do the parties employing the term intend what they express. Peat is a short, easy word, and being used conventionally, passes for the heath-soil, or moor-earth, of Bagshot Heath, Sydenham Common, or Hampstead Heath,—the top spit, in a word, of a heath-common, which consists almost entirely of white, silicious sand, say 90 per cent., with some black vegetable remains of heath or short grass, and decayed twigs; the Prussian tests (ferro-cyanurets of potassa and soda) detect in it also a trace of iron. But peat, true peat of the turbarry or peat-bog, is a very compound substance, more approaching to a sodden marl than anything else. It was thus described by Davy:—"The earthy matter of peats is uniformly analogous to that of the stratum on which they repose; the plants which have formed them must have derived the earths that they contain from this stratum. Thus, in Wiltshire and Berkshire, where the stratum below the peat is chalk, calcareous earth abounds in the ashes, and very little alumina and silica. They likewise contain much oxide of iron and gypsum, both of which may be derived from the decomposition of the pyrites (sulphur and iron) so abundant in chalk. Different specimens of peat that I have burnt, from the granite and schistose soils of different parts of these islands, have always given ashes principally silicious and aluminous," &c.

A specimen of very old Berkshire peat, exposed twenty years to the air, was of close texture and grey-black; not a particle of sand could be seen in it. When broken and comminuted, *Thunbergia alata* throve in it with a luxuriance that nothing could surpass. But peats are not to be trusted; therefore we must apply to leaf-mould and heathsoil, to bind which a tenth or less portion of finely-powdered pipe-clay (which consists of pure alumina and some *silex* extremely fine, if we mistake not) might be blended with safety and effect.

Of leaf-mould, one of the best adjuncts to the potting department,

a good deal ought to be said and understood. Were it possible, we would always reject beech-leaves and laurel; the former, because they contain much chalk, and the latter because they decompose unkindly. But when we talk of leaf-mould, we infer the gradual decay of a wood pile, where all the twigs, amputated boughs, and clearings of the park and shrubbery, are collected. Thus we obtain the decomposed bark as well as leaves, and in the course of three or four years procure ample store of vegetable earth, in three stages of laboration. The first, and oldest, an unctuous substance, like old peat, rather brown, the very representative of humus, just fit to go into the earth. The second, screenings of the mass, abounding with much of the same soil, with a considerable portion of half-reduced twigs and stalks. This should stand the seasons of another year. The third, a quantity of the latter substances, and but little reduced vegetable earth. Leaves alone do not produce, by decay, a mould so valuable, nor yet so tractable, as does the wood-pile; therefore we recommend the latter. The quite reduced three-year-old mass incorporated with two-thirds of silver sand, forms an excellent substitute for heath-mould.

ARTICLE X.

ON THE BLUE-FLOWERED HYDRANGEA.

BY MR. R. SHERWOOD, OF DARLEY COTTAGE, IN THE POTTERIES.

NOTICING the different matters mentioned in the CABINET that have been employed, some with varying success and others failing entirely, to cause the *Hydrangea* to have blue flowers, I forward the method I adopted most successfully. The fine effects of charcoal as applied to pot plants under the management of Mr. Barnes, gardener to Lady Rolle, at Bicton, in Devonshire, coming under my notice there early last spring, I was advised to try its effects on the *Hydrangea*, with a view to increase the size of its floral heads. I did so in the following manner:—My compost consisted of one-half chopped turfy loam, and the other equal portions of fibrous peat soil, and small bits of charcoal. In potting I had a free drainage made of the roughest pieces of turfy peat and charcoal about four inches deep; having shook off nearly all the old soil, I repotted, in a careful manner, with the above compost. The plants grew very vigorous, producing very superior heads of bloom; but what proved the most gratifying was, the blossoms were of a beautiful vivid blue.

PART II.

LIST OF NEW AND RARE PLANTS.

ANIA BICORNIS. Two-horned. (Bot. Reg. 8.) Orchidaceæ, Gynandria Monandria. Sent from Ceylon to the Rev. J. Clowes, of Broughton Hall, near Manchester. It is of the *Bletia* type. The flowers are produced in a scape of about eighteen or twenty in each. Labellum yellow, with a few red spots; sepals and petals green. Each blossom is about an inch across.

CEREUS EXTENSUS. Long-stemmed. (Bot. Mag. 4066.) Cactææ. Icosandria Monogynia. From Trinidad to Kew Gardens, where it has long been grown, but never bloomed till 1843. It is a creeping species. The flowers are of the size of the night-blooming *Cereus*, from eight to ten inches across. Tube green, scales greenish-yellow, tipped and edged with red, petals rosy-coloured.

CRINUM VARIABLE, VAR. ROSEUM. Rose-coloured Crinum. (Bot. Reg. 9.) Amaryllidaceæ, Hexandria Monogynia; Synonyms *Amaryllis variabilis*, *Amaryllis revoluta*. The *C. variable* is the hardiest known species out of doors; it preserves its leaves in winter longer than *C. capense*, and shoots earlier in the spring. The flowers are inside white, tinged towards the mouth with rose, outside a beautiful rose-colour. Each flower is about five inches long, and as much across the mouth. It bloomed in April, 1843, in the collection of J. H. Slater, Esq., of Newick Park, in Sussex.

DINEMA POLYBULBON. Many-bulbed. (Bot. Mag. 4067.) Orchidaceæ, Gynandria Monandria; Synonym *Epidendrum polybulbon*. A native of Jamaica, Mexico, &c. It is a diminutive plant, rising about three inches high. Each flower is about an inch across, labellum white, sepals and petals narrow, greenish-yellow. Bloomed in the Glasgow Botanic Garden.

DILLWYNIA CLAVATA. Club-shaped. (Pax. Mag. Bot.) Leguminosæ, Decandria Monogynia. A native of the Swan River colony. It is a pretty greenhouse evergreen shrub. The flowers are produced in clustered spikes towards the ends of the branches. Each blossom is about half an inch across; the vexillum of a rich deep yellow, streaked with red; the keel and wings of a lively crimson. Its beautiful pea-formed flowers produce a pretty effect. It well merits a place in every greenhouse, and may be obtained at a reasonable price in the public nurseries. It begins to bloom in April and continues for several months.

ERICA SHANNONIANA. Lady Shannon's Heath. (Bot. Mag. 4069.) Ericaceæ, Octandria Monogynia. A very neat flowering species. The flowers are produced in umbels of ten or twelve in each. Each blossom is tubulous, a little more than an inch long, white tinged with red, greenish tinge just below the limb or mouth of the flower. It deserves a place in every collection.

GENISTA VIRGATA. Twiggy-Broom. (Bot. Reg. 11.) Leguminosæ, Monadelphica Decandria; Synonym *Spartium virgatum*. A hardy evergreen shrub, growing about four feet high, delighting in a dry situation. It grows very freely, and blooms most profusely from May to July. The flowers are borne in large spikes, very numerous, of a bright yellow. It deserves a place in every shrubbery. Plants may be had cheap at the large public nurseries.

IPONEA CRASSIPES. Thick flower-stalked. (Bot. Mag. 4068.) Convolvulaceæ, Pentandria Monogynia. From Southern Africa. It has bloomed in the garden of the Earl of Derby, Knowsley Park, Lancashire. A neat climbing plant. Each flower is two inches across the mouth, of a pretty rosy-purple, becoming darker downwards into the tube. An interesting and beautiful species.

LISSOCHILUS ROSEUS. Rose-coloured. (Bot. Reg. 12.) Orchidaceæ, Gynandria Monandria. A native of Sierra Leone. It is one of the terrestrial Orchideæ, and the flowers are strikingly beautiful; they are numerous produced in a dense long racemous spike. Each blossom is an inch and a half across; the sepals are of a dark chocolate colour; the petals of a bright rose; lip rosy-crim-

son, with a yellow stain up the middle. The contrast of the striking colours is beautiful.

LYCASTE SKINNERI. Mr. Skinner's. (Pax. Mag. Bot.) Orchidaceæ, Gynandria Monandria. *Lycaste* is a new genus separated from *Maxillaria*. The present species has bloomed in the fine collection of the Rev. John Clowes, of Broughton Hall. Each blossom is about six inches across; sepals pure white, with a faint tinge of crimson at the base; the petals of a more rosy hue, having the tips covered with spots and streaks of brilliant carmine. The column is pure white at the point, mottled with spots of crimson at the base. It is a splendid species, well meriting a place in every collection.

SPIREA REEVESIANA. Mr. Reeves' *Spirea*. (Bot. Reg. 10.) Rosaceæ, Icosandria Polygynia; Synonym, *S. corymbosa*. It is a handsome hardy sub-evergreen, a native of China, growing about four feet high, and forming a pretty spreading bush. It blooms very freely in the early part of summer. The flowers are produced in terminal heads of near twenty in each, white, each blossom being near half an inch across. It is a very pretty addition for the shrubbery. It can be procured very cheap, and readily increases by cuttings.

STIGMAPHYLLOM JATROPHÆFOLIUM. *Jatropha*-leaved. (Bot. Reg. 7.) Malpighiaceæ, Decandria Trigynia. A native of Brazil, which will probably do in this country in a warm greenhouse; it has been received in the neighbourhood of Liverpool, and there flourished in a moist stove. It is a very pretty climbing plant, the leaves being beautifully cut at the edges, and of a bright green. The flowers are produced in heads of ten or more in each. A separate flower is near an inch across, yellow. The flower-stems proceed from the axils of the leaves.

TETRANEMA MEXICANUM. Mexican *Tetranema*. (Bot. Mag. 4070.) Scrophularinæ, Didynamia Angiospermia; Synonym *Pentstemon Mexicanus*. A native of Mexico, and appears to flourish well when grown either in the greenhouse or stove. The plant, when without flowering stems, has somewhat the appearance of a *Gloxinia*. The flower-stems rise about six or eight inches high; the flowers are produced in capitate umbels, of twenty or more in each, of a pretty rosy-purple, mottled with white. Each flower is about three-quarters of an inch long in the tubular portion, and half an inch across the mouth. It is an interesting and pretty plant; and what renders it additionally so is, that it blooms during winter, viz. from November to May, and is very ornamental through the entire period. It is in the collection of the Royal Botanic Gardens at Kew, and most probably in the principal nursery establishments.

PLANTS NOTICED IN THE BOTANICAL REGISTER NOT FIGURED.

ANSELLIA AFRICANA. When Mr. Ansell, who went with the Niger Expedition, was ill at Fernando Po, he discovered this new genus growing on the stems of the Oil Palm. It is an Orchideous Epiphyte, bearing a terminal panicle of flowers as large as those of *Vanda Roxburghii*, with dark spots on a pale ground. A living specimen has not yet been received in this country.

MAXILLARIA MELEAGRIS. A stemless species, of little beauty. The flowers are of a yellowish ground, spotted with purple. It is in the collections of Mr. Brocklehurst and Messrs. Loddiges'.

TROCHETIA GRANDIFLORA. A handsome stove shrub, a native of the Mauritius, and is in the collection at Sion House Gardens. It has large oblong leaves, dark green, but the underside is covered with brown hairy stars. The flowers are large, pendulous, white, and are produced in threes.

ONCIDIUM OBLONGATUM. In Messrs. Loddiges's collection. The petals are flat, not wavy, of a clear yellow, with a few brown marks. It is a very handsome species.

MAXILLARIA CONCAVA. Very similar in appearance to *M. bractescens*, the flowers being a little smaller. It is in the collection of the London Horticultural Society.

MAXILLARIA CORRUGATA. This new species, discovered between Bogota and Maracaibo, is in the collection of George Barker, Esq. The flowers are of a pale brownish-purple, the lip a yellow ground, with purple zigzag veiny marks.

BRASSIA. There are now fourteen fine distinct species of this noble Orchidaceous plant, viz.:—

- B. lanceana.* Flowers bright yellow, spotted with brown, fragrant.
- B. angusta.* Flowers dull yellow, with brown spots at the base of the sepals.
- B. macrostachya.* Flowers clear golden yellow, spotted slightly with brown, much darker than the lip. A splendid species.
- B. caudata.* Nearly allied to the last-noticed species; the flowers are somewhat smaller, greener, and much more mottled with deep brown.
- B. bidens,* nearly allied to *B. caudata*; the lip has a yellow ground, and spotted with brown.
- B. cochleata.* No colour of flowers given.
- B. verrucosa.* Flowers pale green, the lip being white, marked with green warts.
- B. guttata.* Flowers greenish-yellow, spotted with green. A fine species.
- B. brachiata.* Flowers pale brown, with very distinct brown spots.
- B. aristata.* No colour of flowers given.
- B. peruviana.* Flowers yellowish-green, spotted with purple.
- B. maculata.* Flowers olive-brown, blotched with purple; the lip cream-colour, with purple spots.
- B. Clowesii.* Flowers having the sepals of a yellow ground, blotched with deep chocolate brown; lip violet at the base, with a white tip. A fine species.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

A LIST OF AZALEAS AND RHODODENDRONS.—I am having what some term an American garden formed, and noticing that in the two last volumes of the CABINET you have given an interesting descriptive list of Rhododendrons, Azaleas, &c., as exhibited at the Show, in King's-road, Chelsea, I should be much obliged by a more extended list to aid me in selecting an extensive assortment of all the finest kinds to furnish my garden to advantage.

Westmoreland, February 3, 1844.

JUVENIS.

[The Rhododendrons will do in our next Number. The following list contains nearly all the hardy Azaleas. The names of most describe the colour, or floral character, of the kinds, and our correspondent will readily make a desirable selection of these very lovely sweet flowers.—CONDUCTOR.]

AMERICAN PLANTS.

AZALEAS.

- Adelaide.
- *Æstivalis capriflora.*
- *concinna.*
- *interesta.*
- *ornata.*
- *rubro crocea.*
- alba flavescens rosacea.*
- Alexandria.
- Amabile.
- amæna.*
- ardens.*
- aurantia.*
- *major.*

AZALEAS.

- aurea.*
- *crispa.*
- aurantiaca.*
- *coccinea.*
- *superba.*
- autumnalis.*
- Backii.*
- Badia.*
- Belle-rosetta.*
- bicolor.*
- *grandiflora.*
- calendulacea coccinea.*
- *crocea.*

AZALEAS *continued.*

calendulacea elegans.
 — eximea.
 — flammea.
 candida.
 candidissima.
 Cliveana.
 carnea delicatissima.
 — elegans.
 Coburgii.
 coccinea.
 — major.
 cœli rosea.
 colorata.
 — macrocephala.
 comitissa flandria.
 concinna.
 Cordor.
 coronata.
 coronaria.
 Creei.
 crocea distincta.
 — splendida.
 cruenta.
 cuprea splendens.
 — eximea nova.
 decushortorum.
 dianthaflora.
 double blush.
 Duchess de Parma.
 dulcedo.
 early white.
 electa.
 elegans Morteri.
 — tardiva:
 elegantissima.
 Ferdinando.
 fissa.
 flora provincialis.
 genis Morteri.
 glauca.
 — plena.
 globosa compacta.
 gloriosa.
 gloria mundi.
 — patria
 — triumphans.
 — universalis.
 grandissima.
 Guillemus primus.
 honesta.
 ignescens.
 incana.
 imperialis maxima.
 — superba.
 incarnata crispa.
 — superba.
 incundo.
 lateritia stellata.
 — striata.
 l'imperatrice.

AZALEAS *continued.*

magnificens.
 mirabilis.
 — grandiflora.
 monstrosa fascicularis.
 — variabilis.
 Morteri.
 Murryana.
 nudiflora.
 — crispa.
 — læta.
 — nosegay.
 — rubra.
 — Tayler's red.
 ne-plus-ultra.
 nilens.
 nymphaea.
 optima.
 ornata-rosea.
 papilionacea.
 penicellata stellata.
 perfecta.
 pictura subtilissima.
 plumosa.
 pontica.
 — alba.
 — — Thomson's.
 — compacta.
 — globosa.
 — grandiflora.
 — flavicoma.
 — multiflora pallida.
 — macrantha.
 — mirabilis.
 — princeps.
 — salmonea.
 — tricolor.
 — versicolor.
 — Zebrina.
 — Watererii.
 — sulphurea.
 — — ornata.
 — — dissecta.
 — — grandiflora.
 — — grandissima.
 — — pallida.
 præstantissima.
 prænitans.
 Princess Marion.
 pulcherrima.
 punicea.
 purpurea.
 — grandiflora.
 rava.
 rosa-sinensis.
 robusta.
 rubescens.
 — grandiflora.
 — speciosa.
 rubra-marginata.
 rubracata.

AZALEAS *continued.*

salicifolia.
saltatoria.
scabra.
seraphina.
specula.
spectabilis.
speciosa-aurea.
— conspicua.
— atro-sanguinea.
— hæmantha.
— pulchella.
strophantha.

AZALEAS *continued.*

sinensis.
triumphans.
translucida.
versicolor.
— grandiflora.
viola odorata.
Victoria modesta.
viscocephala.
vittata.
— conspicua.
viscosa alba.
— conspicua.

THE LANCASHIRE TULIP GROWERS.—The Northern Florists, anxious to ascertain if they really have any flowers worth growing or not, will be glad to know on what terms it will be agreeable to you to meet them in "The Lists" at York.

They would wish you to provide one judge and themselves another, and an umpire to be chosen by these two.

From the manner in which their Tulips are spoken of in the periodicals of the day, they are apprehensive "there is something rotten in the state of Denmark," and they would like to right the matter if it can be done.

Any communication through the present channel, or addressed post-paid to Mr. Amor Minor, Post-office, Gateshead, will have immediate attention.

Northern Florists' Arbour, February 14, 1844.

AMOR MINOR.

ON VERBENA SEED.—Last autumn I saved a quantity of Verbena seed collected from a bed containing twenty of the best kinds. When and how am I to sow and afterwards treat the plants; also, will they bloom the ensuing summer?

Kingston.

EMILY.

[Sow the seeds in pots in March on a fine and smooth surface of good loam, and after pressing the seeds to the soil, just cover them with some finely sifted, and place the pots in a cucumber frame at work. When the plants are large enough, transplant them, several into a small pot. After they have struck root, again remove them to where more air can be given, and so to inure them to the climate, that by the middle of May they may be fit to plant in the open garden, where they will bloom by the end of June or early in July, unless some casualty prevent.—CONDUCTOR.]

ON ARISTOLOCHIA, CYPRIPEDIUMS, &c.—Being a subscriber to your FLORICULTURAL CABINET from its commencement, I take the liberty of asking if you can inform me where I may procure seeds of the Aristolochia clematidis, Cypripedium calceolus, Pyrola rotundifolia, and Cascata of varieties. As these are rare plants, or by no means frequent, and as I feel greatly interested in British botany, it would confer a favour if you could occasionally insert articles or extracts on rare and curious British plants, and also figures of them, as you did in the first volume; and this, I think, the greater part of your readers would, as well as myself, be glad to see commenced. As the study of botany is at the present day the delight of all classes, and being of so innocent and pleasing a character, it cannot be too greatly extended, and the large circulation of the CABINET is capable of doing this with advantage at the same time to itself. Perhaps you may be able to inform me of a periodical work entirely devoted to botany, at about the same price of the CABINET, with coloured engravings.

[Baxter's coloured copy of British Botany, published in monthly numbers, would be found useful. Seeds of the kinds named cannot readily be obtained. We think it very likely plants may be had of Loddiges's, of Hackney, or Young's, of Epsom, in whose catalogues they have been inserted.—CONDUCTOR.]

ON A BOX IN WHICH TO SOW *RANUNCULUS* SEEDS.—Mr. Lightbody has given what appears to me some very valuable instructions on the culture of the *Ranunculus*: he has gone into detail very minutely on raising that beautiful flower from seed. Will any of your numerous correspondents be kind enough to inform me, in an early number of the CABINET, what the dimensions of a box should be (depth in particular) to sow, say a 5s.-packet of seed in? I know Mr. Lightbody would willingly inform me if I was to write to him, but as that gentleman has devoted so much of his valuable time in enlightening the floricultural portion of the public upon the subject, I think it would be taxing his good nature too closely to trouble him further upon the question at present.

Crayford.

THOMAS MIDDLETON.

ON THE *MAGNOLIA*.—I have two *Magnolias* which have been in my possession fourteen years, but which have not bloomed. Four years back I removed them in order to induce them to flower; but although they grow well since, there is no signs of my object being realized. If some reader of the CABINET would favour me with particulars to adopt so as to obtain a bloom, I should esteem it a great kindness.

A BEGINNER.

[The species of *Magnolia* and the site the plant occupies, &c., should be given by our correspondent. The answer about cucumbers, &c., is inserted on the wrapper of the present number.—CONDUCTOR.]

ON *PETUNIAS* AND *LILIUM LANCIFOLIUM*.—An old subscriber would be much obliged to the Conductor if he would be kind enough to inform her, through the medium of the FLORICULTURAL CABINET, where, and at what price, she can procure plants of the *Petunias* figured in the June Number of the fifth, and in the July Number of the sixth volume, and also of the *Lilium lancifolium* figured in the February Number of the seventh volume.

February 15, 1844.

[Some of those figured we believe are now lost; others of them we, as well as other nurserymen, possess. Since that time numerous intermediate hybrids have been raised very similar in character of flowers. They average 1s. each. We purpose, when the plants we have bloom, to prepare a descriptive list of forty of the best kinds during the ensuing season. The *Lilium lancifolium album* is 3s. to 3s. 6d. per flowering bulb, *L. lancifolium punctatum* 5s. to 7s. 6d.

CONDUCTOR.]

ON *GUANO MANURE*.—In this month's Number of the FLORICULTURAL CABINET, page 44, there is an article which speaks highly of Guano as a manure for grass land. I beg to observe that I tried it last year on three several acres of grass lying apart from each other, applying on the 25th of April to one of them 1 cwt., to the second 1 cwt. and a half, and to the third 2 cwt. The ground was damp at the time and it rained the two following days. Not the slightest visible effect was produced. No manure of any description was put on the land immediately adjoining the patches to which the Guano had been applied; but not an individual, who was asked to point out the spots, could say which part had Guano and which not. Two of my neighbours tried some of the same lot, one with wheat, the other with potatoes, and both found their crops benefited. I made some experiments with it also in the kitchen garden. Strawberries were killed by it, and carrots, parsnips, lettuces, and onions, more or less injured. Cabbages appeared slightly benefited. Will some conversant with the use of the Guano oblige me with early information as to the best mode of applying this far-famed manure, by which I may hope to reap the same advantage from the use of it in future that others are stated to have done.

Tonbridge Wells.

AN ORIGINAL SUBSCRIBER.

REMARKS.

ON PLANTS AFFECTED WITH MILDEW.—In a former number of the *CABINET* I observed a correspondent stated that during several previous months a quantity of his Pelargoniums and other plants had suffered from mildew, although the house was not a cold or damp one. I was similarly circumstanced, and being advised to water them at the roots once a week with nitre dissolved in water, in the proportion of a quarter of an ounce to a quart of water, I did so through the remainder of last autumn, and now have not a vestige of the mildew.

Sidmouth.

LUCY.

WINTER BLOOMING OF CARNATIONS.—I had a quantity of the old Clove Carnation, French Piccottee, &c., grown in pots last year. Early in October I removed them into a greenhouse, giving them proper attention as to watering, tying up, &c., and by the end of December I had a splendid bloom of these fragrant beauties, and which are still in fine condition.

Near Bath, February 8, 1844.

MARY HAMILTON.

CHINA.—Advices have been received from Mr. Fortune, engaged in collecting seeds for the Horticultural Society in China, dated Chusan, November 12. He describes the whole coast of China to the northward as consisting of bare rugged rock, barren sand, and burnt gravelly clay, but with beautiful plants here and there. He had met with very bad weather in his passage to Amoy, but had had an opportunity of exploring the islands of Koo-long-soo and Amoy. On the voyage thence to Chusan, the vessel encountered heavy gales in the Formosan Channel, and was twice driven back, once to Chinchin, and once to Chamoo; this, however, gave him the opportunity of landing at those places, and exploring the country for several miles inland. On no occasion had he met with serious obstacles to penetrating the country, but, on the contrary, found the natives particularly civil, much more so than on the coast further south and at Canton. Mr. Fortune had fallen in with hills covered with Azaleas, and with several other good things, seeds of which, in very small quantities, were enclosed in his letters. In particular, he had met with a very beautiful Buddlea, with rich purple flowers, arranged in clusters like a Lilac; and a very fine Campanulaceous plant, with flowers as large as those of *Lisianthus Russellianus*. What he had seen of China gave him great hopes of fully realizing the anticipations of the Society. He was about to proceed to Shang-Hai and Ning-po.

ON SALTPETRE AS A MANURE.—I have applied Saltpetre, Guano, and Nitrate of Soda during the last season on three equal portions of my land, viz., a quarter of an acre, and sowed with wheat. The portion on which Saltpetre was applied produced one quarter of corn more than either of the other, Guano being the least. Of Guano I applied six stones; of Saltpetre and Nitrate of Soda three stones each.

AGRICOLA.

ON THE APPLICATION OF CHARCOAL IN THE SOIL IN WHICH PELARGONIUMS ARE GROWING.—In the early part of last spring I saw an article in the *CABINET* recommending bits of Charcoal to be mixed in compost used in pot culture of plants. Having a quantity of young Pelargoniums to pot I adopted the plan by sprinkling about one-eighth with the rich turfy loam and vegetable soil, and, having a free drainage, nothing can exceed the deep green beauty and vigour of the plants at this time.

AN AMATEUR.

Mile-End.

ON PRESERVING THE VITALITY OF SEEDS.—The Editor of the *Gardener's Chronical*, in the leading article, observes, that the gardener of Colonel Reid, Governor of Bermuda, had adopted the following most successful method of preserving the vitality of Seeds at that place, where, in consequence of the sudden and violent changes, there exists the greatest difficulty in retaining their germinating power. Early in May last the gardener, recollecting the evenness of

the temperature which existed at the bottom of a cistern of water that was five feet below the surface of the ground, he carefully sealed up a bottle of Onion seed which he had just received from Madeira, and after having it securely cased in brown paper, the package was then deposited at the bottom of the cemented cistern. On the first of November the seeds in this bottle were sown, as well as the contents of other bottles which had been kept in the usual sealed way in an airy and cool warehouse during summer. Of the seeds of the latter bottles from about one-tenth to one-fifth came up of some, but of one not a single plant sprung up. The seeds preserved in the bottle immersed in water came up admirably, and as quick as new seed.

[Some of our correspondents have, on several occasions, referred to the difficulty of preserving seeds when obtained in remote parts of the world from this country, but any facility of immersion, &c., being at hand, either before commencing a voyage, or during the passage, in ship's tanks, &c., it is highly probable that seeds having a more uniform temperature may be brought here with perfect safety.—CONDUCTOR.]

ON EDGING FOR A WALK.—For several years I have had the following mentioned kinds of plants for edging to walks, and they combine neatness with beauty; they have been admired by all who have seen them:—*Erica herbacea*, and its varieties, grow about four inches high, and are easily kept compact; mine are six inches in breadth, and they commence blooming about the middle of January, in warm situations, and continue one mass of bloom for several months. Flowering, too, at so dreary a season in winter, it is a very interesting object to have in view from the dwelling, or frequented walk. *Erica cinerea*, with its several varieties, also makes a very interesting and pretty edging. When out of bloom it has a neat and pleasing appearance: they bloom from July to the end of the summer. *Menziezia polifolia alba* blooms dwarf, when four to six inches high, and its beautiful pearl-white flowers produce a very pretty effect; it begins to bloom in June, and continues to the end of the season. There are others of the *Menziezias*, as purple, rosy-red, &c.; also several others of the *Ericas* which are also suitable for the purpose, but the three named kinds are what I possess, and have so adopted. I have sandy peat to grow them in. CLERICUS.

A Midland County.

ON OBTAINING BOTTOM HEAT BY THE TANK SYSTEM.—I have read about, and seen a good deal, of the new mode of obtaining bottom heat by the tank system; and although it may be all that is desired where the plants are confined in pots, and plunged in some material, &c.; also the soil in which they grow is not made wet by the damp arising from the water in the tank, but where the roots of the plants, as is usually the case with melons, cucumbers, &c., have to grow in the soil into which the moisture from the tank is allowed to pass, I am confident it is injurious. I have found that the lower portion of the soil is so saturated by it as to become soddened like soft clay, and this increases upwards in proportion to the period the heating of it is continued, and the plants growing so circumstanced become sickly. The gaseous products of fermenting matter, as used in the old mode of obtaining bottom heat, is a very different thing in its operations and nature, as used for bottom heat, and very much superior to the heated water. And as to the use of the tank system to heat the space of a greenhouse, it is very unsuitable for such a purpose, more especially so as heat is only required in the dull cold months of late in autumn and in winter. For a plant stove, it will serve well by proper management.

Essex, February 14, 1844.

A PRACTICAL MAN.

LAWS OF GARDENS.—The few following remarks may prove beneficial to some of your numerous readers, and perchance save them many useless and unpleasant differences either as landlords or outgoing and incoming tenants. Annual roots and flowers planted in a garden may be removed by any tenant, and so may young fruit-trees and shrubs in the garden or nursery of a person to whom the same has been let for the purpose of sale or trade—2 East's Reports, page 88. But unless a garden or orchard, or other land, has been so let as nursery-ground,

no tenant can, as between him and the landlord, remove any flower, root, tree, or shrub, not strictly an annual, or not usually taken up at one season of the year and replanted at another; and if without authority he should remove the same, he would be liable to an action for the waste. And if a tenant of any description has made strawberry-beds, he cannot, either before or at the expiration of his tenancy, and whilst they are likely to continue productive, remove or destroy the same, without being liable to an action for injury to the landlord or succeeding tenant—1 Campbell's Reports, p. 227.—A SUBSCRIBER.

ON *BIGNONIA VENUSTA*.—I observed in an early Number in 1841, the Conductor recommends as a hot-house climber the beautiful flowering *Bignonia venusta*, I immediately procured a strong plant, planted it out on the corner of a bark pit in a vinery, enclosing the soil for its roots in a wood case, with numerous holes bored in the two sides next the bark for the roots to push through into the bark. During the last two summers the plant has been trained horizontally from pillar to pillar, which are uprights under each rafter at the back of the pit-wall, and whilst the plant has grown vigorously, the horizontal position I find has most materially promoted the production of flowers, and a profuse bloom has been afforded from June to October. It is one of the loveliest flowering climbers; its beautiful buff-coloured, long trumpet-formed flowers, in large and numerous clusters, render it an object of admiration, and worth a place in every vinery or plant stove.

CLERICUS.

FLORICULTURAL CALENDAR FOR MARCH.

AMARYLLISES, and other liliaceous bulbous plants which have been kept dormant, may now be re-potted, and put into an increased temperature.

ANNUALS, HARDY, such as *Clarkias*, *Nemophilas*, *Larkspurs*, &c.—If the soil be moderately dry, some of the most hardy kinds, to bloom early in the summer, may be sown in warm parts of the country, or situations well protected, but in cold places, not until the end of the month; for if the seeds of many sorts begin to vegetate, and frost operate upon them, they are often destroyed. The best method of sowing the small seeds in patches is to have a quantity of finely sifted soil; spread a portion where desired; after scattering the seeds, sprinkle a little more soil over them, and then press it closely upon the seeds, which will assist them in vegetating properly.

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

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

CAMPANULA PYRAMIDALIS—to have fine pot specimens should be potted, if not before done, and encouraged to grow.

CARNATIONS—at the end of the month, the last year's layers kept in pots or beds during the winter should be planted off into large pots 12 inches wide at the top, 6 at the bottom, and 10 deep. In each pot three plants may be placed tri-

angularly, not planting deeper than to fix them securely. The following compost is most suitable:—Two barrows full of fresh yellow loam, three of well-rotted horse-dung, and half a barrowful of river sand, well mixed; plant in it *without sifting*, but breaking very well with the spade, and have a free drainage of rough turf, &c.; place the plants in a sheltered situation out of doors.

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

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

CHRYSANTHEMUMS—sow seed of, and raise in moist heat. Mind the suckers of old plants are not drawn up; admit duly of air.

COMMELLINA TUBERS and *Tigridia* bulbs should now be planted.

CUTTINGS of *Talvias*, *Fuchsias*, *Heliotropes*, *Geraniums*, *Celsias*, *Alonsoas*, *Lotuses*, *Senecios*, &c., where it is desired to plant such out in beds, should be struck in moist heat as early as possible. Young shoots, cut off clean, strike readily. (See kinds of plants suitable, in vol. i. p. 38, and for additional kinds, subsequent vols.)

DAHLIAS—if not already put into excitement, should be done as early as possible. Seeds should also be sown, placing them in a hot-bed frame till up. Cuttings be taken off and struck in heat.

ACHIMENES, *Gesneria*, *Gloxinia*, and *Tropæolum* bulbs, &c., that have been kept dry during winter, should now be potted, and gently brought forward in heat.

HERBACEOUS perennials, biennials, &c., should now be divided, if required.

HYDRANGEAS.—Cuttings may now be taken off, cutting off the tops of any shoots that have very plump leading bulbs about one inch below the bud of each cutting. These inserted, each into a small pot, and placed in moist heat, will soon strike root, and will, with future proper treatment, bloom one fine head each, strikingly beautiful. To make them bloom blue, use charcoal (see present Number thereon).

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

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

RANUNCULUSES and **ANEMONES**—should now be planted, taking care no fresh applied dung is in the soil, nor should the ground to plant in be lightened up more than two inches deep. The soil of the bed should be half a yard deep at the least. The best roots for flowering are such as have the crowns high and firm, with regular placed claws. Another bed, planted a fortnight later, brings them into bloom, so as to assist a florist to select for a show.

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

Rose Trees, Lilacs, Pinks, Hyacinths, Narcissuses, Honeysuckles, Primroses, Double Furze, Dwarf Almonds, Rhodoras, Persian Irises, Sweet Violets, *Cinerarias*, *Azaleas*, *Hepaticas*, *Lily of the Vally*, *Jasmines*, &c., should still be brought in for forcing.

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

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

SEEDS—of greenhouse and similar plants may now successfully be sown, raised in moist temperature.





Fuchsia 'Constellation'.

THE
FLORICULTURAL CABINET,

APRIL 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

FUCHSIA CONSTELLATION. VAR. CLUSTER-FLOWERED.

ONAGRACEÆ. OCTANDRIA MONOGYNIA.

A PERSON possessing extensive knowledge, almost unbounded wealth, having every facility and opportunity to gratify the sight, has stated "the eye is never satisfied with seeing." In order to provide variety and beauty to meet desire, gigantic powers of mind have been skillfully engaged in ingenuity in every varied form which art and device could accomplish, to the production of objects to gratify the sense of vision; but after all that has been accomplished in other things, the works of God, as displayed in what are usually termed the "productions of nature," infinitely exceed them all in number, perfection, and beauty; and to a person of a contemplative and admiring mind, which every real florist possesses, there is nothing terrestrial so elevating to our ideas of beauty as the subject of flowers; and of all rational amusements the cultivation of plants is not only the most rational, pleasing, and interesting, but is unequalled in providing suitable objects to gratify and delight the sight of man.

For a considerable number of years the Florists of Great Britain and Holland have been enjoying the luxury of raising innumerable varieties of what are technically termed *florists' flowers*, as Tulips, Hyacinths, Ranunculuses, Carnations, Pinks, Picotees, Polyanthus, Auriculas, &c.; but during the last twenty years, and more especially the recent portion of that period, many cultivators of other classes of plants, as Camellias, Azaleas, Fuchsias, Calceolarias, Cinerarias, Pe-

largoniums, Rhododendrons, Chrysanthemums, &c., have paid attention to hybridizing the most dissimilar kinds, and rendering them highly popular flowers. Since the introduction, in the year 1837, of *Fuchsia fulgens*, and subsequently of *F. corymbiflora*, a fresh impulse has been given to the raising hybrids between these species and others, the result has been the production of numerous striking varieties, amongst which are some possessing great beauty, and highly deserving a place in every collection. The entire family of Fuchsias are objects of interest and attraction; the growth of the plants is graceful and pleasing; but when ornamented with a profusion of their elegant, pendant, highly and variously coloured blossoms, they become peculiarly beautiful, and give the whole of the kinds a superior claim to a situation wherever they can be introduced; as nearly all the kinds can be grown too with equal success in the open air, pit, frame, greenhouse, conservatory, or sitting-room; in form, as bushes, standards; or trained to a wall or trellis; and to bloom at least nine months in the year under protection.*

The handsome kind now figured was raised by Mr. Miller, nurseryman, of Ramsgate in Kent, and is an hybrid produced between *F. fulgens* and *F. corymbiflora*. The blossoms on the raceme, which Mr. Miller forwarded to us last season, were in a great measure separated when it arrived, but it appeared to be formed in the character of *F. corymbiflora*, more close, however, and forming a broad bunch. It deserves a places in every collection.

ARTICLE II.

FLORICULTURAL GLEANINGS.—No. 14.

WHAT IS THE SHAPE OF A PERFECT TULIP?

BY MR. WILLIAM HARRISON, SECRETARY TO THE FELTON FLORISTS' SOCIETY.

AN inquiry into the form necessary to constitute a perfect Tulip will no doubt be interesting to many of the readers of the FLORICULTURAL CABINET for 1844. The taste for this loveliest and most fascinating of all the florist's flowers is fast extending itself over almost every part of the kingdom; the choicest and purest varieties are bought up with eagerness by the competing florists, in even the remotest loca-

* The Fuchsia may well be deemed a most popular flower.

lities; and there is every prospect of the march of floral taste extending itself in a short time to every town and village of any importance in the kingdom.

That such a desirable state of things would be beneficial to society at large there can be no reasonable doubt. For what can be so harmless an amusement in a neighbourhood as a competing florists' society? What can be so delightful a recreation to a man as the pleasing occupation of looking after a garden? And how are the pleasures of a garden enhanced a thousand fold after the proprietor becomes a florist, and especially after he becomes a Tulip grower! The rude sports of our ancestors are neglected and almost forgotten, and the leisure hours of the tradesman are spent in the more agreeable occupation of meditating on the magnificent productions of the Almighty hand,—in no scene more lavishly displayed than in the gorgeous sight of a Tulip bed in full bloom. What has become of the cock-fights and bull-baitings of the last century? Gone! like the visions and superstitions of our ancestors. Departed! like the generations who enjoyed them, and succeeded by enjoyments of a more rational and ennobling kind. Let us then hope that this sign of improvement in society will continue and keep progressing; that happiness and comfort will soon be more generally diffused throughout our population, and that education and floriculture will shortly spread their precious boons more widely over "our sea-girt isle."

There is no flower more worthy of the attention of the modern florist than the Tulip; certainly none more worthy of occupying the pages of a floral publication. It is supposed by many to be the "lily of the field," alluded to by our Saviour in his admirable sermon on the mount; and this is probable, as it is a native of the Levant, and common throughout all Syria. "Behold the lilies of the field," says he; "they toil not, neither do they spin; and yet I say unto you, that even Solomon in all his glory was not arrayed like one of these." If, therefore, this flower in its wild state drew down such marked admiration from the Saviour himself, shall we cease to admire it now in the almost perfect state to which it has been brought by modern florists? Impossible.

Unfortunately for the "Southlander," the space occupied by this article will be thrown away. The fine sympathies that pervade the bosom of the ardent Tulip grower seem never yet to have penetrated

his, and he would rather felicitate himself over his "pounds and shillings saved," and his "Single Anemones," than enter into the Tulip growers' high anticipations of fine blooms from newly imported varieties. What would be the use of talking to him of the fine pencilling of Ely's Queen Victoria or Lawrence's Damascus, or the fine flaming of Dickson's Duke of Devonshire, Lawrence's Shakspeare, or a fine Polyphemus? What would he care for the beautiful feathering of a Lady Crewe, a Claudiana, a Comte de Vergennes, or a Jeffrey's Royal George? What would they be in comparison with his penny beauties and his "pounds saved?" He would brush them all from the floral arena "at one fell swoop," put his huge extinguisher over the whole, hurl their ambitious raisers into floral oblivion and despair, and substitute his "Single Anemones" in their stead.

Really, Mr. Editor, it is almost impossible to believe that any individual can be found, in the present advanced state of floriculture, entertaining such absurd ideas, and yet we have proof of the fact by the appearance of his paragraph in your December Number. But as this must proceed either from sheer ignorance of the merits of this favourite flower, or from a want of taste for the beauties of nature, and as every man has a right to ride his hobby-horse as he pleases, the Tulip growers of England, in the midst of their manifold enjoyments, may well afford to allow the "Southlander" to bestride his miserable jackass after his own fashion. He cannot, however, prevent them from considering Scott's beautiful lines in the "Lay of the Last Minstrel," with the change of a few words, as peculiarly applicable to himself:—

"Breathes there a man with soul so dead
Who never to himself hath said,

This Tulip bed is a glorious sight?

* * * * *

If such there breathe, go mark him well,
For him no minstrel raptures swell;
High though his titles, proud his name,
Boundless his wealth as wish can claim,
Despite those titles, power, and pelf,
The wretch, concenter'd all in self,
Living, shall forfeit fair renown,
And, doubly dying, shall go down
To the vile dust from whence he sprung,
Unwept, unhonour'd, and unsung!"

But what are the properties of a first-rate Tulip? Methinks I hear you now saying, Have patience, gentle reader, and we will now inquire. There are various opinions on this subject; and, as "A Star in the North" has twice of late repeated his opinion, that the proper form for the Tulip is "a semi-oblate spheroid," it is highly necessary to inquire into the correctness of his standard. What, then, is "a semi-oblate spheroid?" a spheroid is a solid formed by the revolution of an ellipse about one of its diameters, and when this revolution is made about the conjugate diameter it is called an oblate spheroid. If the conjugate and transverse diameters be to each other in the proportion of three to four inches, then the breadth of a Tulip cup, in the form of a "semi-oblate spheroid," would be four inches, while its depth would be one inch and a half. Should the transverse diameter be four inches, and the conjugate only two inches, then the breadth of the cup would remain four, while the depth would be only one inch, which, in my opinion, would be too near an approach to a horizontal plane to have any resemblance to a fine cup or beautiful goblet, to which the Tulip cup has often been compared. As the lengths of the diameters assimilate to each other, the spheroid approaches a globe, and when the two diameters become equal the two solids are identical; so that on reconsidering the subject, the "Star in the North" will perceive that he has given his definition of a fine Tulip in terms totally indefinite! What proportion he would therefore have to exist between the diameter of his standard cup and its depth we are totally at a loss to know, as a semi-oblate spheroid, whose relative dimensions are not given, may in fact be little thicker at its polar diameter than a line; or it may, at its maximum, become a complete hemisphere. It may, in fact, be as variable as the shades of the leaves in an autumnal forest, and the propriety of such a standard is therefore quite out of the question.

Having thus, I trust, sufficiently shown that the "semi-oblate spheroid" is too variable a standard to be worthy of adoption, let us now inquire what the most perfect shape would be for the cup of the Tulip. I think no one that is unprejudiced would disagree with Mr. Glenny on this point—that the Tulip cup should be some part of a hollow sphere, as that is a shape which remains unchangeable, although there may be many opinions regarding the depth which the cup ought to possess. Mr. G. advocates the third or the half of a

hollow ball, as the most perfect shape, giving, as his reason for adhering to so low a cup, that it gives the best opportunity for inspecting the whole of the interior of the corolla; and this is perfectly true: but the most of the north-country amateurs would view a Tulip which had opened to the third of a hollow ball quite in the light of a falling flower, and for this reason would protest against it.

It is worth while for any amateur who has not paid much attention to this subject to make a few drawings for himself, and he will then soon see that the third, or even the half of a hollow ball is but a very shallow cup. Let him describe three circles of four inches diameter each; cut one of them into two equal parts, and then he will have a cup four inches wide and two deep, which is about the greatest depth that Mr. Glenny would allow, but which the Northumbrian amateurs would say was "meagre," and rather too shallow. Let him cut off a quarter of the height from his next circle, and he will then have a cup remaining which will be about three inches and a half across the top, and three deep, which is the standard laid down by Mr. Slater at the beginning of his "Descriptive Catalogue." This forms a very fine cup, and there can be no fault found with it but one, and that is, that the petals are then beginning to incline so much inwards that judges would find it rather difficult to inspect the marking of the inside of the petals near the top of the cup. This would be a fatal blemish in form with many of the southern florists.

Let the inquirer now cut a third from the height of his last circle, and he will then have a cup remaining, which, in my opinion, is decidedly preferable to either of the foregoing; it will be about three inches and three quarters in breadth, and two and a half deep. This seems to me to be the standard nearest perfection, and which will be most likely to please both northern and southern amateurs, how fastidious soever they may be. It is not deep enough to be condemned by the southern florists as a long or egg-shaped cup, and is sufficiently wide at top, and the petals so little inclined inwards that a complete inspection of the interior of the corolla may easily be made; and it possesses a sufficient depth to rescue it from condemnation by the Northumbrian judge as a shallow "meagre" cup, or a flower on the point of falling. For all these reasons, therefore, I am inclined to contend that two-thirds of a hollow ball is nearer the true shape than either of the standards above mentioned.

“The Star of the North” is evidently a satellite of Mr. Groom’s, who advocated the “semi-oblate spheroid” idea at a meeting of the London Floricultural Society, April 5th, 1842, and was combated by Mr. Bowler, who seems to dislike this shape as much as any of us; and as many of the readers of the CABINET may not have seen this, I shall take the liberty of quoting his opinions on the subject.—(See “Gardener’s Chronicle,” April 23, 1842.)

“Mr. Bowler then commenced his remarks on Mr. Groom’s paper on the Tulip, from which he differed in many material points, pre-facing his account with a short notice of its physiological structure. He observed that Mr. Groom had recommended a semi-oblate spheroid as the most perfect form, which in his (Mr. Bowler’s) opinion was the very worst that could possibly be, not having sufficient power to retain its general outline; neither should the pole be depressed—in our best flowers it was not. He did not agree with Mr. Groom that the petals should have a gradual swell; this, with a semi-oblate spheroidal form, would produce quartering, and convert a beautiful outline into the resemblance of a common brace made by an unskilful hand. In his opinion the semi-globular was the more preferable, and was the medium form of all our best Tulips. It had been remarked that the third of a globular ball would represent the best shape; but he had never met with it, and in his idea it would present a meagre form. The edge of the petals should be unbroken; their greatest width near the top, which would prevent all quartering, (a term which in reality meant dividing into four; whereas the Tulip parts into six; and it would be better, in his opinion, if sextalising, or some more proper term, were substituted,) which is, however, greatly counteracted by night-covering. Sometimes the sepals fall first; at others, as in Rose Brilliant, petals and sepals fall together. With respect to colour, that of the ground is an important object; it varies from white to an intense yellow, the pure white and bright yellow being the best. The feather, whether broad or narrow, should be insensibly lost towards the centre of the petal in the ground colour, and forming fine unbroken lines, either alternately yellow and black, or white and rose. The true flame consists of a mass of colour in the centre of the petal, having an irregular and angular outline. It is usually associated with the feather, but it is impossible to associate

it with the broad feather. The starry bottom is too well known and appreciated to need much description; a flame without a feather often has the appearance of a star, although the absence of it was not necessary to form a star. He did not agree that flushing in colour was caused by damp, since as many flowers flushed in the open border as in the stage; in many it was an inherent quality, the effect only being known and not the cause. For colour, cleanliness, and texture, he would mention *Cerise*, *Blanche*, and *Gloria Mundi*, which had always been appreciated and held their place, while thousands of others had been thrown away. In the former, the cuticle was particularly beautiful, and gave it that fine glossy appearance which it possessed; and also in *Rose Brilliant*, which had stood the test for thirty years."

From this it appears that Mr. Bowler is an advocate for the half of a hollow ball at least; and if he had only added a little to the depth of the cup I think that a great many of the Northumbrian amateurs would have agreed with him. It thus appears that in advocating his favourite shape, the "Star in the North" is likely to find himself nearly in the "glorious minority of one."

I must beg leave to differ from the "Star in the North," when he says that the first property of the Tulip is shape. Shape may fairly lay claim to the second property; but if a Tulip has not a clean bottom every experienced grower knows how little it is worth, whatever may be its shape or marking; and therefore a pure bottom, in my opinion, is decidedly the first essential property. What, for instance, is the reason why *Louis XVI.* is not more generally bought and cultivated by amateurs? Why does it not take its place in the London stands of winning flowers, while such flowers as *Holmes's King*, and *Rougeatre*, *Franciscus Primus*, and *Violet Imperial* are allowed that honour? The reason is obvious—its bottom condemns it. Although it possesses a beautifully rounded petal, florists who have severe competition will not throw away their money for it, since it would be passed over by good judges, and the preference given to some of the cleaner-bottomed flowers. If, therefore, shape will not rescue this celebrated variety from neglect, how can shape be considered the first property? I merely mention this variety by way of illustration.

Much credit is due to Mr. Slater for the industry and research dis-

played in his "Descriptive Catalogue;" and though we may differ in some minor points, the great mass of information it contains must be a decided boon to the purchasing amateur. I myself have acted upon it, and have added considerably to my stock of feathered varieties this last autumn, and trust they will turn out according to the descriptions given. But the remarks embodied in his descriptions afford another proof of the great difference of taste which prevails in the different localities, and prove that the stained-bottom varieties, in the Yorkshire districts at least, are yet allowed to win. This is evident from the descriptions of Coggeshall Hero, La Belle Narene, Louis XVI., Red Rover, Reine de Tulips, Lady Wilmott, &c., which are described as "fine," or "excellent" show flowers, while at the same time their bottoms are admitted to be stained. This is much to be regretted, as many of the clean-bottomed flowers are now quite reasonable, and not at all out of the reach of even the humble amateur. Our competitors here will buy no varieties at all without they have perfectly pure bottoms, for the very powerful reason, that they know they would avail them nothing at the Northumbrian exhibitions; and they who are induced to begin "the fancy," for the sake of a little friendly competition, have far less trouble and far more pleasure in attending to a small, but select, collection of clean varieties, than they would have in growing a larger collection, which would afford no gratification to the scrutinising eyes of the connoisseur.

I beg to apologize for having trespassed so long on your space with this, perhaps diffusive, article; but as it is a favourite subject with me, and as I have not been troublesome of late, perhaps you will bear with me. I have expressed my opinions freely, not with the intention of provoking controversy, but merely to advocate what I consider the best shape for the Tulip, viz.: two-thirds of a hollow ball; and trusting that the inquiry will not be uninteresting to many of the readers of the CABINET, I shall now close this paper, and

"Resign my weary eyes to the kind nurse of men."

ARTICLE III.

ON THE PLEASURES AND ADVANTAGES OF FLORICULTURE.

BY J. HALL, JUN., SHEFFIELD.

“ 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 learn, and something to digest,
 E'en in the humble weed.”

As the year advances, and spring once more resumes her seat, bringing along with her “the soft'ning dews, the tender showers,” and all the early tokens of reviving nature, what a train of pleasurable thoughts and anticipations crowd upon the mind of the florist. To him every leaf and every bud has a charm and interest; everything is lovely and full of promise; and as he gazes, with rapturous eyes, on the unfolding beauties around him, and watches from day to day the continual disclosures of “Nature's swift and secret-working hand,” he is led to exclaim, with the heart-felt gratitude of Thomson;—

“ Come, gentle Spring, ethereal mildness, come!
 And from the bosom of yon dropping cloud,
 While music wakes around, veil'd in a show'r
 Of shadowy roses, on our plains descend.”

Thus, joyous and full of hope, he now resumes, in the garden, his favourite and salutary pursuits; now scattering the seed for summer's ripening; now digging and planting, and removing finally for bloom the various ornaments of the parterre; and while he is thus relishing, with eager appetite, the pure and unfeigned pleasures that arise from a floricultural taste, the only source of regret to him is, that other minds and other spirits should not also partake of this enjoyment. The banquet is spread for all, and nature invites to the feast! It is therefore my object, if possible, to encourage the cultivation of this taste, and to recommend floriculture, as a pursuit, worthy the attention of every rational being. I would recommend it—

In the first place, as a rational and innocent amusement. There are few men that have not some favourite pursuit or other—some hobby-horse—with which to fill up leisure moments, and soften down the cares and anxieties of business. Many and various are the

expedients which men thus try, to gratify their various tastes and dispositions. Some seek pleasure in the chase, some in the dance, some in one thing, and some in another; and, although harmless and innocent in themselves many of these may be, yet in floriculture, as a pursuit, I claim a superiority and ascendancy over these; inasmuch as it is not only an innocent one, but one that is rational, intellectual, and consistent with the Creator's original design for his creature's happiness. Our first parents, in the days of their innocence and purity, were placed in a garden; and, not only to admire and contemplate its beauties, but, as we read, also "to dress and to till it." From which it is manifest that the flower-garden is a spot intended by the Almighty for man's enjoyment and recreation. And what, indeed, can be more delightful than to study the wondrous laws of Nature, to assist her in her curious and delicate operations, and, by the aid of art, draw out from her those beauties and perfections which would otherwise remain obscure. Another reason of its superiority is that, while other pursuits are but momentary and transient with the season, floriculture is one that can always be enjoyed, always affording sweet reminiscences when past, and pleasant anticipations of the future. We may therefore truly say that "the flower-garden is an endless source of pleasure."

Secondly, I recommend it "as an interesting art and science." The study of floriculture includes in it many most beautiful and delicate arts. We will take, for example, the art of hybridizing,—a process which requires the most exquisite skill and nicety. This is performed by extracting the pollen or dust that is contained in the anthers of one flower, and applying it to the pistil of another. By this means the respective properties of the two flowers become blended, and the seed of the one thus impregnated will produce varieties altogether unique and distinct. There is, likewise, the art of budding and grafting, and various other arts which require equal skill and dexterity in management. It leads us also into science, and that of by no means the least order. The study of botany, the investigation of soils, and the application of manures, all afford scope for the promotion and advancement of science; and such is the progress which, by the aid of chemistry, this science has made, that we can now accurately ascertain what portions of the soil are absorbed by different plants, and therefore what kind of support is necessary

to replenish it. By this means every plant may thus have its peculiar food and nourishment. Floriculture is not, then, the mere toy and pastime of a few Dutch boors or Spitalfield weavers, as it was of yore, but an art and a science worthy the attention of every inquiring mind.

And, lastly, I recommend it “as inducing habits of industry, and productive of health and happiness.” The continued progress of floriculture, and the encouragement given to it by the formation of floral societies, exhibitions, &c., while they excite the enthusiastic florist to praiseworthy and honourable emulation, also prompt him to the most unwearied industry and perseverance for its accomplishment. His hands are always in employment, and his mind as actively engaged in forethought and providence for the future. Thus habits are early inculcated which will also attend him in all the walks of life.

As to the healthfulness of the pursuit, there is none but will admit it. On this point all doctors agree; for, although fresh air and exercise may be obtained by other means than that of gardening, yet to men of active minds, and particularly men in business, some stimulant—some attraction—is necessary to draw them from the all-engrossing cares of busy life, in order to lead them in the more still and quiet paths of nature. Floriculture furnishes this stimulant; for, while it gives health and recreation to the body, it also affords to the mind new and pleasant subjects to think upon, enlivens the spirits, and produces a cheerful and contented disposition. To the artizan and working man it is especially beneficial; for, while yielding to him a solace and a balm after his hours of daily labour and toil, it at the same time keeps him aloof from those low and debasing practices which so often corrupt the morals of his fellow-mortals. Instead of returning home at night, fierce and besotted from the beer-house, he comes with a cheerful countenance to receive the welcome of a still more smiling wife; and he is thus far a happy man. To those, therefore, that are strangers to this source of happiness and enjoyment, I recommend, for once, the trial of it. Let them try it at its most captivating and propitious season; let them go forth at balmy morn, and behold the beauties of the garden on a morning in spring; let them for once forsake their “falsely-luxurious” ease, and—

“Springing from the bed of sloth, enjoy
The cool, the silent, and the fragrant hour.”

Then would they, for the first time, exclaim with Milton,—

“ Sweet is the breath of morn ! her rising, sweet
 With charm of earliest birds ; pleasant the sun,
 When first on this delightful land he spreads
 His orient beams on herb, tree, plant, and flower,
 Glitt’ring with dew.”

ARTICLE IV.

ON TRENCHING GROUND, IN ORDER TO EXPOSE THE SOIL TO FROST.

BY ARIES, OF TONBRIDGE WELLS.

NOT being aware that the following mode of exposing the soil to the influence of frost has been practised by gardeners, I beg to introduce it to the notice of horticulturists through the medium of your valuable magazine.

In the autumn I dig wide deep trenches, and throw up the earth as high as possible in the middle, thereby leaving on each side a hollow trench. As soon as the first frost has formed a hard crust I throw the soil down into the trench on each side ; and this I repeat as often as there is a fresh crust formed by the frost, till the whole has been exposed, when there will be formed two ridges instead of one. By this means I have, even this mild winter, subjected the part of my garden so treated to the frost to a considerable depth, while in the unmoved ground it has never penetrated far below the surface. It will be observed that a continuance of frost is not necessary for the performance of this work, but that every short period of it may be taken advantage of. The labour, besides being done at the least busy time, is very trifling, and is most amply repaid, particularly on stiff soil, by the ease with which it is afterwards worked, owing to its state of division from being mellowed and made friable, every part being exposed to the atmosphere. No plan can more effectually destroy insects or the seeds of weeds.

[This article should have gone in our last number, as intended by our correspondent ; but, having been received only four days before the close of February, it was too late to be inserted.—CONDUCTOR.]

ARTICLE V.

ON THE PINK.

BY FLORISTA.

THE article inserted in the last December Number of the CABINET was written expressly for the purpose of eliciting the opinions of the cultivators of the Pink, as to what should be considered the requisite qualities of a first rate flower; or, in other words, to give their sentiments as to a standard being adopted, to which all might accede.

I have read the remarks made by Mr. Ibbett in the last Number of the CABINET, and which, in my opinion, are not in any degree satisfactory. After some uncalled-for observations on anonymous correspondents, he proceeds to say he differs from the assertion I have made, "that the northern and southern florists are at issue on the properties requisite to constitute a first-rate flower;" and in support of his view he states he has for some years supplied Pinks to several cultivators residing in northern counties. Doubtless this is a very gratifying circumstance to him; but I beg to say it is not an answer to my previous statement. I might as well inquire whether he purchased any of the northern Pinks in return, and how the blooms were placed at the flower exhibitions at which he was a competitor; for it is generally known that few of the northern varieties are cultivated in the neighbourhood of the metropolis, and I am inclined to think some cause must be assigned for such a circumstance; yet if it is not on account of the difference of opinion regarding the properties requisite to constitute a first-rate variety. I am sure Mr. Ibbett would confer a great obligation by stating how it can be otherwise accounted for. He will further oblige by stating how many of the Pinks sent by him into the northern districts have taken prizes; and particularly whether any southern varieties have been staged at any of the various flower shows held in the following towns in Yorkshire, viz., Sheffield, Leeds, Bradford, Halifax, Wakefield, and Huddersfield—places where the cultivation of this particular flower is carried on to an amazing extent.

I find Mr. Ibbett has not even alluded to the statement I have made regarding the shape of petal-lacing and colour of the northern Pinks being surpassed by any of the southern ones, but proceeds to notice Norman's Henry, which he pronounces a first-rate flower. I believe he will find, on reading the passage again, that my observations

were confined to the portrait of this flower; and I again assert that if it be a correct likeness it is a confused and shapeless mass. I beg to refer him to the work in which this portrait is to be found; it is in Wakeling's "Florists and Amateurs' Guide" for the month of July, 1841.

The remarks on my allusion to Garratt's Alpha are very vague, as it is rather a curious coincidence that he has not yet grown a sufficient quantity to enable him to form an opinion upon it, particularly as this is the crack flower of the metropolitan fanciers; and, besides, he professes to grow plants for competitors, who, doubtless, must have had this particular variety in their collections. I observe he admits my remarks, or, as otherwise expressed, attack! on Omega; for I find his statement is, "with all its defects I shall never discard it from my collection."

I was not aware it would have been considered such a responsible undertaking in expressing a candid opinion on the merits of a flower, or in stating by what standard its properties should be defined, or I certainly should have paused before I ventured to solicit Mr. Ibbett's opinion on the subject.

I collect, from the concluding passage of his remarks, that he declines furnishing a descriptive list of flowers, and considers no one capable of expressing an opinion, or laying down any criterion for attaining perfection, but the exhibitors at certain societies in his neighbourhood, and to whose awards and transactions he refers us for the description of the properties of first-rate flowers, overlooking the circumstance that the proceedings of such societies are inaccessible to parties residing hundreds of miles from the places where these exhibitions are held. "Here break we off."

A Midland County, 10th March, 1844.

ARTICLE VI.

REMARKS ON THE PINK, &c.

BY MR. WILLIAM DENT, JUN., OF PRESTON, LANCASHIRE.

I AM sorry to notice so great a want of cordiality in the south country florists towards their brethren in the north, and to observe a specimen of the fact in the reply of Mr. Ibbett to Florista, inserted in the March Number of the CABINET, where he so unjustly attacks the

Lancashire Pink growers. If the growers in this county have not been so fortunate as to have raised Pinks to suit the fancy of Mr. Ibbett, he ought not to condemn them, but rather, as a professed admirer of the Pink, applaud the attempts which have been made in Lancashire; and as he appears to know in what the florists in this part are defective, it would have been a better course of conduct to have given the particulars of the system pursued by the Pink growers of the south. If a more friendly feeling existed amongst the florists, it would greatly tend to promote the advance of floriculture. The culture of flowers is my favourite hobby-horse, and I hope the day is far distant when I shall have to dismount. Mr. Ibbett will, I hope, say if the gentleman he has sent Pinks to for three seasons together is an exhibitor, as we shall then know if it is any criterion to go by; for some gentlemen only fancy Pinks having plenty of petals, without paying any regard to the confused state of the flower. This, I am inclined to think, is the character of most part of the London raised Pinks; at least it is the case of many I have grown. I am this year growing all the pet sorts from the south, amongst which are the following:—Alpha, Model, Dr. Coke, Dean Swift, Champion, Navigator, Henry Creed, President, Ne Plus Ultra, Coronation, Wilmer's Queen, Duke of Wellington, Hodge's 166, Mary Ann, Lady Flora Hastings, Wonder, Gem, Earl of Uxbridge, One in the Ring, Queen Victoria, Nelson's Glory, Prince Albert, Beauty of Cray, Countess of Stanhope, Omega, and several other south Pinks. I have great faults to find with many of them, of which I shall remark in some future CABINET. At the blooming season I intend to make notes of all, and then state my opinions, without being prejudiced to one sort or other.

I beg to inform Florista, the standard by which we judge Pinks in Lancashire is as follows:—The lace to go through to the outer edge of the petal, without being entirely edged with a margin of grey; the moon's pure white, to have the points go well to the shoulder of the petal, without the eye and lace meeting too abrupt, which would cause the moons to be spade shaped, which is a great drawback upon any Pink; the petals thick, edge fine, pod good, and the eye and lace of the same colour. Such flowers are fine to look upon, and I am proud to say that Lancashire florists have raised Pinks which come to the above standard.

PART II.

LIST OF NEW AND RARE PLANTS.

ARCTOSTAPHYLOS PUNGENS. Pungent Barberry. (Bot. Reg. 17.) Ericaceæ, Decandria Monogynia. A native of Mexico, discovered by Mr. Hartweg, at an elevation of 7000 to 9000 feet above the sea, forming an evergreen shrub six to eight feet high. It is likely to be, in this country, a hardy evergreen, growing about a yard high. It seldom can be kept alive for more than two or three seasons after being raised from seeds, even in pots, unless shaded from mid-day sun during summer. The flowers are produced on short pendant racemes. The blossoms are about the size, and form too, of the Irish heath, of a rosy-pink colour.

BERBERIS PALLIDA. Pale Ash-leaved Barberry. (Bot. Reg. 16.) Berberaceæ, Hexandria Monogynia. This is a new species, from Mexico, from whence Mr. Hartweg has sent seven species. It there forms an evergreen shrub, six feet high. It is of the section termed pinnated, or a-h-leaved, with yellow blossoms numerous produced on a looseish raceme near six inches long. Up to the present time it has been grown in a cool pit in the gardens of the London Horticultural Society. It is easily increased, like the other new kinds of *Berberis*, by grafting in spring or autumn on the common *B. aquifolium*.

BOLBOPHYLLUM MACRANTHUM. Large-flowered. (Bot. Reg. 13.) Orchidaceæ, Gynandria Monandria. Sent to Messrs. Loddiges's, from Singapore. The flowers are produced singly, on a footstalk about four inches long. Each blossom is two inches across, the centre is a yellowish green; the rest of it is purple spotted with dark. It blooms in spring.

BROMHEADIA PALUSTRIS. The Marsh. (Bot. Reg. 18.) The plant has much the appearance of *Epidendrum elongatum*. The flower spikes have several upon each. The blossoms are about two inches and a-half across, spreading quite open; sepals and petals white. The labellum is straw-coloured in the middle, violet tips, with purple and yellow interspersed.

CAMPANULA FRAGILIS. Var. *Hirsuta*. Hairy fragile Bell Flower. (Pax. Mag. Bot.) Campanulaceæ, Pentandria Monogynia. A very neat and interesting species, a native of Italy, thriving beautifully when grown in the greenhouse, in a sunny situation. It is a compact-growing herbaceous perennial plant, the branches hanging over the sides of the pot, which bloom very profusely. Each blossom is about an inch and a-half across, spreading quite open, and nearly flat, of a beautiful pale blue colour. It is one of the neatest greenhouse ornaments, well deserving cultivation. It may be had at the principal nurseries.

DISA GRANDIFLORA. Large-flowered. (Bot. Mag. 4073.) Orchidaceæ, Gynandria Monandria. A terrestrial Orchideæ. A native of the Cape of Good Hope, where it is termed the pride of Table Mountain; and Mr. Harvey adds "that every stream is literally bordered with it in the month of March. There the flower-stem rises two feet and a-half high, and each blossom is about five inches across. The sepals a rich red, petals same, very small; labellum red and yellow, with deep crimson veins. The natural situation of growth is on the margin of pools of standing water, the drainage of the boggy slopes of the mountain, where the roots are immersed. These are dry, or nearly so, in summer. It is a splendid flowering plant, well deserving a place in every collection of Cape bulbous and tuberous plants.

GLADIOLUS GANDIENSIS. The Ghent Corn-flag. (Pax. Mag. Bot.) Iridaceæ, Triandria Monogynia. It is an hybrid, very probably from the *G. communis*, impregnated with *G. pudibundus*. The flowers have the openness of the latter, with somewhat of the tints in the colours. The flowers are of a fine crimson-red, with the lower petals, towards their origin, yellow slightly streaked with red. It is a fine flowering variety, highly deserving a situation in every warm part of the flower-garden, or in the open bed of a greenhouse, conservatory, or cool pit-frame. Messrs. Mountjoys, of Ealing, have the plant. Messrs. Rol-

lissons, of Tooting, possess an hybrid of a very similar character, having a little more pale yellow on the lower petals.

HOULLETTIA BROCKLEHURSTIANA. Mr. Brocklehurst's. (Bot. Mag. 4072.) Orchidaceæ, Gynandria Monandria. A native of the Brazils, from whence it was introduced into this country by Mr. Wanklyn, of Crumpsall House, Manchester. It first flowered in Mr. Brocklehurst's collection, at the Fence, near Macclesfield. The flower-stem rises two feet high, terminating in a spiked raceme of six or eight large and most singularly beautiful blossoms. Petals and sepals have the upper half, top portion, of a rich crimson-red, and the lower yellow; all most beautifully spotted and blotched with bright red. Lip yellow spotted with deep purple, sometimes having the terminal lobe almost wholly of a rich purple. The underside of the flowers are of a fawn colour, slightly spotted. Each blossom is nearly three inches across.

NELUMBium CASPICUM. Caspian Nelumbium. (Bot. Reg. 14.) Nelumbiaceæ, Polyadelphia Polygynia. It is a stove aquatic plant, in the collection of Messrs. Rollissons. Each blossom is from six to eight inches across, white, with a yellow tinge at the centre, and each petal tipped with rose.

PHASEOLUS LOBATUS. Lobe-leaved Kidney Bean. (Bot. Mag. 4076.) Leguminosæ, Diadelphia Decandria. Mr. Tweedie sent seeds of it from Buenos Ayres to the Glasnevin Botanic Garden. The stem is twining. The flowers are produced in close racemes, yellow.

QUISQUALIS SINENSIS. The Chinese. (Bot. Reg. 15.) Combretaceæ, Decandria Monogynia. It is found in its native state growing about Canton, in China. It is a stove climber, similar to the old *Q. indica*. The flowers are large, and of a deep rosy-red colour. It is a very interesting and pretty species. Messrs. Lucombe and Pince, of the Exeter Nursery, possess the plant.

VISCARIA OCLATA. Dark-eyed. (Bot. Mag. 4075.) Caryophyllææ, Decandria Pentagynia. (Synonym *Lychnis oculata*.) It is a native of the north coast of Africa, seeds of which were received by Messrs. Backhouse, nurserymen, of York. It is said by some to be an annual, by others can be kept a perennial. The plant grows erect, and blooms profusely during several months of summer and autumn. Each blossom is near two inches across, of a beautiful rosy-lilac, having a rich crimson eye. It grows well treated as a hardy annual border flower. It deserves a place in every flower garden.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON *TIGRIDIA PAVONIA*.—Having received a few of those bulbs, the Editor of the *CABINET* will oblige if he will inform me what depth to plant them, and in what soil. Do they require a shady or sunny situation?

Felton, March 13, 1844.

ELIZABETH.

[Plant the bulbs so that they be covered about an inch. A rich loamy soil on a dry subsoil suits them. The best situation is a warm but open one, and sheltered from strong winds, or the petals, which are tender, will be damaged. By the early part of October take up the bulbs with a quantity of soil adhering to them; place them so, entire, in a dry situation, where the soil will dry gradually and free from frost or damp. If put in a basket or box it is suitable. Thus kept entire, the bulbs will keep sound.—CONDUCTOR.]

ON FORCING ROSES IN POTS.—I would be much obliged if you or some of your floricultural friends would give, through the medium of your periodical, the *CABINET*, an account of what may be the best mode of culture of Roses intended

for forcing, from the time they are potted till they are brought into the stove. As I believe this is considered a good time for potting, an early answer will much oblige.

Dublin, March 12, 1844.

M. B.

[In the August number of last year's FLORICULTURAL CABINET, there is a long and excellent article on the subject, which we inserted by permission of the writer.—CONDUCTOR.]

ON THE BIRMINGHAM GIANT COCKSCOMB.—In the CABINET for August, 1842, I see a notice of the "Birmingham Giant Cockscomb." Can you say in your next where seeds of it may be obtained? I have made inquiry both last season and this but without success.

Falkirk.

A SUBSCRIBER.

[We can supply our correspondent.—CONDUCTOR.]

ON ZINC LABELS.—Our inquirer (ANON.) may procure the labels of the Zinc cutters, and the ink required be made of the following, viz., water, 10 drachms; verdigris, in powder, 1 drachm; lamp black, in powder, $\frac{1}{2}$ a drachm; sal ammoniac, in powder, 1 drachm.—CONDUCTOR.

REMARKS.

LONDON HORTICULTURAL SOCIETY MEETING.

ON February 20, there were exhibited from Mr. J. Brewster, gardener to Mrs. Wray, of Cheltenham, a plant of *Lælia superbiens*, having a spike about five and a half inches long, of pretty purple blossoms, which, although truly beautiful, were not so well coloured as could have been wished; but it frequently happens that orchidaceous plants fail to produce their first flowers well, and very possibly this may improve in course of cultivation. This plant, the honour of first flowering which belongs to Mrs. Wray, and which has created so much interest, is a native of Guatemala, where it was first discovered by Mr. Skinner—the finest specimens being in ravines, and growing out of the fissures of rocks sheltered from north-west winds. Some of the plants have bulbs 22 inches high, and flower-stems four yards long having 22 flowers. Mr. Hartweg, who also met with it in abundance in the neighbourhood of Chantla, where it is planted by the Indians in front of their doors and exists in immense quantities, says that the length of the stem, being four yards, is uncommon, and that the average number of flowers in clusters is from 7 to 15. A strong plant of this is also in flower in the garden of the Society, growing on a block, where it succeeds well. According to Mr. Skinner, it thrives best in a temperature from 55° to 65°. Mr. Brewster also sent cut flowers of *Phycella ignea*, a Chilean bulb, having beautiful bright-red flowers; this is not hardy, but might possibly be made to succeed in a dry border, if planted out at an early period, and protected by sand being laid over the surface of the ground, the great fault of bulbs from that quarter being their making an attempt to grow during our winter. From the same collection was also a *Cryptandra*, having a fragrance somewhat resembling that of a Hawthorn; a large silver medal was awarded for the *Lælia superbiens*. Mr. J. Robertson, gardener to Mrs. Lawrence, sent *Phaius Wallichii*, in good condition, having large brown and white blossoms; *Oncidium Cavendishianum*, that has kept in bloom nearly five weeks; *Hippeastrum aulicum*, with large red flowers; a variety of *Cyrtorchilus maculatum*, and a large plant of *Cymbidium aloifolium*. From the same collection were likewise *Oncidium reflexum*, a *Maxillaria*, with a pale-coloured blossom; well-grown plants of *Dendrobium Wallichii*, and *D. pulchellum*, the latter twining gracefully over a globular trellis, filled with moss. There was also *Bletia havanensis*, with pretty purple blossoms, and a well-grown plant of the brilliant scarlet-flowered *Centradenia rosea*, which has the good property of being a very profuse bloomer. Mr. Robertson also sent *Begonia*

manicata, a plant of recent introduction, with pretty flesh-coloured blossoms. This plant, on account of its long white hairs under the leaves, and large brilliant manicate scales, has a curious appearance. *Oncidium longifolium* was also in the same collection, and a beautiful plant of *Epacris variabilis*, completely covered with blossom; a Knightian medal was awarded for the three last. From Mr. Kennington, gardener to F. G. Cox, Esq., of Stockwell, was the rare *Phalænopsis amabilis*, on a block, having very conspicuous large snow-white blossoms. From the same were also *Huntleya violacea*, *Cyrtochilum maculatum*, a pretty plant of *Phaius intermedius*, *Bletia Tankervillei*, and *Brasavola nodosa*, with small white and green flowers; a Banksian medal was awarded for the *Phalænopsis amabilis*. Mr. Gaines, of Battersea, sent for exhibition seven varieties of *Camellias*. From Mr. W. Scott, gardener to C. Barclay, Esq., was a cut specimen of a flower from a bulb sent from Peru by Mr. Hartweg, having a stem about three feet high, with curious green and red blossoms; a certificate was awarded. From Mr. J. Wells, gardener to W. Wells, Esq., were cut flowers of *Camellias*, and a fine plant of an *Enkianthus*, quite covered with pretty flesh-coloured bell-shaped flowers, having considerable resemblance to the old *E. quinqueflorus*. Mr. Fortune found these shrubs growing in abundance on the mountains of Hong-Kong; a Banksian medal was awarded for the *Enkianthus*. Mr. J. Plant, gardener to J. H. Schroder, Esq., of Brixton, sent a very large specimen of *Epidendrum odoratissimum*, having a fine panicle of dingy yellow blossoms; a certificate was awarded. From Mr. Henderson, of Pine-apple-place, was a beautiful small plant of *Epacris impressa alba*, the pretty *Erica mutabilis*, remarkable for its long season of flowering; *Begonia manicata*, *B. coccinea*, with brilliant scarlet flowers, a beautiful plant of *Dendrobium nobile*, completely covered with blossoms, and a specimen of *Franciscea latifolia*, which, besides possessing the agreeable fragrance of *F. Hopeana*, is a free grower; a Banksian medal was awarded for the two last. Mr. Ayres, gardener to J. Cook, Esq., sent two seedling *Cinerarias*, one being a bright blue, and the other a purple. From J. Allnut, Esq., was an excellent specimen, in a large pot, of the double white *Primula*, the leaves of which being of a bright green, were perfectly free from spot, and the flowers were beautifully white; a certificate was awarded. W. Jackson, Esq., of Salcombe, Kingsbridge, Devon, sent specimens of the Seville Orange, Malta Sweet Orange, Shaddock, and Lemons, that had been grown on an east wall, protected only by a glass frame in winter. From the garden of the Society were *Dendrobium nobile* and *cucullatum*, *Epidendrum macrochilum*, *Oncidium ensatum*, a pretty plant of *Phaius grandiflorus*; *Spiranthes cerina*, sent by Mr. Hartweg, and a species of *Stenomesson* from the same; also plants of *Epacris nivalis*, *E. campanulata alba*, and a seedling *Epacris*, with two pretty plants of the double pink *Primula sinensis* that were raised from cuttings struck late in autumn. The soil in which they are growing is mixed with superphosphate of lime, which seems to be more beneficial to plants than any substance of a similar nature yet discovered. There were also flowers of *Chimonanthus fragrans*, *grandiflorus*, and *parviflorus*.

On March 5th were exhibited, from S. Rucker, Esq., two exceedingly handsome large-flowered varieties of the *Lycas'e Skinneri*, differing in colour, the one being paler, with a more distinctly marked lip than the other, which was of a deeper purple. Along with these was *Phalænopsis amabilis*, a plant of great beauty, having a fine bending raceme of large showy white blossoms; also a specimen of *Cyrtochilum maculatum*, having two pretty spikes of brown and white blossoms; and a plant of *Cypripedium barbatum*, which considerably resembles *venustum*. From the same collection was likewise the scarce *Galeandra Devoniana*, and a cut spike of *Coryanthes maculata*, curious on account of having its lip gathered up into a kind of bucket, which serves in the economy of the plant to hold a sweet fluid, which slowly drops into it from two processes or secreting glands that are situated immediately above it; a large silver medal was awarded to Mr. Rucker for this collection. Mr. Robertson, gardener to Mrs. Lawrence, sent a well-grown plant of *Æschyanthus maculatus*, with dark fleshy leaves, among which its numerous clusters of gorgeous scarlet blossoms produced a pretty effect. Also plants of the pretty *Schomburgkia undulata* and *S. crispa*, having tall flower-stems bearing rich heads of showy blossoms. From the

same collection was likewise a pretty plant of *Camarotis purpurea*, growing in a basket, and a well-grown specimen of *Styphelia tubiflora*, a greenhouse plant of a gay graceful appearance; a Knightian medal was awarded for the Schomburgkias, *Camarotis*, and *Styphelia*. From Messrs. Rollisson, of Tooting, were beautiful plants of *Dendrobium densiflorum* and *D. Cambridgeanum*, the latter with handsome racemes of bright orange blossoms, having a pretty dark velvety spot on the labellum. In the same collection was likewise *Phalænopsis amabilis* in good condition; also *Cœlogyne cristata*, a scarce plant, having pretty fragrant blossoms of pure white, except the lip, which, in the centre, is covered with bright yellow fringes; also a beautiful large-flowered variety of *Oncidium papilio*, much superior to the old one, both in point of size and colour. Messrs. Rollisson likewise sent a variety of *Cattleya Mossiæ*, a *Maxillaria* from Guatemala, and a new species of *Miltonia* from Brazil, having handsome brown and white blossoms; a Knightian medal was awarded for these. Mr. Kennington, gardener to F. Cox, Esq., of Stockwell, exhibited *Stanhopea quadricornis*, having a fine spike of flowers; *Zygopetalum rostratum*, *Oncidium papilio*, and *Dendrobium Pierardi*, on a block, in good condition. From Messrs. Veitch and Son, of Exeter, was *Lycaste Skinneri*, and *Barbacenia squamata*, with red star-like flowers, and a small hard dry foliage, that was lately introduced by Mr. Veitch's collector; a certificate was awarded for it. From Mr. Jackson, of Kingston, was a cut specimen of *Inga pulcherrima*, a pretty stove plant, having charming tassels of bloom, which are formed by the long crimson filaments. C. B. Warner, Esq., sent a collection of cut flowers, among which were *Dendrobium densiflorum*, *Camarotis purpurea*, a *Bletia*, &c. Mrs. Marryatt sent a cut flower of *Schomburgkia marginata*, which, although not so showy as others of this genus, is nevertheless pretty. Mr. Glendinning, of Chiswick Nursery, sent a beautiful plant of *Eriostemon buxifolius*, of which he writes as follows:—"It is one of the prettiest plants we have, and may be forced into flower at any period during the winter months. Its fine dark green foliage, and neat habit, combined with its abundant snow-white, sweet-scented blossoms, render it an object of much interest. It will stand a good deal of forcing without the least injury, and remain in blossom for a considerable period. It is, therefore, a plant not only desirable for summer exhibition, but more especially for decorating the conservatory or drawing-room in winter. Cut sprigs of it are very useful in making bouquets." Mr. Glendinning states that this plant, which is now in good health and covered with bloom, is of small size, growing in a small pot about six months ago, and in bad health, but that one large shift and a higher temperature had brought it to its present healthy and luxuriant state; a Banksian medal was awarded for this. From Mr. Hamp, gardener to J. Thorne, Esq., was a bushy plant of *Epacris nivalis*, a large specimen of *Phaius Tankervilleæ*, and a small plant of *Franciscea Hopeana*, along with *Erica transparens*, which was in good condition.

March 19th.—Mr. Cockburn, gardener to the Earl of Mansfield, at Kenwood, sent bulbs of *Oxalis Deppei* for the purpose of being distributed. A smaller, and in every respect an inferior kind to this, is generally cultivated for it, which is no doubt one reason why this root is not more in use for culinary purposes. In Belgium it is extensively grown, where not only the tubers but the leaves are also made use of. Respecting its culture, Mr. Cockburn says, "I have grown it for several years, and I am convinced that if a little attention is paid to its cultivation it will be found very useful in the months of October, November, and December; but it would require a longer season of fine weather than our climate affords to bring its tubers to perfect maturity. The bulbs should be potted as early in spring as circumstances will permit, and as they vegetate in a low temperature the pots may be placed in a Peachhouse, greenhouse, or even in a cold frame; but they must not be turned out of doors until all danger of frost is over. They thrive best in a light sandy soil in a southern exposure; the bulbs may be planted from nine to twelve inches apart each way, and should be so arranged that they may be protected from the early frosts of October and November by a slight covering of straw, mats, or spare lights. As eight or ten good tubers are sufficient for a dish, there may be two or three dishes a-week for three or four

months, which is no small acquisition to a gardener who has a family at that season to supply with vegetables. Along with these Mr. Cockburn sent for exhibition a tall well-grown specimen of *Corræa Harrisii*, for which a certificate was awarded. From Mr. Robertson, gardener to Mrs. Lawrence, was a collection of plants, containing handsome specimens of *Epidendrum rhizophorum*, a rather scarce plant, remarkable for its bright orange-red blossoms; *Illicium religiosum*, a hardy greenhouse plant with pale green flowers, and somewhat resembling a Spurge Laurel in appearance; *Dendrobium secundum*, with handsome small racemes of purple flowers; a tall plant of the old *Cyrtopodium Andersonii*, in excellent condition; also *Batemannia Colleyi*, *Schomburgkia violacea*, a good specimen of *Cyrtochilum macalatum*, remarkable for its fragrance, an *Amaryllis*, and five pretty plants of *Epacris*, viz., *E. impressa*, *variabilis*, *nivalis*, *attenuata rubra*, and a variety of *impressa*. A Knightian medal was awarded for the first four plants. Mr. Graves, gardener to Mrs. Cannon, sent a bloom of an *Epiphyllum* from Brazil, which was not different from *E. violaceum*. From C. B. Warner, Esq., was *Camarotis purpurea*, an East Indian species, having gracefully drooping racemes of purple blossoms, and a large-flowered variety of *Lycaste Skinneri*, that was imported late last autumn; the bulbs were at first placed in an Orange-house, and were not exposed to the sun until after roots were formed. The plant was then removed to the cool Orchidaceous-house, where it has since been growing; a certificate was awarded for the former. Mr. Plant, gardener to J. H. Schroder, Esq., sent *Vanda cristata*, singular on account of the curious form of its flowers; and *Oncidium bicornutum*, having a fine spike of dingy yellow blossoms; a certificate was awarded for the *Vanda cristata*. From Mr. Jackson, of Kingston, was a large specimen of *Erica Cushiniana*, with small purple blossoms; and *Morina longiflora*, a scarce herbaceous plant, which will grow out of doors, but does better to be kept in a cool frame or in a greenhouse, where, if it is well grown, it produces a stem two feet and a half high, which, when covered with bright crimson blossoms, is rather a striking object. Mr. Crawford, gardener to Mrs. Arabin, sent a cut specimen of *Solandra grandiflora*, a beautiful hothouse shrub, having large showy white bell-shaped flowers. It was introduced from the West Indies a great many years ago, but on account of the difficulty found in blooming it, it is not generally cultivated. From Mr. Doran, gardener to T. Hawes, Esq., was a brace of straight, well-formed Cucumbers, measuring 19 inches in length; a certificate was awarded for them. From the garden of the Society was a collection of plants, comprising *Oncidium ampliatum*, both the small and large variety; they were sent from Guatemala by Mr. Hartweg, and are both one species, but differ in the size of the flowers, the one being much larger than the other. It is one of the many instances in which Orchidaceæ differ in this respect; it seems to be a general disposition among them, for plants of the same species to produce flowers different in size, while in other respects they are not dissimilar. In the same collection were likewise *Dendrobium Heyneanum*, *Epidendrum Stamfordianum*, *Lycaste Cruenta*, *Franciscea Hopeana*, *Euphorbia melanthera*, and three *Cinerarias*, viz., *Fanny Tripet*, *Urania*, and *Unique*; the first had been drained with charcoal, the second had been top-dressed with the same material, and the third, besides being top-dressed with charcoal, received one teaspoonful of Harris's liquid manure in a pint of water, on the 5th of February. With these differences, the plants were treated in every respect the same. The first was the smallest, and the leaves were of a pale yellow green; the second was larger, and the foliage was of a deeper shade; the third, being the one that had received the liquid manure, in addition to the top-dressing of charcoal, was the largest, and the leaves were of a very healthy dark green; but that this results from the use of the liquid manure is not perfectly ascertained. Along with these were cut flowers of *Camellia Colvillii*, *imbricata*, and *Reevesiana*; and also of *Acacia pubescens*, and *Riceana*.

WOODLICE.—Where the pits of stoves, frames, &c., are infested with woodlice, boiling water poured over the bark, soil, leaves, or into crevices, speedily exterminates the race.

ON DESTROYING THE BROWN SCALE.—Euphorbias, Cinnamon, Lemon, Orange-trees, &c., are often pestered with the brown scale. If the plants be sponged or syringed in every part with a strong infusion of chamomile, it will speedily rid them of the pest. Experience enables me to assert it. It is easily done, and does not in the least injure any plant on which it is applied.

FLORA.

ON THE ONE-SHIFT SYSTEM OF POTTING.—Being desirous to realise the benefits of the one-shift system of potting, and to avoid, if possible, the destruction of some delicate kinds of Heaths and a scarlet Epacris I had bought for 63s., it struck me the best plan would be to put inside the large pot a less one, upside down; upon this to place the ball of the plant, the surface of which will be as high as the rim. This keeps the main body of the roots from excessive wet, and the ball will not sink too low in the pot afterwards, and thus be liable to excess of moisture. My plants succeeded admirably, and now are very healthy.

Guildford, March 4, 1844.

A FLOWER GARDENER.

FLORICULTURAL CALENDAR FOR APRIL.

AMARYLLISES, and other liliaceous bulbous plants which have been kept dormant, may now be re-potted, and put into an increased temperature.

ANNUALS, HARDY, such as Clarkias, Nemophilas, Larkspurs, &c.—If the soil be moderately dry, some of the most hardy kinds, to bloom early in the summer, may be sown in warm parts of the country, or situations well protected, but in cold places, not until the end of the month; for if the seeds of many sorts begin to vegetate, and frost operate upon them, they are often destroyed. The best method of sowing the small seeds in patches is to have a quantity of finely sifted soil; spread a portion where desired; after scattering the seeds, sprinkle a little more soil over them, and then press it closely upon the seeds, which will assist them in vegetating properly.

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

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

CAMPANULA PYRAMIDALIS—to have fine pot specimens should be potted, if not before done, and encouraged to grow.

CARNATIONS—at the end of the month, the last year's layers kept in pots or beds during the winter should be planted off into large pots 12 inches wide at the top, 6 at the bottom, and 10 deep. In each pot three plants may be placed triangularly, not planting deeper than to fix them securely. The following compost is most suitable:—Two barrows full of fresh yellow loam, three of well-rotted horse-dung, and half a barrowful of river sand, well mixed; plant in it

without sifting, but breaking very well with the spade, and have a free drainage of rough turf, &c.; place the plants in a sheltered situation out of doors.

CREPERS, and twining greenhouse or hardy plants, should be pruned and regulated before they begin to grow, where growing early attention to training and thinning should be given.

CALCEOLARIA SEED should be sown early in the month, having the finest sifted soil for the surface. Offsets root rapidly now, and should be potted off.

CHRYSANTHEMUMS—sow seed of, and raise in moist heat. Mind the suckers of old plants are not drawn up; admit duly of air. Pot off suckers for next blooming.

COMMELINA TUBERS and *Tigridia* bulbs should now be planted.

CUTTINGS of *Salvias*, *Fuchsias*, *Heliotropes*, *Geraniums*, *Celsias*, *Alonsoas*, *Lotuses*, *Senecios*, &c., where it is desired to plant such out in beds, should be struck in moist heat as early as possible. Young shoots, cut off clean, strike readily. (See kinds of plants suitable, in vol. i. p. 38, and for additional kinds, subsequent vols.) Pot into small pots any struck to give vigour to them to be better suited for turning out in May.

DAHLIAS, if not already put into excitement, should be done as early as possible. Seeds should also be sown, placing them in a hot-bed frame till up. Cuttings be taken off and struck in heat. Pot off struck cuttings.

ACHIMENES, *Gesneria*, *Gloxinia*, and *Tropæolum* bulbs, &c., that have been kept dry during winter, should now be potted, and gently brought forward in heat.

HERBACEOUS perennials, biennials, &c., should now be divided, if required.

HYDRANGEAS.—Cuttings may now be taken off, cutting off the tops of any shoots that have very plump leading buds about one inch below the bud of each cutting. These inserted, each into a small pot, and placed in moist heat, will soon strike root, and will, with future proper treatment, bloom one fine head each, strikingly beautiful. To make them bloom blue, use charcoal (see last Number thereon)

PANSIES divide successfully now, the shoots root freely at the undersides.

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

POLYANTHUSES should now be top-dressed, as directed for *Auriculas*, only the soil need not be so rich. Seed may now be sown; the best method is to raise it in heat, harden gradually, and transplant when large enough. Offsets may be removed, or plants divided, if an increase is desired.

RANUNCULUSES and **ANEMONES** should now be planted, taking care no fresh applied dung is in the soil, nor should the ground to plant in be lightened up more than two inches deep. The soil of the bed should be half a yard deep at the least. The best roots for flowering are such as have the crowns high and firm, with regular placed claws. Another bed, planted a fortnight later, brings them into bloom, so as to assist a florist to select for a show. Protect from excess of rain.

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

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

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

SEEDS of greenhouse and similar plants may now successfully be sown, raised in moist temperature.





1. *Viscaria oculata*. 2. *Veronica speciosa*.

THE
FLORICULTURAL CABINET,

MAY 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

1. VERONICA SPECIOSA. SHOWY SPEEDWELL.

THIS very handsome shrubby Veronica is a native of New Zealand; its native locality is near the mouth of the Hokianga river. It was first received in this country by Mr. Knight, of the King's-road, Chelsea, where we saw a considerable stock of fine plants. In its native country, it grows to a robust shrub, from a yard to two yards high. The plants at Mr. Knight's are about half a yard high, each forming a clean and compact shrub, somewhat in appearance to a vigorous plant of *Lisianthus Russellianus*.

It is considered to be about as hardy as *Clianthus puniceus*, but it has been kept at Mr. Knight's in a cool greenhouse. Plants may also be had at the extensive nursery establishments, as Mr. Low, of Clapton, &c.

It deserves a place in every greenhouse or conservatory, where it would form a very ornamental object, and, being an evergreen, with bold shining green foliage, it looks well even without a flower.

2. VISCARIA OCULATA. DARK EYED.

(SYNONYM *LYCHNIS OCULATA*.)

A native of the north coast of Africa, from whence seeds were recently received by Messrs. Backhouses', Nurserymen, of York. It is a hardy annual, and may be treated in the usual way of such annuals, either sown in pots in autumn, be kept in a cool frame

through winter and planted out entire in spring, or be sown in the open border in February. It continues to bloom during the whole of summer and autumn. It well deserves a place in every flower-border.

Seeds may be obtained of Messrs. Backhouses, and other general seedsmen.

ARTICLE II.

REMARKS ON THE TANK SYSTEM OF HEATING,

BY C. C., OF SOMERSET.

IN accordance with my promise, I now forward some observations on the tank system of heating, the result of experience which has recently occurred.

I noticed some remarks made, in the March *CABINET*, by a person who signs himself a Practical Man, on this mode of heating, and in some respects I agree with his opinions; but I beg to state, that every intelligent person knows, whatever plan of heating is adopted for the growth of exotics, if it be not properly managed it must certainly fail. I can assure the readers of the *CABINET*, that where the tank is properly constructed, &c., the result will be most satisfactory. My experience enables me, with the utmost confidence, to offer the following particulars to their notice.

The bottom of the tank should be supported on arches or pillars, and not be upon an entire solid mass, the water retains and distributes its heat more constant and copious, also with less expense in fuel, than it would if on an entire solid base.

It is also beneficial to have a fire flue constructed along the front of the house, so that, if required, any excess of moisture might be dried up, whilst a due temperature too could thus be afforded to any desired extent. A house provided with the means of heating thus specified, could be heated to a very high temperature in a short space of time, and the heat be easily and regularly retained. Such a house would be, as far as its heating the area is concerned, all that could be desired for the growth of Orchideous plants, and in fact all moist hothouse ones. I advise the use of Stevenson's boiler, it not only requires a very small portion of fuel but is very effectual in every other point.

In supplying bottom heat to a pit, in which plants, cuttings, &c.,

are plunged or grown, the tank of course must be placed level, and the upper part be covered with bricks, leaving passages about two inches wide leading to the front and back of the bed. Tubes must also be placed through the soil, so as to allow the heat to be conveyed from the chamber beneath to above the surface of the earth, or other material. When the arches or pillars upon which the bottom of the tank, if it be of copper or other metal, is to be placed, are built, spread a layer of slates extending the length of the tank, upon which spread a thin layer of sand in order to have the tank laid perfectly level. If the tank be formed of slates or similar material, the layer of sand will not be required. It is advisable to have a fire-flue constructed along the front of the chamber, so that when dry heat is required, it could be made available. A few open places should be left along the front of the bed to allow it to pass from beneath to the space above. In order to form a basis for the earth, or other material, it can easily be done with slates; upon them place a layer of good coal-ashes mortar, and on it spread brick-bats, not broken into small fragments, but as such usually are to be had at the brick-yard, about four inches deep; over these lay some spray sticks, in order to prevent the soil, &c., from running down amongst the broken bricks.

I have seen several pits constructed in this manner, in which Pine and other plants were grown in the greatest luxuriance. There is not an excess of moisture in the soil, &c., neither in the surface temperature, but it is in a perfectly congenial state. Another valuable point is provided for, the temperature is always so readily at command.

ARTICLE III.

REMARKS ON VERANDAHS, FOR PLANTS, &c.

BY FLORA.

I AM of opinion that, for cottage or villa residences, no species of greenhouse, so far as convenience is concerned, has more advantages than a structure in the verandah fashion, that is, a covered projection, having a glazed front, and the roof wholly or in part of the same material. I have noticed several which have very recently been erected in the environs of London. Such a structure may be placed against the front or one or more ends of the dwelling-house, the principal windows opening into it in the French manner, and the

plants will require to be selected, and their arrangement made subordinate to the circumstances of the case.

Such an erection will answer the purpose of an agreeable lounge or promenade, which cannot fail to render them very desirable to the valetudinarian at all seasons, and to the young and active in times of rain and bad weather: it will also serve as a repository for exotic flowering plants; and if some taste be displayed in the management and arrangement of them, they will produce a very pleasing effect. In the disposal of plants in such houses, we would direct particular attention to be paid to a judicious selection of choice free-flowering climbers, to be planted in spaces prepared for them under the floor, and to be trained up the front pilasters and under the rafters of the roof. The spaces for these plants need not be more than chambers, formed of about two feet by three, and eighteen inches deep, filled with good peat and loam, in which most plants of this description will grow freely. A space of a semi-circular form should be left in the pavement to receive the plant, and also to supply water to it; this space need not be larger than about nine inches in length by six in its greatest breadth; and the opening should have a neat ornamental iron guard placed round it, about four inches in height, to prevent the stem of the plant from being injured or broken.

Presuming that the floor is paved, elegant stages or flower stands should be tastefully arranged, and rendered portable by being mounted upon castors; but their arrangement and position may be altered, at the pleasure of the proprietor, so as to bring the plants into the light and shade, as their habits and other circumstances may require. On these stages or stands the smaller plants are to be placed.

Large and fine specimens should be placed in vases, which of themselves are ornaments for such a situation, if tastefully chosen. These vases are manufactured by Mr. Austin, of the New Road, London, at his artificial stone manufactory, and are both cheap and durable.

In structures of this kind, strict attention to the architectural style of the dwelling should be by no means disregarded. It would be incongruous and absurd to see a Doric, Corinthian, or Gothic building, to which a verandah or greenhouse of any other order were appended, yet such instances of bad taste are often seen. Architectural decoration, however, must not be carried too far, particularly

where it has the effect of excluding the light. There can, however, be no objection to the pilasters between the front sashes being so constructed as to show the style of architecture to which they belong. In regard to the dimensions of such houses, they should, under few circumstances, be of less length than that of the front of the house against which they are placed, and indeed of which they may be said to form a part: their height and width must always be governed by circumstances. If a sloping roof be adopted, it cannot be higher than the sill of the windows of the rooms immediately above it; the width then must be contracted to allow of sufficient fall for the water to run off, as the front or upright sashes should not be less than eight feet in height. To obviate this difficulty, and to increase the width, a curvilinear, or span roof, may be adopted, the centre or ridge of which may be, without objection, a foot or two above the level of the sill of the first-floor windows, because it will be sufficiently distant to prevent the view from being interrupted, or the rooms from being darkened.

Such structures are, however, better adapted for the display of flowering plants and fine specimens already grown to perfection, than for the more delicate process of rearing them from seeds, cuttings, &c. Such a house as I am now alluding to should present at all times a perfect whole. The very changing of the plants, when going out of flower, or the introduction of such as are coming into bloom, should be conducted early in the morning, or when the family is from home, or gone out, so that no appearance of disorder or confusion may be observed. Of course, in this case, I allude to families of distinction and fashion. The more humble, yet no less zealous amateur, may take delight in conducting these arrangements personally, and derive as much pleasure from the contemplation of his own handiwork as his more opulent and luxurious neighbour in viewing that which is prepared for him.

To maintain a regular supply for a house of this description, when it is intended to be kept in the first degree of elegance and perfection, it will be necessary to have recourse elsewhere, and this can easily be accomplished, either by purchasing from the nurserymen, or by growing plants in a pit or greenhouse, in the same garden. There are certain plants that may be kept in the verandah at all periods, and indeed they form one of the principal features in this style of greenhouse, namely, Camellias, Oranges, Pittisporums, Magnolias,

Rhododendrons, large and grotesque specimens of succulent plants, &c. ; and these, with a judicious selection of fine-flowering climbing plants, must always constitute the chief furniture of such a structure. The minor decorations may consist of Geraniums, Heliotropeums, Fuchsias, Roses, Calceolarias, the harder and free-flowering *Ericæ*, and other fine-flowering plants that are to be brought in, in succession, so as to keep the verandah at all time in a full-flowering state.

With the addition of a small brick pit of six or eight lights in length, having a flue in it to exclude frost, and divided in the middle, so that one end may be kept rather warmer than the other, all the plants above enumerated, and many more, may be grown in great perfection, so as to be brought in while in flower to decorate the verandah, and at little trouble or expense, and within the means of almost every person who occupies a house in the villa or cottage style.

It would be useless to attempt to give directions that would be generally applicable to all houses of this sort ; suffice it to say, that after having disposed of the large specimens of plants, so as to produce the most pleasing effect in the mind of the owner, the smaller ones may be tastefully arranged on pedestals, ornamental flower baskets, and in a variety of ways that would give effect to the whole. It should, however, be observed, that the nearer to the light and glass that all small-leaved plants are placed the better : the thicker and larger-leaved plants, such as Oranges, Camellias, Hydrangeas, &c., and most succulent plants, excepting the genus *Mesembryanthemum*, may be placed at a greater distance from the light.

In regard to heating the verandah, it should be by means of flues or hot-water pipes, placed under the level of the floor, the heat ascending from them into the house through ornamental metallic plates, let into the pavement immediately over them, or, as the object is to repel frost only during the winter, an elegant German stove may be placed near one end, having its smoke-conducting pipes stretching out towards the other extremity. The whole expense of such a stove for a small house would not exceed five or ten pounds, and it may be used for many purposes when not in use in the verandah, which will in few seasons be longer than from the beginning of December to the middle or end of February.

Great caution ought to be observed to prevent such stoves from becoming too hot, and also that they be placed sufficiently distant

from the plants. A novel and economical method of heating such houses, and, indeed, most small greenhouses, would be to place on the top of a German stove a small boiler, placed in the centre of the house, and having the stove so constructed as to allow the smoke to escape under the floor, as is the usual manner in similar stoves used for heating halls, lobbies, &c. From this boiler a pipe should branch off from the right hand, and another from the left, and be carried to any required distance, where they should make a turn, and again enter the boiler. Such an apparatus, being portable, could be removed when not required, and used for a variety of domestic purposes, particularly in a laundry for drying linen, or a harness room for repelling damp, and a variety of other purposes that the ingenuity of the proprietor might suggest.

Verandahs, like greenhouses, conservatories, &c., may be conveniently heated, if placed over cellars or other underground apartments, by having a regular hot-water boiler placed in them, with a conducting pipe rising from its top (which of course must be a fixed one), which would conduct the hot water into a horizontal pipe, placed in a cavity under the floor, and extending to the end of the house, and either made to return under itself or to make the circuit of the house, and again re-enter the boiler near its bottom. It is of no consequence how deep the cellar may be, or how high above it the house to be heated may be placed. However, that as little waste of caloric as possible may take place, we should recommend the perpendicular pipe to be covered with coarse canvass or sacking, or any other non-conducting substance.

Neither is it essentially necessary that the boiler be placed directly under the verandah, &c., for if the pipes be covered as above, or enclosed in a wooden case and packed in saw-dust, they may be carried a considerable distance in a slanting or even horizontal position, so long as they are kept above the level of the boiler.

I have seen many dwelling houses heated by means of hot water, the boiler, &c., being placed in the cellar, or in a chamber constructed on purpose, a niche in the side of a passage, or other more convenient place; when such is the case, a branch pipe is readily conducted to the verandah, and the supply of hot water cut off or let on by means of Kewley's water-cock, as may be required.

ARTICLE IV.

REMARKS ON POLYANTHUSES.

BY MR. GEORGE HUDSON.

REPLYING to the inquiries of Mr. W. Harrison, of Felton Bridge, in your last number, respecting my seedling Polyanthuses, I beg to observe that I entirely coincide in his observations as to the room for improvement in this class of flowers.

I shall not presume to assert that any of my seedlings possess *all* the qualifications laid down as constituting perfection, although I am convinced they are decidedly in advance of many sorts generally cultivated and competing successfully at different exhibitions.

I have at various times raised exceedingly promising seedlings, but (with the exception of what I am now sending out) I have been unfortunate with them; my garden being situated in a warm aspect, the heat during the summer months has generally destroyed them; I am in hopes, however, of guarding against similar failures for the future.

In sending out the present lot I determined upon fixing such a price as might place them within the reach of florists generally, and also give satisfaction, which I feel pretty confident they will do.

Not being a member of any society where a spring show is held, I have never staged them for competition; but they have been inspected by several Nottinghamshire florists, who pronounced favourably on their merits,—Negro Boy, in particular, has received general commendation. In compliance with Mr. H.'s request, I add a brief description of each.

Kegworth, Leicestershire, December 18, 1843.

NEGRO BOY.—Very dark ground colour, laced with a rich deep yellow; the thrums well up in the tube, and rises full in the centre, in the style of Pearson's Alexander, but a much more constant lacer.

LADY LINCOLN.—I raised this variety from Hufton's Lord Lincoln, which it resembles in colour, but attains a greater size and is a much better grower. It will be a decided acquisition to the dark-grounded class.

LADY GREY.—A dark ground, in the style of Hufton's Earl Grey, from which I have no doubt it was raised. Is a true lacer, good form, and an excellent grower.

RED ROVER.—Is a red ground, of good shape, and different in character from any other that I am acquainted with. It is not so constant in its lacing as the preceding sorts, but a desirable variety to cultivate.

ARTICLE V.

ON INCREASING PLANTS OF THE CACTUS TRIBE.

BY AN ARDENT AMATEUR GROWER, OF STOCKWELL, NEAR LONDON.

THE art of propagating Cactæ has made such rapid progress in modern times, that sorts of which there had only been single specimens in few collections for many years, are now propagated, and will soon be obtainable by amateurs; but, as the best modes of increase are not generally known, I transmit the following particulars for insertion in the FLORICULTURAL CABINET, to extend the knowledge to all admirers of this interesting tribe. The Melocactuses only cannot be subjected to the common rule, and are almost always propagated by seed, whereby it sometimes happens that degenerations take place. All other Cactæ may be cut in two, at the proper season, without danger; and, when potted with care, it is generally the case that the cut-off piece forms a better specimen than the mutilated one was. Mammillarias and Echinocactuses, scarcely the size of a walnut, are fit for making cuttings, and grow with more ease and certainty at this time. In the same way, even the oldest plants succeed; for example, Cereuses, with an axis of wood from one to two inches in diameter; in short, it is a generally practicable proceeding, and yet requires some care. Echinocactuses and Cereuses shoot out generally from the knots, where the spines are; Mammillarias, on the contrary, shoot from between the teats, sometimes out of the teats themselves. These shoots may be taken off very soon; and, the smaller they are, the sooner they will be found to root. The same way of propagating may be adopted for Lepismiums, Rhipsalises, and Pereskias. Epiphyllums, Hariolas, and Opuntias are easily propagated by separating and taking off one or two articulations in the joints.

Each part of a Cactus intended to form a new plant, whether it be a cut-off head or a taken-off shoot, must, according to the different state of the weather, lie from one to eight days exposed, if possible, to the sun, to dry the cut completely. I never found it necessary to

powder with coal-powder or brickdust, and but very seldom lost a cutting or taken-off head, except when the weather, immediately after cutting, became dull and wet for a long time. I even cannot believe that the striking of the cuttings will be advanced by plunging the pots into a hot-pit; on the contrary, the surest method appears to me to be to expose the newly-potted cuttings to a most concentrated sun-heat, by placing them under a sloping light of the greenhouse; and it does no harm, although the pots get so hot that they can scarcely be touched.

When the cuttings are duly dry, they must be potted into as small pots as possible, and the same cautions I mentioned when speaking of re-potting well observed. Some put cuttings into somewhat moist soil, and let them stand for a fortnight without watering; but I always plunge the pots of my cuttings, immediately after potting, once into water, and keep them in it till they are completely saturated; after which I let them stand for twenty-four hours in the shade. I then bring them to the sun, not watering at all till all the mould is completely dry. Which of these methods is the better I do not know; the first may, perhaps, be the surest in doubtful weather and an advanced season; but the latter, at all events, will lead soonest to the purpose. Besides, I have tried, as an experiment, to take cuttings of several *Cactææ* last winter. I potted them about Christmas; and, after a good plunging into water, placed the pots upon a heated stove, where they soon got dry, and, by a good daily supply of water, began to strike roots in the course of about a week.

It is of great importance for imported *Cactææ*, to cut off all the roots, though healthy and strong-looking, and to clear off whatever is withered and soft about the plant itself, and cannot be loosened with the fingers, with a sharp knife, without bruising. They must then be left lying for some time, and the cut exposed as much as possible to the sun. When these precautionary measures are not taken, the plant will get rotten from below, and must be put into greater danger, by cutting into the healthy flesh, than it can incur when put into the soil with a dry and healed-up stump; and, although it may happen that no rotting takes place, it is sometimes the case that the plants will stand for several years without growing in the least, it being more difficult for young roots to shoot out from the remaining portions of the old roots than out of the body of the plant itself.

To graft Cactæ is not very difficult; and, though it may appear a mere play, it is not quite that, as there are many sorts of this kind of plants which may be more easily flowered by this method than by any other; and if we continue these experiments, we may, perhaps, obtain many new flowers. I succeed best in grafting joints of *Epiphyllum truncatum*, *E. Altensteinii*, or even *Cereus phyllanthoides*, upon the stem of *Opuntia brasiliensis*, the top of which has been cut off; and I get, by such means, plants of surprising beauty, which distinguish themselves by their luxuriant growth and profusion of flowers. Even slender branches of several *Cereuses* will grow easily upon fleshy *Opuntias*, and the process itself is quite a simple one. Take the cutting off somewhat pointed on the lower end, and shove it, freshly cut, into the cut or hole of the plant upon which it is to be grafted, and wind a woollen thread not too firmly round it; or, if that should not be easily managed, I close the place by plastering grafting-wax over it. When it succeeds, so close a union soon takes place that the graft seems to be a part of the plant itself. The growing of the graft, however, is no proof of the success of the operation, for it often happens that, notwithstanding its growth, no such joining has taken place; and the consequence is that, sooner or later, the graft withers, though sometimes not before one or two years.

The propagation of Cactæ by seed is, for many sorts, of great value; and, whenever I have seed, I am pretty sure to succeed. I annually get ripe seed in abundance, of a great many sorts, without the least trouble; as of *Mammillaria pusilla* and *simplex*, *Echinocactus Ottonis*, *Cereus flagelliformis*, and a great many of the *Opuntias*. But these, unfortunately, are sorts which, to grow slowly from seed, are of but little or no interest, because we can get them much faster by cuttings. Seeds of some sorts can only be got but by a careful and artificial impregnation. For this purpose, I take the pollen from a completely unfolded flower with a soft and clean camel-hair brush, and brush it, without force, either upon the stigma of the same flower, or, when it is wished to produce hybrids, upon that of another sort. By these means I get fruits with ripe seeds fit for sowing. Besides, I am sometimes so lucky as to find ripe fruits on newly-imported specimens; and it is of great consequence that persons who get such plants from their native countries should carefully examine the living ones of new forms, as well as those that happen to

be dead, to see whether they can find any seed on or about them. It has already happened that some unique specimens in Europe have been saved by carefully collecting and sowing both the remainders of the plants and the dust and dregs of the box.

For sowing, small pots are used, filled with a loose sandy mould, watered previously to sowing. The seed is then strewed over the surface, and either sparingly covered, or not, with some very fine mould or sand; then covered with a pane of glass, and placed either in a hot frame, or below a sloping light in a warm situation. Cactus seeds retain their vitality for several years, and spring generally in about ten or fourteen days after sowing. As soon as the young plants appear, they must be secured against too burning heat of the sun, and potted as soon as possible, either singly or from three to four together, in very small pots. The most dangerous enemies to them are the woodlice, which are very partial to the young and tender plants. In their haunts I have poured boiling water; this speedily exterminates the race. When red spider attacks, a sprinkling of common sulphur settles with them; and, when the brown scale infests them, a sprinkling over with a strong infusion of chamomile destroys them.

ARTICLE VI.

REMARKS ON THE DISTINGUISHING PECULIARITIES OF THE VARIOUS CLASSES OF ROSES, &c.

BY ROSA.

ROSA DAMASCENA, 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 rough spiny shoots and leaves; the capsules, or seed-vessels, are mostly very rough or spiny, and the flowers are very sweet.

ROSA CENTIFOLIA MUSCOSA, 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; blooms once in the season. They require a light rich soil when grown on their own roots, in cold soils worked on the Dog Rose, and close pruning.

**ROSA CENTIFOLIA, PROVENCE, OR CABBAGE, of the English, CENT-
FEUILLES (100 leaves) of the French.**—The term one hundred-leaved 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. In light soils they grow best when on their own roots, but in strong clayey soils they do best when worked on the Dog Rose. They require close cutting in when pruned, even to three or four buds, and early in winter a good top-dressing of rotten manure.

PORTLAND, OR PERPETUALS, and HYBRIDS of PERPETUALS, called BOURBONS.—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 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. Most of them are very fragrant. By attention to pruning in November, and again early in June, cutting back one-half of the shoots which have pushed, they can be made to bloom from June to the end of the season. Perpetual Roses require an abundance of food, and an application to the surface of well-rotted dung, just covered with the soil, every autumn, is essential to success. The Hybrid Bourbons, or Hybrid Perpetuals, partake of the hardiness and fragrance of the Damask rose, blooming very abundantly in Autumn.

ROSA ALBA, 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, and is compact in growth. They always bloom abundantly, and require close pruning.

ROSA GALLICA, the FRENCH ROSE.—This section contains most of our old garden Roses; they are robust and hardy, stiff and erect growers; their compact growth recommends them as very suitable for dwarf standards. The flowers are mostly very full and finely formed, and contain many beautiful striped and spotted ones. The flowers of this section are very regular in formation, and it is very likely that it will be the favourite of florists who show for prizes in the manner Dahlias are now exhibited. To have the flowers large, the buds should be thinned early in June, manure be laid over the surface and sprinkled over with soil, and if watered in dry summers with manure water it very much invigorates them.

ROSA BOURBONIANA, the *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 *Gallicas*. They are free and continual bloomers, bright colours, fine form, deep green foliage, free growers, though close and compact. Some of them are fine as climbers. They seem to do well in any soil of a moderate quality. The flowers have a delicious fragrance, particularly in the autumn; they ought to have a place in every autumnal Rose garden, whether as standards, dwarfs, or pillars, and in all will certainly please. They do not require much pruning, but at the end of March to have the shoots thinned, and to cut back those left to about five buds. Dwarf standards grown in pots, and supplied with manure water in summer, taken into a greenhouse or conservatory in autumn, will bloom beautifully till December, and sometimes even through winter.

ROSA INDICA, the *CHINA ROSE*.—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. These roses are well adapted for pots, or small borders, or to train low against a wall. They bloom for a long season, and very freely, some being fragrant too. Most of them are quite hardy.

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 pendent branches. They grow well in all soils and situations, and require the branches to be thinned out in March. They bloom from June to November.

HYBRID CHINA ROSES.—This section has been originated be-

tween 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. They do well as standards, forming fine heads. They require to have a free supply of manure over the surface of the roots both in autumn and spring, and be kept moist when in bloom; a covering of manure tends to that; in summer a covering of moss over the dung conceals it from sight. They are well adapted for rose beds on lawns, or as dwarf standards, and some of the strongest growing kinds as pillars. They bloom abundantly, and require close cutting in when pruned.

CLIMBING ROSES. The **AYRSHIRE**.—It is considered by the most eminent rose fanciers that this tribe had its origin from the *Rosa arvensis*, the common rose of our English hedges, and has acquired much additional vigour from the accidental impregnation. Shoots of the single and semi-double white on some occasions grow in one season from twenty to thirty feet long. They make fine pendant heads when grown as standards. They are well adapted to train up the stems of trees; and to form undergrowth amongst trees, or cover a bank, they are admirable, as one plant will soon cover a space of fifty square yards.

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. The plants are of the easiest culture, flourishing in any good soil, they are valuable for covering fences, walls, stems of trees, as pillars or as standards, form a pretty object, also for spreading over a bank, &c., and being nearly evergreen, increases their utility and beauty. They are excellent for training as festoons. They should be pruned at the end of February, and then only just shortening the ends of the shoots left; a portion should be cut out if the shoots are very numerous. To cut those retained very far down would induce but few new shoots to push, and they be so vigorous as to grow to a great extent and usually such produce no bloom. Each autumn a supply of manure to the surface should be pointed in.

ROSA ALPINA. 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. They require but little pruning.

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. The class is rather tender, and requires in this country to be trained against a wall, or otherwise to be protected. In warm countries some of the class will form pillars thirty feet in height. They require but little pruning, and that to be done in March. If cut in short, they make strong shoots, which rarely bloom.

ROSA BANKSIA. The **BANKSIAN ROSE**.—This class is tender, require a wall, and a warm and dry situation, and where the flowers, which are produced early in spring, can be screened. They require to retain all the small twiggy shoots, and the luxuriant to be cut away in autumn.

ROSA LUTEA. 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. The plants require a moist soil and dry pure air, with a moderate supply of manure, also but little pruning, they bloom very freely. The fine and brilliant yellow of some render them very showy.

ROSA SULPHUREA. The **DOUBLE YELLOW ROSE**.—It requires a warm situation, rich soil, and a free and airy exposure. At Genoa and Florence it blooms vigorously, under such circumstances, in vast profusion.

ROSA INDICA ODORATA. The **TEA-SCENTED CHINESE ROSE**.—The original plant was sent from China. The seed vessel is large, leaves large, and shining flowers globular and fragrant. The roses of this class are tender, requiring a dry situation, a raised bed, rich loamy soil, and to be in a sheltered place. The best method is to raise a succession of plants every year, as they strike so freely from young slips inserted in white sand, and having one year old plants in pots turn them into the open ground in April, such will make a fine display through the summer.

(To be continued, with a Descriptive List of ten of the best of each class.)

PART II.

LIST OF NEW AND RARE PLANTS.

CATTLEYA SUPERBA. THE SUPERB. (Bot. Mag. 4083.) Orchidaceæ. Gynandria Monandria. (Synonym *C. Schomburgkii*.) Discovered by Mr. Schomburgk in British Guiana, and forwarded to Messrs. Loddiges's, with whom it has bloomed. Sepals and petals of a pretty rosy-lilac colour. Labellum of a deep purple-red, somewhat paler at the edges. The peduncle of flowers contains four or five in each. A separate blossom is about four inches across. They are most powerfully fragrant morning and evening. It well merits a place in every Orchidæ house.

CLERODENDRON INFORTUNATUM. UNLUCKY CLERODENDRON.—(Bot. Reg. 19.) Verbenaceæ. Didynamia Angiospermia. This beautiful hot-house shrubby plant is a native of Ceylon, and is now in the collection at Sion Gardens, where it has bloomed, and is a most splendid flowering species. The flowers are produced in large paniced heads, of a fine orange-scarlet colour. It well deserves a place in a hot-house collection. There is another species named *fortunatum*, which is used beneficially in medicine, while the present species, *C. infortunatum*, is dangerous, on which account the specific name has been given to it.

ERIA FLORIBUNDA. MANY-FLOWERED. (Bot. Reg. 20.) Orchidaceæ. Gynandria Monandria. A native of Sincapore, from whence it was imported by Messrs. Loddiges's. The flowers are produced on small drooping racemes, about three inches long. Each blossom is near half an inch across, white, having the petals slightly tipped with rose.

EPIDENDRUM VITELINUM. YOLK OF EGG COLOURED. (Pax. Mag. Bot.) Orchidaceæ. Gynandria Monandria. A native of Mexico, sent from thence to Messrs. Loddiges's, with whom it has bloomed. The flowers are produced in erect terminal racemes of from 12 to 20 in each. A separate blossom is near three inches across, of a beautiful scarlet-orange colour, displaying a superb appearance.

ILEX PLATYPHYLLA. BROAD-LEAVED CANARIAN HOLLY. A plant of which is in the greenhouse at the Royal Gardens of Kew. It is peculiar to the Canary Islands, and forms a very beautiful, small, evergreen tree. The flowers are white, in cymes, numerous, produced. We have seen it grow very freely in the open air of this country, and it proves quite hardy.

LINUM TRIGYNUM. THREE-STYLED FLAX. (Pax. Mag. Bot.) Linaceæ. Pentandria Pentagynia. It was introduced into this country from the East Indies many years ago, and is treated now as a greenhouse plant. It is a very abundant bloomer, and a highly ornamental one when in flower. If it be grown in a hot-house it blooms from December to April. If in a greenhouse it blooms from May to the end of summer. It is a suffruticose (somewhat shrubby) shrub, growing about two feet high. The flowers are produced in terminal as well as lateral spikes. Each blossom is about two inches and a half across, of a rich orange-yellow colour. It deserves to be in every collection, and may be procured cheap.

NERIUM OLEANDER. VAR. TANGLE. STRIPED-FLOWERED. (Pax. Mag. Bot.) Apocynaceæ. Pentandria Monogynia. This very pretty flowering plant is supposed to be of continental origin. The flowers are semi-double, produced in large clustered heads, each blossom being two inches and a half across, of a deep crimson, striped with white and pink. The plant blooms when about nine inches high. It deserves to be in every greenhouse.

PHILOMIS CASHMIRIANA. CASHMERE PHILOMIS. (Bot. Reg. 22.) Labiatae. Didynamia Gymnospermia. It is from the valley of Cashmere, a hardy perennial, growing about two feet high, blooming from June to September. The flowers are produced in whorls, which form long spikes; they are of a pretty lilac colour.

PHAJUS BICOLOR. TWO-COLOURED. (Bot. Mag. 4078.) Orchidaceæ. *Gynandria Monandria*. A native of Ceylon, which has bloomed in the collection of Dillwyn Llewellyn, Esq., at Penlegare. The flowers are produced so as to form a spike about two feet long. Each blossom is near four inches across. The sepals and petals are of a pale yellow-brown outside, and of a deep chocolate-brown, striated, inside. Labellum, the cucullate, or tubular portion yellow; the limb is three-lobed, the middle one of a yellowish-white, the side ones rose colour. It is a noble flowering species, well deserving cultivation.

SCHOMBURGKIA CRISPA. CRISP-FLOWERED. (Bot. Reg. 23.) Orchidaceæ. *Gynandria Monandria*. It has bloomed in the beautiful collection of Mrs. Marryatt, of Wimbledon. The flowers are produced in a terminal short raceme, of ten or twelve in each. A separate flower is about an inch and a half across. The sepals and petals are of a reddish-brown, edged with yellow, which are curled or crumpled. The Labellum is white, with a streak of pink, and edged with sulphur.

TROCHETIA GRANDIFLORA. LARGE-FLOWERED. (Bot. Reg. 21.) Byttneriaceæ. *Monadelphia Polyandria*. Sent from the Mauritius to the collection at Sion Gardens, where it has bloomed. The plant is a seedling, about six feet high. The flowers are produced in a pendulous cluster, three or four in each. A separate blossom is about three inches across and one deep, white, with a yellow blotch at the base of each petal.

NEMATANTHUS CHLORONEMA. SHORTER-FLOWER-STALKED. (Bot. Mag. 4030.) Gesneriaceæ. *Didynamia Angiospermia*. Found in the Organ Mountains, and has been sent to the Glasgow Botanic Garden, where, in the stove, it has bloomed. The flowers proceed from the axils of the leaves two or three at each. The footstalk is about two inches long, and the flower funnel-bell shaped, near two inches long, of a rich crimson-red colour. The plant deserves a place in every plant stove.

GONGORA MACULATA, VAR. TRICOLOR. Rev. J. Clowes, of Broughton-hall, near Manchester, received it with information that it came from Peru. It is a most beautiful flowering variety. The ground colour of the flower, except the lip, is a clear yellow; the column and petals are delicately banded with rich sienna-brown, and a few striking blotches of the same colour on the sepals. The lip is white, with a cinnamon-coloured stain on the ends and the sides of the tubercles.

ANGULOEA CLOWESII. A genuine species of this plant has at length been obtained by Rev. J. Clowes, from the Columbian collections. It is a noble plant. Each blossom is four inches in diameter, of a fine lemon colour, having a pure white lip.

MILTONIA CUNEATA. Flowers four inches across. Sepals and petals a rich brown, tipped with green. Lip pure white. It has recently flowered at Messrs. Rollisson's.

ONCIDIUM PAPILIO. There are several varieties of this singular Butterfly flower. Messrs. Rollisson's possess one very much superior to any other we have noticed. The colours are much deeper and very distinct; in contrast with the older varieties this is much superior.

SCHOMBURGKIA UNDULATA. In Mrs. Lawrence's collection at Ealing Park, and at Mr. Rucker's. It very much resembles the *S. crispa* in general features. (see description above) but the flowers are much larger and of deeper colours; the lip has a pretty purple-violet upon it.

—
At Mr. Low's, of Clapton, Nursery.

CAMELLIA SACCOI.—The flowers are of a beautiful pink, slightly and handsomely spotted with deeper coloured spots. The flower is double, the petals very perfectly arranged, round, and thick in substance. It is of first-rate merit, and well deserves to be in every collection. Mr. Low obtained it, along with others, from the Continent. We have not seen it in any other of the London collections, but, if we mistake not, Mr. Low has plants of it for sale.

BRACHYSEMA VENOSA.—A new species, which has not bloomed there yet. It is a pretty looking plant for the greenhouse.

XYLOBIUM ACUTUM.—Very much in the way of *Chorozema Dicksoni*, when it is in bloom, and well deserves a place in the greenhouse.

TACSONDIUM SEMPERVIRENS.—It is a cypress-like looking plant. It is supposed to be hardy, and an interesting addition for the shrubbery.

TACSONDIUM PINNATUM.—Of a similar character to the above.

MAGNOLIA HARTWIGUS.—Is an hybrid, between *M. Exmouthea* and *M. Fuscata*. It is a hardy evergreen, very highly spoken of. It has not yet bloomed here.

STEPHANOTUS THOUARSI.—It has not yet bloomed here. The foliage is narrower than *S. Floribundus*, and more pointed. We understand that, like the last-named, it is a handsome species.

STATICE PLATYPHYLLA.—A large broad-leaved species. The flowers are of a deep blue and white, similar in character to *Arborea*, but the contrast of blue and white is much more distinct than any other sort we have seen.

ENKIANTHUS QUINQUEFLORA.—The flowers are similar in character to the other species, but of a pretty flesh colour.

SIPHOCAMPYLUS PARTHONI MAJOR.—This new kind has not yet bloomed here.

TIBBAUMIA.—New species. The plant is of the *Arbutus* tribe, very neat in its appearance. The flowers are of a similar character in form, but of a scarlet colour.

BILBERGIA ACAULIS, VAR. *ZEBRINA*.—The foliage is in form like a short stiff pine-apple plant. It is handsomely streaked across with mealy streaks, which give it a singularly neat appearance.

FRANCISIA HYDRANGEIFORMIS.—A fine looking plant. The flowers, we are informed, are produced in large heads, similar to the common *Hydrangea*, of a blue and white colour. They are, too, as fragrant as those of *F. Hopeana*.

GARDENIA CHERBOUNI.—The flower is something like an *Enothera* in appearance, white with a pink spot; very sweet. It is a very pretty addition to this charming family.

FRANCISIA VILLOSA.—Very like *F. latifolia*. The flowers of a light blue colour; very pretty.

EUPHRASIA CUNEATA.—A trailing plant, very much like trailing *Lobelia*. The flowers are blue.

ARDISIA MEXICANA.—The leaf is large and noble in appearance, very like a fine *Magnolia* leaf. It has not yet bloomed.

MACLAINEA INSIGNIS.—The flowers are produced in clustered branching racemes, much like *Andromeda floribunda*, and are scarlet. It is highly spoken of.

LIANANTHUS NIGRESCENS.—The flowers are, in form, like a *Lisianthus Russellianus*, and nearly black. Each blossom about an inch long.

RHODODENDRON FERRUGINEUM ALBUM.—The white-flowered variety of this neat bush is also in the collection here; it deserves a place in every peat border or bed.

At Mr. Knight's, King's-road, Chelsea.

EPACRIS CAMPANULATA ALBA.—Several plants of this beautiful *Epacris* were in profuse bloom in the greenhouse. The snowy white waxy-looking bell-shaped flowers render it deserving a place in every greenhouse. It is sold cheap.

EPACRIS VARIABILIS.—A very distinct and neat variety. The flowers are bell-shaped, and of a beautiful pink.

EPACRIS RUBRA.—This is also a very distinct variety. The flowers are bell-shaped; pink, with the ends of the blossoms bright red. Each of these *Epacris* are very ornamental, and particularly so being early bloomers, and continuing in bloom for several months.

PLANTS SEEN AT THE LONDON HORTICULTURAL SOCIETY'S GARDEN.

KENNEDYA MARRYATTI.—In the conservatory is planted to train up inside the curvilinear roof. When it had reached about nine feet high, having numerous lateral branches, the leading shoots were divided to turn, in equal portions, one

to the right and the other to the left, and have extended about four feet on each side. The plant was almost one mass of bloom, the showy rich red flowers producing a brilliant appearance. We never saw, elsewhere, anything near so well cultivated a specimen as this, or so well managed. It deserves a place wherever it can be grown.

VERONICA SPECIOSA (figured in our present number).—A fine specimen of it, being five feet high, which blooms profusely, growing in the border in the conservatory.

CLIANTHUS PUNICEUS.—A dense bush, twelve feet high, with, apparently, several thousands of flowers. A very striking specimen.

PODALYRIA STYRACIFOLIA.—A most beautiful specimen; the tree-like plant, being twelve feet high, having numerous long branches, all of which were actually laden with blossoms. They are of the pea-shaped class, large, of a lively lilac colour, becoming paler towards the base of the petals, so as to be nearly white. The plant deserves a place in every conservatory.

BORONIA ANEMONIFOLIA.—A fine plant, literally one mass of bloom. We have seen numerous specimens in other places, but this very far surpasses in profuse bloom any others we have seen. It was grown in sandy peat, and had not been allowed to grow too vigorously.

ERICA LONGIFLORA SPLENDIDISSIMA.—The blossoms are of a rich rose colour, very pretty.

LUCULIA GRATISSIMA.—A handsome plant, is growing in the border of the conservatory. It is now ascertained that the plant blooms much more freely when it is grafted on the stem of *Burchellia Cavensis*. It readily unites, and is the best mode of increasing this truly splendid flowering plant.

ACHIMENES PICTA.—This new and beautiful species was in profuse bloom. The flowers are much in the way of *A. pedunculata*, but expands more at the mouth, and the limbs are larger. The upper half of the flower, dividing it lengthwise down, is of a rich red, and the lower half yellow, streaked and spotted with rich red. The plants were about a foot high, and in profuse bloom. The foliage is hairy, green freckled, and marked with a lighter colour, very distinct and pretty. The plant was growing in the stove.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON COW-DUNG FOR RHODODENDRONS.—Is cow-dung good for promoting the vigour of Rhododendrons.

[Yes, applying it when well rotted, digging it in at the extremities of the roots, to lay a portion over the surface and sprinkle a slight portion of peat over will also improve them.—CONDUCTOR.]

ON HOT WATER PIPES.—Some time back I had a conservatory heated by hot water, in pipes; when I no longer require to have the use of the hot water to heat the house, as in spring and summer, I am puzzled to know whether it is best for the pipes, &c., to draw off the water entirely from the boiler and pipes, or to keep them full till the return of the heating season in autumn. Perhaps some reader of the CABINET may have had experience in the matter, or having seen old pipes which have been broken up, has had an opportunity of observing the different effects of being kept empty, or retained full of water, will favour me by information. An early answer will much oblige

THE COLONEL.

ON GROWING GLOXINIAS IN A FRAME AND GREENHOUSE.—I am anxious to cultivate several of the Gloxinias, but not having a plant stove, I am desirous to

know if they could be brought forward properly in a hot-bed frame, such as a cucumber bed, &c., and then be removed into the greenhouse so as to succeed in blooming satisfactory.

LOUISA.

[Early in February the dried bulbs should be repotted, shaking off all the old compost, and potting them in equal parts of rich sandy loam, (not sifted,) and peat and leaf mould, only insert them about one-half deep in the compost. After potting place them in a hot-bed frame, be careful not to give water till the shoots push, unless the soil become quite dry, but when growing give a proportionate increase. Admit air to prevent the shoots being weakly. They will soon show for bloom, when this is seen, they may be removed to the greenhouse, placing them near the glass, where they will bloom as well as if they had had entire hot-house treatment. After the bloom is over which will generally be in September, gradually withhold water, when quite dry remove the pots, keeping them entire, to a dry place, from frost till February. Any of these kinds will succeed. The following are the kinds most recommended:—

| | |
|--------------|-------------------|
| G. Candida. | G. Speciosa alba. |
| Caulescens. | Macrophylla. |
| Grandiflora. | Priestleyana. |
| Maxima. | Rosa alba. |
| Menziesii. | Rubra. |
| Speciosa. | Discolor. |
| Violacea. | Hybrida superba. |

The prices of which being from 1s. 6d. to 2s. 6d. each, place them within the purchase of amateurs of this class of florists.—CONDUCTOR.]

ON FUCHSIA AFFINIS, (radicans of some.) I had a plant of *Fuchsia affinis*, or radicans, last spring; it was kept in a good greenhouse, grew freely, but not a single blossom was produced. I should be obliged if informed how to treat it, so as to induce it to bloom this season. An early reply will be an additional favour.

A BEGINNER.

[It ought to have but little pot room, which will induce it to show bloom. As soon as the blossoms can be distinguished repot into a larger and give the plant every encouragement, and a vigorous bloom will be produced. It must not be repotted till it shows bloom again the following season, when repot, &c.—CONDUCTOR.]

ON A SHADE FOR CARNATIONS.—It would be a real kindness, if either you, or any one of your numerous correspondents, would, in an early number of your CABINET, give some plan for a shade for a small collection of Carnations, say fifty pairs, so that the whole number might be seen at once, as they cannot be, when shaded by separate shades. The plan should, if possible, be simple and unexpensive, to admit of general application in my locality.

[When the plants are grown in the open border, a temporary ridge roofed covering, formed with corner supports of a sufficient height to stand erect underneath, and having a permanent covering over the roof, and ends, and on each side constructed to draw up or let down, so as to admit air, &c., as desired, or exclude sun, wind, or rain. A covering of jaconet, prepared with Whitney's transparent waterproof composition, is the best material that can be used. The entire cost is but 6d. per square yard. When grown in pots a permanent erection can be constructed in any suitable situation, and the roof be removed after blooming, or the erection be used for other purposes.—CONDUCTOR.]

REMARKS.

CAMELLIAS.—We visited early in April the London collections of this noble tribe of flowering plants, at Messrs. Low's, Chandler's, Smith of Dalston, and Loddiges's, and found the following to be the best in the various collections.

TRAVERSE.—A light rosy red, blotched with white, petals imbricated.

- MINUTE.**—Rose, with round petals. Very good.
- ALBERTUS.**—White, striped and blotched with rose and pink. Very superior.
- PRESLEY ROSEA.**—Blush, striped with rose. Very good.
- PUNCTATA.**—White, spotted with light rose. Very good.
- CORALLINA.**—Rich red, large flower, double, with an Anemone centre. Very fine.
- IMBRICATA ALBA.**—White, with occasionally one stripe of pale rose up the centre of some of the petals. Very pretty.
- ROSSI.**—Red, large flower. Very double, good.
- TRIUMPHANS.**—Fine pink, very double and large, occasionally having blotches of white. Very fine.
- LADY GRAPTON.**—Deep rosy red, very double, and a splendid variety.
- LANDRESSII.**—Blush, streaked with white. Very double and very fine.
- MARCHIONESS OF EXETER.**—beautiful pink, very double and very large. A most superior variety.
- HENRI FAVRE.**—Pale rose, very double and very good sort.
- HENDERSONI.**—Pale blush-rose, slightly striped with lighter colour.
- DONKELARIJ.**—Light red, with large and small patches of white. Semi-double, very large and very showy.
- SPOFFORTHIANA.**—White, slightly striped with rose up the middle of the petal. Very pretty.
- FLORIDA.**—Very double, but when the flower is about three parts expanded, it appears very beautiful having then a fine cup shaped appearance.
- QUEEN VICTORIA (OR PRESLEYII).**—Red, with a stripe of white up the centre of the petal.
- EXIMIA.**—Crimson red, flower large, and good form.
- NITIDA.**—Pink, with a very distinct stripe of white up each petal, flower good form.
- SWEETII.**—Pale rose, striped, &c., with carmine flowers of the Pæony form. Very pretty.
- BEALI.**—Crimson red, petals imbricated and marked with white.
- CARSWELLIANA.**—Fine rose, with a stripe of white, much the form of the admirable old white.
- DELICATISSIMA.** Very beautiful white of the Pæony shape, and occasionally a stripe of carmine. Very fine sort.

ON WHITNEY'S COMPOSITION.—We have seen a house covered with glazed calico, coated over with this composition, and during the late hot sunny weather, it proved admirable for the growth of a general collection of greenhouse plants; it admits a clear light, quite sufficient for the growth of the plants, and at the same time so shades them from the bright sun, that there is not the least symptom of flagging.

We find too it answers every expectation for the growth of melons, cucumbers, &c. For a house to strike cuttings in it will prove all that could be wished, affording warmth and shade at the same time and no danger from any casualty of neglect to shade, as is often the case in glass houses.

The use of this for protecting wall trees, shading greenhouse plants in summer, florists' flowers, &c., &c., will no doubt become general.

[We can supply the composition, or prepared covering, and shall be glad to give any information which our experience and observation enables us to do.—
CONDUCTOR.]

LONDON HORTICULTURAL SOCIETY, REGENT-STREET.

On April 2nd Mr. Hunt Grulbe, of Shirley, near Southampton, sent a specimen of slate wall contrived by him, which was stated to have the following recommendations. If placed direct with the meridian, and thus made to have an equal share of sun on both sides, it will ripen any fruit on either side earlier than the south side of a brick wall by means of the transmitted heat. It is not recommended as an outside fence, as it is liable to be broken; but chiefly for intersecting the interior of gardens in the place of dwarf or shelter hedges. It

consists of squares of slate grooved into each other, and strengthened by piers or pillars, which are placed at certain distances—and, being built with circular and square bricks cemented together, are round and stand out a little from the wall. The trees are fastened to wires, which are fixed into the slate about six inches apart. Mr. Grubbe stated that this wall could be erected for $5\frac{1}{4}d.$ the square foot, being $1d.$ less than even a $4\frac{1}{2}$ -inch brick wall, which costs $6\frac{1}{4}d.$ the square foot. From the gardens at Chatsworth were two bunches of West St. Peter's Grape, shrivelled, and in the condition of fine raisins, which Mr. Paxton stated to be of last year's growth, and to have been kept through winter at an almost nominal expense of fuel. The house they have been kept in was in a low situation, and therefore not well suited for late Grapes. Mr. Paxton considers it a better Grape than the Black Hamburgh; and if both have the same treatment, the St. Peter's will keep six weeks or two months longer than the Hamburgh. Along with these were also the following plants:—*Dendrobium Paxtonii*, a large specimen, with orange blossoms, having a black spot in the centre; also *Eria excavata*, cut specimens of *Dendrobium Wallichii*, *D. cærulescens*, and *Cœlogyne interrupta*, the latter with pretty white and yellow flowers. A Knightian medal was awarded for the *Dendrobium Paxtonii*. Messrs. Loddiges, of Hackney, sent *Dendrobium macrophyllum* in good condition; this rare species is remarkable for the strong aromatic fragrance of its fine lilac blossoms. A Knightian medal was awarded for it. From Mr. Green, gardener to Sir E. Antrobus, Bart., was a most beautiful large specimen of *Erica aristata* major, uniformly covered down to the pot on all sides with pretty carmine and white waxy blossoms; it was also feathered with healthy dark green leaves to the very extremities of the branches. Along with it was a seedling *Calceolaria* (called *zebrina*), the flowers of which were of a bright yellow, beautifully spotted with brown; *Amaryllis hybrida*, and *Boronia anemonefolia*, the latter with pretty rose-coloured flowers. A Banksian medal was awarded for the *Erica*. Mr. Jackson, of Kingston, sent *Tiemandra Hugelii*, a greenhouse plant, with drooping star-like lilac blossoms, having a small dark spot in the centre. From Mr. Fielder, gardener to W. Linwood, Esq., was a cut specimen of *Phycella chloracra*, a bulb sent by Mr. Hartweg from rocks near Saragura; the flower-stem that bore the handsome but not gaudy green, red, and yellow blossoms sent was said to have been 3 feet 2 inches high. Mr. Robertson, gardener to Mrs. Lawrence, sent a collection of plants containing *Cyrtopodium Andersoni*, rarely seen in such perfection; an enormous specimen of *Maxillaria Harrisonii* in wonderful health; *Brassia Wrayæ*, a species from Guatemala; *Oncidium ampliatum* major; *O. luridum*; a *Hippeastrum*, and a well-grown plant of *Erica Wilmoreana*. A Knightian Medal was awarded for the three first. From Messrs. Henderson, of Pine-apple Place, was *Odontoglossum Rossii*, sent from Belgium under the name of *Oncidium Bergamia*. From the same collection were *Dillwynia tenuifolia*, a scarce New Holland shrub, which has a gracefully drooping habit, and is a remarkably free bloomer; *Brachysema platyptera*; *Epidendrum aloefolium*; *Boronia anemonefolia*, and *Dendrobium cærulescens* covered with blossom. A certificate was awarded for the *Dillwynia* and *Brachysema*. Mr. Ivery, of Peckham, exhibited seven seedling *Cinerarias*, and a plant of the new *Nemophila discoidalis*. From Mr. Lee, gardener to P. Pole, Esq., was a Cucumber which measured $21\frac{1}{2}$ inches long. From the garden of the Society were the following plants:—*Acacia hispidissima*, *Boronia anemonefolia*, *Begonia papillosa*, *B. acida*, *Columnnea Schiedeana*, the larger variety of *Oncidium ampliatum*, *Acanthophippium bicolor*, with curious yellow cupped blossoms, and *Echeveria rosea*, a greenhouse plant remarkable for its bright red leaves that are more conspicuous than the flowers, which are of the same colour. It was sent to the Society by Mr. Hartweg, from Mexico. It is not impatient of cold, having been sometimes exposed to a temperature as low as 35° ; it will also, on the contrary, stand any amount of sun-light, and it keeps in bloom during the whole winter, so that it is a very useful plant for many purposes. With these was a flower of *Aristolochia Gigas*, or "Pilate's Nightcap;" a twining stove plant, which bears singular large concave blossoms, having considerable resemblance to those of *A. foetens*, but much larger, and assuming more the appearance of a cap.

The Floral Exhibitions in London at the Regent's Park Royal Botanic Gardens, Horticultural Society, at Chiswick Gardens, and the Royal South London, at the Surrey Zoological Gardens, during May, June, and July, &c. They are expected to far exceed any former ones in the quantity and quality of specimens.

At Regent's Park Gardens, on Tuesday, April 30th, June 4th, and July 2nd.

Chiswick Gardens on May 18th.

Surrey Zoological Gardens, Tuesday, June 18th, July 23rd, and September 17th.

FLORICULTURAL CALENDAR FOR APRIL.

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

FLOWER GARDEN.—Continue to protect beds of *Hyacinths*, *Tulips*, &c. *Carnations* in pots should be encouraged by manure water, &c., in order to grow them vigorously; care in tying them will be required. By the middle of the month half hardy annuals—as *China Asters*, *Marigolds*, &c.—may be planted out in the open borders. Some of the best kinds may be potted, as done to the more tender sorts. Many kinds of greenhouse plants—as *Petunias*, *Salpiglossises*, *Salvias*, *Fuchsias*, *Heliotropes*, &c.—should now be planted out in the open border. *Dahlias* that have been forwarded in pots, frames, &c., may be planted out towards the end of the month. Seedlings may be pricked out, in a warm situation, having a deep, fresh, rich soil. When *Stocks*, *Mignonette*, *China Asters*, &c., are wished to bloom late in the year, seeds may now be sown, either under a frame or on a warm border. Slips of double *Wallflowers* should now be put in under a hand-glass. Seeds of biennials—as *Sweet Williams*, *Scabious*, *Campions*, &c.—should now be sown. Tuberoses, for late flowering, should now be repotted or put into warm borders. Offsets of *Campanula pyramidalis* should be repotted in rich soil, and placed in the greenhouse. Repotting must be continued till they cease to grow; by this means the plants will reach eight feet high, and be very branching. Cuttings of *Geraniums*, *Salvias*, *Heliotropes* which have been struck for planting into open beds, and not potted off, should be immediately done, so as to be well prepared for turning out by the 20th. *Auriculas* and *Polyanthuses* will require shading, but admit all possible air, or the flower stems will be very weakly. Protect from rain. *Ranunculuses* and *Anemones* shade, water, &c.—See Articles in former Numbers on each.





1. *Achimenes picta*. 2. *Verium Cleander Junglei*.

THE
FLORICULTURAL CABINET,

JUNE 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

ACHIMENES PICTA.

THIS very lovely flowering plant has recently been introduced into this country, and has been distributed to several of the principal nursery establishments by the London Horticultural Society. We are not aware of its native habitation, but as it flourishes well in the same circumstances and treatment as the other new species, we suppose it to be from the same country. The plants we saw, in most profuse bloom, were about a foot high, and had been kept in a plant-stove. There is no doubt but, if grown in a hotbed frame during its early stage, it may be removed into a warm greenhouse, &c., to be a summer's ornament there. We understand it will bloom from April to the end of October, and certainly deserves a place wherever it can be grown.

NERIUM OLEANDER VAR. TANGII.

We met with this very beautiful and ornamental plant in the collection of Messrs. Lane and Sons, of Berkhamstead, and from whom we obtained plants. It grows freely, and blooms profusely, even when the plants are quite dwarf. It is of easy culture, and one of the most interesting of *greenhouse* plants, well deserving a place in every one.

ARTICLE II.

REMARKS ON THE PINK.

BY MR. THOMAS CONNELLY, FLORIST, PRESTON.

ON looking over the Numbers of the CABINET for March and April, I perceive a good deal is said concerning this most beautiful flower. It is strange that so much difference in opinion should exist between the south and the north country growers. When Pinks are introduced into this part of the country from the south, they for the most part burst, and are filled with small petals and bad lacing; this cannot be because of the change from the south to the north—there must be some other cause. Mr. Ibbett, of Woolwich, in Kent, says, “he never saw, or heard of, a good Pink in Lancashire.” This is passing strange; so that all the Pinks raised in this county amongst the best of growers, goes for nothing, and which have been, and continue to be, sent to all parts of the country; and it is most extraordinary that none have yet found their way into the county of Kent. Mr. Ibbett further adds, that he has had the pleasure of supplying his Pinks into many of the northern districts. Be it so. I have frequently met with what is called Pink fanciers, whose taste and fancy was, the bigger the flower the better esteemed; the *bursting*, small *petals*, bad *lacing*, were not deemed faults: the individuals whom Mr. Ibbett supplied may have been of this class of admirers. I have always considered the Pinks of the south and the Pinks of the north quite different in character, and fully agree with Mr. Dent, here, in what he says in the April Number of the CABINET; indeed, it would be better if the south growers would give up the contest, and say at once, what we have frequently said, are the Pinks they most esteem; and I will answer for all the Lancashire growers that they will feel quite comfortable on the subject—we, with our clean, *unbursting pods*, good leaf, (petal,) well laced, and having as many floral leaves as to form a regular flower—they, with their large, *bursting pods*, full of small *petals*, with *bad lacing*, and in which there is nothing to make a good Pink of. All will then be perfectly satisfied that they possess flowers suited to the fancy of themselves, and those who dispose of them, for their customers. There will be a Pink show here next month, when I will forward a list for the

CABINET, also a few specimens in flowers, properly labelled, to any who may require it, and by which a judgment may be formed of the merits of each kind.

Preston, 4th May, 1844.

ARTICLE III.

REMARKS ON THE PINK.

BY MR. THOMAS IBBETT, FLORIST, BULL-FIELDS, WOOLWICH, KENT.

“Errors alone needs artificial support—truth can stand by itself.”

In the Number of the FLORICULTURAL CABINET for April last, I find in Articles 5th and 6th some observations on what I had written in the previous Number, the former by “Florista,” the latter by Mr. William Dent, of Preston, Lancashire. To those two gentlemen I beg to observe, it is not my intention to retract, in the smallest degree, any statement I therein advanced, but on the contrary, shall endeavour to show that I am not alone in that opinion. I consider, however, in the first place, I am not bound to answer persons any question which they may think proper to ask, except in substantiating my remarks as positive facts. Prior to my seeing the CABINET for April last, (not having called for it till the 8th,) I received a letter from a gentleman in the north, dated 3rd April, requesting me to forward some specified sorts of Pinks, among which were Norman’s “Henry Creed,” and Unworth’s “Omega;” in conclusion to his letter, he made some remarks in allusion to the article I had written, of which, by his permission, I now take the opportunity of inserting a verbatim copy, viz. :—“I am glad you have given the Lancashire florists *a hint* about their Pinks, as their taste is PERFECTLY RIDICULOUS. We got many of their sorts here a few years ago, but threw them all away after one season, they were so small. The most of them had only two rows of petals, and that will do nothing for Felton; we must have them large, full, and well crowned, or they are of no use here. I think there is no difference between your taste and ours, and I am glad you have said so in the CABINET.” A few days after I received this, I sent to the gentleman to know if he would allow me to insert his remarks in the CABINET. I received the following reply:—“I have no objection whatever to your using my remarks on the Lancashire Pinks in your next article in the CABINET, as I know full well that my opinion of them is quite correct. What I have seen

of them are perfectly useless here for competition, as they *want stuff*. In fact, some of them come with only two rows of petals, and were little larger than a waistcoat button; but flowers of that size will not satisfy the Northumbrian amateurs, who want rose-leaved flowers, of large size, and well crowned, with central petals. In fact, our taste in this respect is precisely the same as that of the London growers, and this makes us buy up the southern celebrated kinds of pinks in preference to going to the Lancashire markets." Should any person doubt the genuineness of the above observations, I will refer him to Mr. William Harrison, Felton Bridge-end, Northumberland, who, I have no doubt, will give any information on the subject alluded to in this article. I would beg to call attention to the acknowledgment of Mr. Dent, that the Lancashire Pinks are not grown by any of the London florists, but he has not given any reason for their not doing so; on that point I will most cheerfully assist him—that is, because they are good for nothing. Mr. D. has named a number of sorts of Pinks, which he styles the "London Pets;" should he bloom them as they are bloomed about London, I am quite certain he will do as they did at Felton, throw out their Lancashire productions, and cultivate in future the standard of excellence so universally acknowledged to be attained by the metropolitan growers.

In concluding these remarks, I should be very sorry to hurt the feelings of any of the Lancashire gentlemen, but truth will stand the test of time, and bear me out in the above observations.

ARTICLE IV.

REMARKS ON THE CULTIVATION OF PLANTS IN CHARCOAL.

BY MR. J. E. TESCHEMACHER.

(Inserted in *Hovey's Magazine of Horticulture*, a work published in New York, monthly.)

THE first view I took of the value of charcoal in horticulture arose from the arguments on the different powers of well-rotted and of fresh manure; my prejudice, from constant practice, being rather in favour of the former. And one of my imaginary reasons for this prejudice (for proof was not to be expected) was that the carbon of the vegetable part of the old manure was reduced by fermentation and complete decomposition (combustion, Liebig) to the finest possible state of comminution, such as it is totally impossible to imitate by the most

laborious mechanical pulverization. In this finest of all states, carbon, if used at all by the living vegetable, could be most easily appropriated. My experiments were, therefore, all made with the finest pulverized wood charcoal I could procure, such as is used in making gunpowder. 1st. I planted a young thrifty plant of *Daphne odora* in this charcoal altogether; in twelve months it was alive, the leaves quite yellow. On examining the roots they had not in the least increased or altered. I then repotted it in loam, with one quarter charcoal, and watered with a very weak solution of nitrate of soda. In four weeks the leaves had become of a dark blackish green, and the plant was beginning to push vigorously. 2nd. I planted a fine root of *Fuchsia fulgens*, with a stem, in charcoal alone. It immediately began to vegetate; the leaves were, however, extremely diminutive, and soon dropped off; the flowers appeared also diminutive, and finally dropped off likewise, just after opening. It then, with the others, went to rest; but, to my surprise, in August, it again began to vegetate, and went precisely through the same process as in spring, others which were by its side remaining dormant; after this it went again to rest. 3rd. I potted several seedling *Camellias* in one quarter charcoal, one quarter old manure, one half loam; these grew with great luxuriance, and the colour of the foliage was dark healthy green. 4th. I potted several young *Pelargoniums* with various quantities of charcoal, never exceeding one quarter, often very much less. In these the effect was the same, both coming very near to the luxuriance and size of foliage of those treated with guano. In August last I made up my mind to re-pot and top-dress a large number of exotic plants, of various kinds, many of which were in a bad state from neglect; of these the chief number were *Camellias*. I made up a compost, consisting of about two-thirds Roxbury fresh loam, and one-third a compost chiefly consisting of old manure. To this I added about one-fortieth part of charcoal, and had the whole very carefully and intimately mixed; with this I operated. In September, when I thought the earth had got well settled round the roots, I began to water, every Saturday, with water in which guano had been mixed, in the quantity of about one ounce to ten gallons. I was perfectly astonished at the alteration which appeared in about four weeks, in the general health of all the plants; it seemed to me like magic; and many who visited the public conservatory, previous to

the late calamitous fire, can bear testimony to their beauty and luxuriance. The earth of one large *Camellia* (double white), with about 250 blooms, was nearly altogether changed, the tub having fallen off with much of the earth. I hardly expected to save the blossoms, but they opened in as great splendour as the others. It seems to me that the period of the opening of the flowers was also generally accelerated. We had twenty or thirty out the first week in November; and the first week in December, just previous to the fire, I counted above 500 in full beauty. This was certainly earlier than we had them in previous years. *Passiflora Loudoni*, which, under the best of common cultivation, has always yellow and unhealthy-looking leaves, was placed in this mixture, with the addition of charcoal drainage. The rapid change in its appearance was surprising, and although, from unavoidable circumstances, it was removed into this soil just previous to flowering; yet, instead of being checked, fresh flower racemes shot forth, and, with the others, opened their beautiful blossoms in the greatest splendour, the foliage becoming of a fine healthy green, and spread open, not curled in at the edges. I had several other experiments in progress on the use of charcoal, some of which I had hoped would have thrown light on its immediate action on the roots of plants, a subject on which we are at present in the dark. Unfortunately, these, with many others, were destroyed by accidental fire. My impression from these trials is that, although charcoal alone is nearly useless, yet, when mixed in due proportion with the earths and salts usually found in soils and manures, its presence is highly beneficial, and greatly promotes the luxuriance of vegetation, as far as regards stems and leaves. Of its value in the production of flowers and seeds, I am not, for the reasons before stated, able to give an opinion of any worth. It may be thought, and probably is in part true, that much of the luxuriance of the last-named experiments arose from the use of guano water; but, from other experiments with charcoal, instituted for the purpose of making comparisons with guano, and in which, of course, none was used, I cannot hesitate to believe that some portion of this luxuriance was also due to the charcoal.

ARTICLE V.

REMARKS ON THE TULIP TREE.

BY FLORA.

THE Tulip Tree (*Liriodendron Tulipifera*), being one of the most magnificent and ornamental trees for the pleasure ground, and not noticing any remarks upon it in the CABINET, induces me to transmit the following:—

This superb forest tree is named *Liriodendron* from *Δενδρον*, and *λειριον*, lily. As it is a tree bearing liliaceous flowers, it is also called *Tulipifera*, tulip tree, from the resemblance which the blossoms bear to that flower. The word tulip is of Turkish extraction, and given to the flower on account of its resembling a turban.

The vegetable world cannot present us with a more interesting object than a tree of such exalted stature, covered with a foliage so singular and beautiful, as is the tulip-tree of North America. Its spreading branches give an extensive shade, whilst they are covered with an immensity of large and variegated flowers, that appear placed on the boughs like so many porcelain vases, to catch the dews of heaven.

It is hardly possible to contemplate this noble tree, without having all sordid and angry passions driven from the breast, and exchanged for those of peace and philanthropy. We wonder, therefore, that the poets, who are naturally lovers of trees, and have awakened our interest so much in favour of most others, should so long have neglected to sing the praise of this sylvan wonder of the new world, as to leave us without a head to our chapter.

Michaux tells us, in his work on the Forest Trees of North America, that the middle and western states abound with the *Liriodendron tulipifera*, some of which he measured, that were $22\frac{1}{2}$ feet in circumference, five feet from the ground, and from 120 to 140 feet in height. He tells us, that the timber is one of the most useful species of wood, being smooth and fine grained, easily wrought, and not liable to split, therefore desirable for the turner, as also for carving ornaments, pannels of coaches, chaise bodies, &c. It is also used for forming canoes; and frequently the trees are of sufficient size to hollow into the shape of those boats, so that they are of one piece of timber.

Kalm speaks of having seen a barn of considerable size, the sides and roof of which were made of a single tulip-tree, split into boards.

Mr. Catesby, in his Natural History of Carolina, says, there are some of these trees in America which are 30 feet in circumference. There is one inconvenience attending this wood, which is, that it contracts and expands itself more than almost any other timber.

The bark is an aromatic medicinal agent: it is often pounded, and given to horses that have the bots. The roots of the tulip-tree are said to be as efficacious in agues as Jesuits' bark.

In America these trees are distinguishable at a great distance, even when they have no leaves upon them, as the boughs are unequal and irregular, making several bends or elbows. Kalm observes, that it is very agreeable, at the end of May, to see one of these large rees, with its singular leaves, covered for a fortnight together with flowers, which have the shape, size, and partly the colour of tulips.

The leaves of this tree are generally from four to five inches broad, and about the same in length, of a singular shape, being what is termed abrupt, truncatum, appearing as if their ends were cut off with scissors; the side lobes are rounded, and end in blunt points. The upper surface of the leaves is smooth, and of a lucid green; the under side is of a pale green; and as they are supported on foot-stalks of four inches long, they hang and move in a very graceful manner. The flowers are produced at the end of the branches; they are, like the tulip, composed of six petals, three without and three within, which form a sort of bell-shaped flower that encloses the fruit, which is a kind of cone that has a stigma to each globosity. The filaments are numerous, and crowned with linear anthers, growing longitudinally to the sides of the filaments. The petals are of a greenish white, marked near the base with ochre yellow, and spotted with red, that gives them a fine appearance, particularly to look into; but they fall short of that gay appearance which most people expect at first seeing them, from the name being the same as that of the flower so celebrated for its gaudy colours. The flowers appear in July and August, but we know of no instance of their having ripened seed in this country.

The Hortus Kewensis notices the introduction of this tree into England, as long back as 1663; and Ray tells us, that it was cultivated by Bishop Compton, at Fulham, in 1668. When first it was

raised in this country, it was kept in pots and tubs, and housed in the winter, it being supposed to be of too tender a nature to live in the open air; but in this state it made but little progress, whilst one that was planted amongst other trees, in a wilderness or garden of the Earl of Peterborough, at Parson's Green, near Fulham, by its growth soon convinced the gardeners of the mistake they had made. This was the first tulip-tree which flowered in this kingdom.

When the hardy nature of this beautiful tree was known, many were planted in different parts of the country, some of which have arrived to a large size, especially those that were set in a rich moist soil.

The finest of this kind that we have seen are in the gardens of the Earl of Egremont, at Petworth, in Sussex, one of which has a trunk, that at 7 feet from the ground measures 10 feet 3 inches in circumference; it then branches into seven limbs three of which are 5 feet 8 inches each in girth, and the other four limbs are 3 feet 9 inches each. The height of the tree is about 90 feet, and its boughs extend to a circle of 189 feet, or 63 feet diameter.

There are also some tulip-trees, of great bulk and beauty, at Wilton, the seat of the Earl of Pembroke; at Waltham Abbey, and many other places, in various parts of the country. The late Marquis of Londonderry took great delight in a tree of this kind, which grew on his lawn at Craysfoot, in Kent; where long may it remain, sacred, as a memento to mankind, that the most exalted situations are often the most perilous, and that happier hours may be spent under the shade of *Liriodendron*, than near the blazing splendour of a throne.

— “ Who, that lives,

Hath not his portion of calamity?

Who, that feels, can boast a tranquil bosom?

Mrs. ROBINSON.

Mr. Darby, at Hoxton, and Mr. Fairchild, are said to have been the first who raised tulip-trees in any quantity from seeds, and from them the gardens abroad were chiefly supplied. The original tree at Parson's Green is quite destroyed; not so much by age as by the other trees which were suffered to overhang it, and rob it of its nourishment, from a fear of taking them down, lest by admitting the cold air to the tulip-tree it would be injured,

The French gardeners notice the following varieties of this tree:— 1st, *Liriodendron acutiloba*, with lobes acute, acuminate. 2nd, *L. obtusifolia*, with obtuse leaves. 3rd, *L. integrifolia*, with leaves entire. 4th, *L. flava*, yellow-flowered. This last variety deserves the preference, because its flower is larger, of a bright yellow, and sweet perfume.

These trees are propagated by seed, that is now annually imported from America; and it is also increased by layers; but these are commonly two or three years before they take root, and the trees so raised are seldom so fine as those raised from seeds; but, like all other stunted plants, they flower sooner. When raised from layers, we should recommend the branches to be ring-barked, which would facilitate the obtaining roots.

The tulip-tree prospers best in a light, loamy soil, not too dry.

A tree of such extraordinary stateliness and beauty deserves a place in every ornamental pleasure ground. It is a proper ornament for the park as well, and would, in this situation, become a more durable monument, to commemorate any local or family event, than those generally raised of stone or marble, whilst the difference of expence would be found to be as pence are to pounds.

ARTICLE VI.

ON THE CULTIVATION OF ORANGE AND LEMON TREES.

BY A TRAVELLER.

RECENTLY I noticed in the CABINET that advice was requested by a correspondent of Hull, as to a successful method of treating the Orange and Lemon trees. I have not the convenience of growing them, but having resided at Florence and other parts of Italy for three years, as well as in the south of France for two more, I have had, in my perambulations of pleasure, many opportunities of seeing the mode of treatment practised with them grown in the open air, and which produced the most gratifying results.

There are several modes of cultivating them, viz., against walls, and in large earth tubs, also trained as espaliers. The trees against walls and espaliers are grown in the natural soil, well enriched. They are always well attended in the dry seasons with water, occa-

sionally applying liquid manure over the soil. The shoots are regularly thinned out, as is done to Peach trees in this country, retaining only just sufficient to produce a due proportion of fruit in every part of the tree. By proper attention to pruning, a number of small branchlets are produced, and on which, in general, the fruit is produced. The thinning of the shoots takes place first, when they have pushed two or three inches long, and a second thinning when it is rendered necessary from vigorous growth during summer. A third attention is paid to thinning, shortening, and duly securing during, what is termed, the season of rest. They thin the young green fruit judiciously at an early stage, regulating the quantity by the state of the tree, and never allow the fruit to remain long on the tree after it is fully ripe, otherwise the tree sustains much injury, being weakened thereby. Strong reeded covers half a foot thick are placed before the wall trees, and the espaliers have covers of the same to protect the trees in winter, air being admitted whenever practicable during the day. The plants in the earth tubs are removed into sheds, and similar places, during the same season. The covering, &c. is wholly removed as soon as can be safely done. Manure over the surface, &c. is then applied, and a spring regulation takes place.

The shoots of those trees grown in tubs are regularly thinned, shortened, &c. as is done to the wall and espalier ones. It is quite astonishing to see the difference that is produced by the attention of thinning and shortening the shoots, watering, &c., to what is the result when plants are allowed to grow naturally. The contrast in the fruit is most apparent; against the walls and espaliers it is more than treble the size.

I am persuaded if in this country, in conservatories and greenhouses, the training and pruning of the trees were adopted, similar beneficial results would follow, and much of the mortification and complaining of disappointment, both as to bloom and noble sized fruit, would be obviated. I am further of opinion, that a conservatory or greenhouse ought to be what is understood by a *warm* one, to be kept not lower than forty-five degrees during the coldest part of winter, and from sixty-five to seventy, or even more, during summer.

A friend of mine is trying the plan near Dublin, and I will forward the particulars at the end of the season, if spared to do so.

ARTICLE VII.

REMARKS ON INDUCING THE HYDRANGEA HORTENSIS TO PRODUCE BLUE FLOWERS.

BY CLERICUS.

SEVERAL admixtures of compost have been from time to time recommended in which to grow the *Hydrangea hortensis*, in order to cause it to bloom with *blue* flowers. I have tried all I have noticed, and the following is the most successful.

Very *fine* iron filings, and grinders dust (that is, the fine sandy substance that is found under the stone wheels of the knife-grinders) composing one part. Pure yellow loam from a hedge row one part, and another equal part composed of the same proportions of rotten leaf soil (or rotten wood) and bog peat. In this compost well incorporated, I put several plants which had only bloomed rose colour previously. The first season the flowers on every plant were of a pale blue. They were repotted in spring following in the same kind of compost, and the blossoms were of a much deeper blue. The third season they were of a rich blue, and have *invariably* been so every successive season. The rough drainage in the pots I formed of pieces of stone taken out of the yellow loam, and pieces of turf where the yellow loam was collected, with a handful or so of rusty pieces of iron nails intermixed. These formed the drainage, which was at least two inches deep.

It is certain that the iron filings cannot act directly upon the organism of the roots, but is gradually converted to an *oxyde*, by the decomposition of water, directly or secondarily by that of the vegetable contained in the compost. In either case it is not to be expected that the iron would be dissolved and conveyed through the sap vessels into the floral organs; unless, indeed, some vegetable acid were produced capable of acting upon the iron at the moment of its oxydation, and so form a soluble chalybeate salt. It is however evident that the plants absorbed a certain something from the iron, which became the direct agent in producing the change of colour. It is certain that however fine the filings of the iron may be, the particles cannot be absorbed in that state, they must therefore be so changed as to become soluble; or, by attracting oxygen from the moisture of the soil, and leafy remains, &c. be converted into an oxyde.

ARTICLE VIII.

REMARKS ON GROWING PLANTS IN GLASS CASES,

BY CALEDONICUS.

OBSERVING inquiries have been inserted in some recent Numbers of the FLORICULTURAL CABINET about Ward's glass cases for growing plants in, I am induced to offer some remarks upon them, and additionally to forward an extract on the subject from a paper which was read to the Botanical Society of Edinburgh.

The form of the case may be varied to suit the taste of the proprietor, and to be an ornament to the sitting-room, &c. The following is the detailed process of preparation of soil, &c., as read before the Society, the copy of which I subsequently obtained, and have transcribed.

Preparation of the Soil and Mode of Planting.

The soil consisted of the following ingredients, which were placed in the box in the order now to be stated. Its bottom was covered with broken potsherds, to the depth of two inches, over which was spread one inch of very turfy loam; the remaining space in the box was filled with soil, composed of equal parts of peat and loam, with which a portion of rough white sand, amounting to about one-twentieth part, and free from iron, was mixed. After being planted, between three and four gallons of water were freely showered over the tops of the plants from a fine-rosed watering pot; this was continued till the water ran freely from two holes made in the bottom of the box for that purpose. After draining for twenty-four hours, the holes were tightly fitted with corks; and the glass roof, or cover, was then put on.

The case, with its plants, was placed at the window allotted for it. The window has a southern aspect, and the morning sun strikes upon it several hours in the day. During this period, the temperature within the case was several degrees higher than that in the room; while in the absence of sunshine, or when a fire was kept up, the temperature of the room was highest. At other times, when neither sun nor fire prevailed, the temperature within and without the case rose and fell simultaneously. At no period of the winter did the temperature in the room fall to the freezing point; nor, it is believed, rise in summer higher than to about 80°. No fresh water was given

during the whole period ; nor was the door of the case opened, but to remove a dead leaf or plant that had damped off. Once only was the cover taken off, in order to check the *Lycopodium stoloniferum*, which had grown so luxuriantly as to shade and injure the other plants.

Incident which suggested the Invention of the Case ; with Remarks on the Mode in which a Smoky Atmosphere proves injurious to Vegetation.

Having thus described the apparatus in which the plants were confined, the soil in which they have been grown, and the progress they have made under the peculiar conditions in which they have been subjected to the combined action of the several agents concerned in promoting vegetation, it is proposed next to consider how plants naturally inhabiting such different climes, and possessing such different characters, should be able, not only thus to live together, but to flourish in circumstances foreign, in many respects, to the native habits of all. Perhaps the best mode of dealing with this question will be, to compare briefly the conditions to which they are submitted in these close cases, with those to which they are naturally exposed in the free atmosphere.

Before entering on this investigation, it may not, however, be out of place to advert to the origin of the invention which has just been described. From his early youth Mr. Ward had been attached to botanical pursuits ; but, living in a situation enveloped in the smoke of numerous manufactories, he had been compelled to give up the cultivation of plants, after many unavailing trials. At length, a simple incident put him on new experiments, and led him gradually to the results we are about to detail. He had buried the chrysalis of a sphinx in some moist mould, which was contained in a wide-mouthed glass bottle, covered with a lid. In watching the bottle from day to day, he observed that the moisture, which, during the heat of the day, rose from the mould, became condensed on the inner surface of the glass, and again fell back to the mould, so as to keep it always in a state equally moist. About a week prior to the final change of the insect, a seedling fern and grass appeared on the surface of the mould. After having secured the insect, Mr. Ward set himself to watch the developement of these plants in such a confined situation. He placed the bottle on the outside of the window of his study, where the plants

continued to grow, and turned out to be the *Poa annua*, and *Nephrodium Filix-mas*. From this incident, so well improved by Mr. Ward, have arisen the results, both physiological and practical, which form the subject of the present communication. These results were published in the "Companion to the Botanical Magazine," edited by Sir W. J. Hooker, in May, 1836; but the incident which gave rise to them, and the experiments to which it led, occurred seven or eight years before, that is, about eleven years from the present time (1839.)

His previous want of success in growing plants in the ordinary mode, Mr. Ward attributes to the "depressing influence of the fuliginous matter with which the atmosphere in which he lives is impregnated." The real mode, however, in which such an atmosphere proves injurious to vegetation, was first shown by the experiments of Drs. Turner and Christison, which were published in the 93rd Number of the "Edinburgh Medical and Surgical Journal." They ascertained that it is not simply to the diffusion of fuliginous matter through the air, but to the presence of sulphurous acid gas, generated in the combustion of coal, that the mischief is to be ascribed. When added to common air, in the proportion of $\frac{1}{10000}$ or $\frac{1}{100000}$ part, that gas sensibly affected the leaves of growing plants in ten or twelve hours, and killed them in forty-eight hours, or less. The effects of hydrochloric, or muriatic acid gas, were still more powerful, it being found that a tenth part of a cubic inch, in 20,000 volumes of air, manifested its action in a few hours, and entirely destroyed the plant in two days. Both these gases acted on the leaves, affecting, more or less, their colour, and withering and crisping their texture, so that a gentle touch caused their separation from the footstalk; and both exerted this injurious operation when present in such minute proportions as to be wholly inappreciable by the animal senses.

After having suffered much injury from these acid gases, the plants, if removed in time, will recover, but with the loss of their leaves. Hence, in vegetation carried on in a smoky atmosphere, the plants are rarely killed altogether, but merely blighted for the season. Accordingly, in spring, vegetation commences with its accustomed luxuriance; and as in many situations there is, at that season and through the summer, a considerable diminution in the number of coal fires, there will be a proportionate decrease in the production of sulphurous acid gas; and, consequently, less injury will be done to plants during

that season. In winter, too, when coal fires mostly abound, and gas is most abundantly generated, deciduous plants are protected from its noxious operation by suspension of their vegetating powers; but the leaves of evergreens, which continue to grow through that season, are constantly exposed to its action, when present in its greatest intensity. Accordingly, in many of the suburban districts around London, especially in the course of the river, where new manufactories are constantly rising up, the atmosphere is so highly charged with noxious matters, that many deciduous plants, and almost all evergreens, cease to flourish, or exhibit only a sickly vegetation.

In an interesting biographical sketch of his late lamented friend, Dr. Turner, Professor Christison confirms, by subsequent experience, the opinion formerly given respecting the noxious operation of the sulphurous and muriatic gases on plants; he describes their action as so energetic, that, in the course of two days, the whole vegetation of various species of plants may be destroyed by quantities so minute as to be altogether inappreciable by the senses. On two occasions he was able to trace the identical effects of the same kind of works (the black ash manufactory) on the great scale, which his friend and himself witnessed in their researches. In one instance, the devastation committed was enormous, vegetation being for the most part miserably stunted, or blasted altogether, to a distance of fully a third of a mile from the works, in the prevailing direction of the wind. Against the evils arising from such a vitiated atmosphere, the plan of Mr. Ward provides effectual protection, as the success of his own establishment amply demonstrates.

Condition of Plants, in regard to Water, in close Cases and in the free Atmosphere.

In considering the conditions essential to vegetation, water may be allowed to claim the first place; for, if the vegetable exists in a state perfectly dry, neither the seed nor the plant can exert that action on the air which is essential for its developement and growth. It is "owing, therefore, to the prevention of the escape of the moisture within the cases, as Mr. Ward observes, that plants will grow in them for many months, or even years, without requiring fresh supplies of water: thus, the *Poa* and *Nephrodium*, above mentioned, grew for four years in the bottle without receiving one drop of fresh

water, and would, as he believes, have grown as many more had they not perished from an accident." In vegetation in the free atmosphere, the fluids, which may be absorbed either from the soil by the roots or from the atmosphere by the leaves, are, in great part, exhaled and dissipated; but, in the plant cases, they are condensed on the inner surface of the glass roof, and fall back to the soil from which they were raised. In this way, both the soil and atmosphere possess always sufficient humidity to carry on vegetation.

[*To be continued.*]

PART II.

LIST OF NEW AND RARE PLANTS.

BARBACENIA SQUAMATA. SCALY. (Pax. Mag. Bot.) Bromeliaceæ. Hexandria Monogynia. Seeds of this new plant were sent from Brazil to Messrs. Veitch's, of Exeter, with whom it has bloomed. It is an herbaceous perennial. The flowers in form somewhat resemble those of a moderate sized Fuchsia. The three exterior limbs and tube of the blossom of an orange colour, and the three inner ones of a crimson red. The foliage is of a grassy character, and the flower stems rise about eight inches high. It is a very pretty and interesting species.

BERBERIS TENNIFOLIA. THIN ASH-LEAVED BERBERRY. (Bot. Reg. 26.) Berberaceæ Hexandria Monogynia. A very rare species discovered by Mr. Hartweg, in Mexico. It is too tender to do well in this country in the open air, but thrives in a greenhouse, or coal pit, protected in severe winters. It blooms from October to December, the flowers being fragrant, of a light yellow, in racemes about one foot long.

CEREUS PITAJAYA. VARIABLE CEREUS. (Bot. Mag. 4084.) Cactæa. Icosandria Monogynia. A native of Carthagena, Peru, and Brazil. It is an erect growing plant. The flowers, including the tube, are about nine inches long. The petals are white, and the mouth of a flower about five inches across.

CYMBIDIUM PENDULUM, VAR. BREVILABRE. SHORT-LIPPED. (Bot. Reg. 24.) Orchidaceæ. Gynandria Monandria. This variety was discovered by Mr. Cuming, at Singapore, and forwarded to Messrs. Loddiges, with whom it has bloomed. Sepals and petals yellowish-green, streaked with a dull red. Labellum rose, with a yellow blotch at the centre, and a white margin.

DRYMONIA PUNCTATA. SPOTTED-FLOWERED. (Bot. Mag. 4089.) Gesneriaceæ. Didynamia Angiospermia. Introduced into this country from Guatemala, by the London Horticultural Society. It is a subherbaceous plant with creeping hairy stems. The flower is tubulous an inch long. The spreading limbs of the blossom is an inch across, with fringed edges. Of a pale yellow primrose colour numerously spotted with purple. It grows freely in a wire basket, in the moist stove, in the Royal Gardens, at Kew.

ERICA MURRAYANA. MR. MURRAY'S HEATH. (Pax. Mag. Bot.) Ericaceæ. Octandria Monogynia. A beautiful hybrid, raised from seed by Mr. A. Turnbull, of Bothwell Castle Gardens, near Hamilton, in Scotland, and who has named it after his friend Mr. Murray, of the Glasgow Botanic Garden. It was produced from seed, between *E. aristata* minor, which is a dwarf compact grower, and *E. vestita* coccinea, the former being impregnated with the pollen of the latter. The variety raised has realized the intended object, being compact, and the flowers of a rich crimson red, produced in terminal heads.

BOLBOPHYLLUM CALAMARIA. QUILL-STEMMED. (Bot. Mag. 4088.) Orchidaceæ. Gynandria Monandria. An Orchideous Epiphyte, which has been received from Sierra Leone, by John Gray, Esq., of Greenock. The flowers are

produced in a spike, the stem being a foot high. The flowers are yellow, having the lip of a deep blood-purple colour, much fringed. Each blossom is about an inch across, having very narrow petals and sepals.

ERIA BRACDESCENS. LONG-BRACTED. (Bot. Reg. 29.) Orchidaceæ. Gynandria Monandria. Discovered at Singapore by Mr. Cuming. The raceme of flowers is about six inches long, erect. Each blossom is about three quarters of an inch across. Sepals and petals white, with a small crimson lip, having a white end.

HIBISCUS CAMERONI-FULGENS. An hybrid raised between *H. cameroni* and *H. fulgens*. It is a handsome variety. Each blossom, single, is five inches across, of a rich crimson colour. It well deserves a place in the hot-house.

LINDLEYA MESPILOIDES. MEDLAR-LIKE. (Bot. Reg. 27.) Roseaceæ. Icosandria Pentagynia. A small evergreen tree, much like *Mespilus grandiflora*, but with flowers as sweet as the Hawthorn. It is as hardy as an Escallonia. Each flower is about an inch and a half across, white.

MACLEANIA LONGIFLORA. LONG-FLOWERED. (Bot. Reg. 25.) Vacciniaceæ. Monadelphia Decandria. Said to be a native of Peru. It requires in this country to be grown in a warm greenhouse. It is a neat compact evergreen shrub, growing to the height of five feet in its native situation. The flowers are produced from the axils of the leaves, usually in threes, and numerous along the shoots, so as to form pretty spikes. Each flower is tubulous, an inch and a half long, of a deep orange-red colour, much like a *Bouvardia triphylla* in form and appearance. It deserves a place in every greenhouse.

PENTAS CARNEA. FLESH-COLOURED. (Bot. Mag. 4086.) Rubiaceæ. Pentandria Monogynia. (Synonym *Sipanea carnea*.) A native of Africa, said to have been gathered at Accra, by some person in the Niger Expedition. It is a stove plant of much beauty, somewhat in appearance like a *Melastoma*. The plant grows a foot high, scarcely shrubby, branches herbaceous. The flowers are numerous produced in terminal large corymbs of a delicate purplish-flesh colour. Each blossom is near an inch across. It continues to bloom nearly all the year. It well deserves a place in every stove.

STATICE PSEUDO-ARMERIA. FALSE-THRIFT. (Pax. Mag. Bot.) Plumbaginaceæ. Pentandria Pentagynia. It is an herbaceous perennial plant. Like the well-known common Thrift, it blooms in large globose heads, of a rich rose colour. It is an ornamental plant for the greenhouse, and well merits a place there; and in summer will flourish well in the open bed of the flower garden,—and in masses would look well. It is to be obtained of the principal nurserymen.

NEW PLANTS NOTICED IN BOTANICAL REGISTER NOT FIGURED.

ASTYRIA ROSEA.—A native of the Mauritius. It is a beautiful flowering hot-house plant, and has bloomed in the collection at Syon Gardens. The flowers are produced in large paniced heads, of a pink colour.

HYPOCALYMMMA SVAVIN.—From the Swan River Colony. It is a sweet-scented, graceful, greenhouse shrub; the flowers are white.

ANDROMEDA PHILLYRECFOLIA.—In habit it is much like a broad-leaved *Andromeda polifolia*. It is a narrow leaved evergreen, greenhouse plant. The flowers are white. It has bloomed with Messrs. Loddiges.

ONCIDIUM LACERUM.—It has very much the habit of *O. longifolium*, but the flowers are more dense. It has bloomed in the collection of Messrs. Loddiges.

Plants noticed in Nurseries, &c.

ARISTOLOCHIA GIGAS.—We formerly remarked upon the singular flowers of this plant, and having recently seen it in bloom in the Horticultural Society's garden, we find it to exceed the description formerly given of its singularity. The flower has a leathery appearance, and half a yard across; of a dull cream colour, numerous veined with purple, which intersect each other beautifully. Around the tube of the flower the colour is of a deep rich velvet purple. It has a disagreeable putrid scent. The plant is a climber, and requires to be in a hot-house, or warm conservatory.

HOVEA TRISPERMA.—It is a slender growing plant, but blooms freely; the

flowers are of bright lively violet colour. It is in bloom at Messrs. Henderson's.

HARDENBERGIA MONOPHYLLA VARIEGATA.—The leaves have large irregular blotches upon them, and so varied that not two leaves are alike, and produces a very interesting appearance. It is in the collection of Mr. Jackson, nurseryman, of Kingston, and well deserves a place in every greenhouse, as an interesting and pretty climbing plant.

PIMELIA HYPERICINA.—The flowers are white, with deep orange-coloured anthers, very neat and pretty. By pinching off the tips of the shoots the plant can be kept bushy. It is in the collection of Mr. Lee, of Hammersmith Nursery.

In the Conservatory of the London Horticultural Society's Garden.

TEMPLETONIA GLAUCA.—A fine specimen, six feet high, in fine bloom; its pretty, rich, red, and buff pea-formed flowers, rendering it very showy.

GENISTA CANARIENSIS has been in most profuse bloom for two months, the numerous showy yellow flowers producing a very cheerful and gay appearance. It is a very pleasing, spring-flowering plant, and continues to bloom a considerable part of summer too.

SCABIOSA PUMILA.—A dwarf-growing plant, with white flowers, very neat and pretty.

HOYTZIA MEXICANA.—The tube of the flower is an inch long, red on the outside, and white within. They are produced in long spikes; a very pretty greenhouse plant.

CYTISUS FILIPES.—A fine bush, eight feet high, in amazing profusion of bloom, its neat pure white flowers giving it a very interesting appearance.

At Mrs. Lawrence's, Ealing Park.

GOMPHOLOBIUM POLYMORPHUM LUTEUM.—The flowers of a pretty rich yellow, and the plant grows more bushy than the original species.

GOMPHOLOBIUM.—A new species, said to have scarlet flowers.

PLAGIOBIUM ILLICIFOLIUM.—Not yet bloomed.

GOMPHOLOBIUM SPLENDENS.—New, spoken very highly of.

CORREA RUBIODES.—The flowers are red and scarlet, very handsome. }

CHILODIA SCUTELLARIOIDES.—The flowers are like those of a small salvia, of a lilac-purple colour. It is a neat greenhouse plant.

RONDOLETIA LONGIFLORA.—Not yet bloomed.

SAURAJA SPECTABILIS.—The flowers are white, produced in panicles like those of a horse chestnut; a fine plant.

ACROPHYLLUM VENOSUM.—The flowers are like those of *Spirea Japonica*.

KENNEDYA OVATA.—The flowers are of a pretty purple.

HABROTHAMNUS FASCICULATUS.—Like a *Burchellia capensis*, the flowers are produced at the axils of the leaves, but they are of a richer red colour.

PLUMBAGO CAPENSIS.—This plant is generally to be seen growing a long and straggling plant, but by stopping the leads it can be formed so as to be a neat bush, and blooms beautifully.

HYDRANGEA JAPONICA.—The plant was not in bloom, but said to be white.

ASCLEPIAS CURASSAVICA.—Several of the Cassias and other plants had been similarly treated, and though naturally becoming long and unsightly, by this attention they had become dwarf bushy plants, and when in bloom appeared much handsomer. The treatment of stopping the leads had commenced with the plants when young, and so very different in appearance were they as scarcely to be like the family.

AZALEA.—A splendid double crimson-red.

ERICAS.—The numerous collection of nearly all the best sorts were in fine condition. The plants dwarf-bushy, healthy, and in fine bloom. The best plants were those grown in frames that were raised about six inches from the ground by bricks under the corners; this opening in fine weather admits a current of air through the entire frame. In cold weather the space is closed up; this plan is the best for producing robust, neat plants. Any sort that does not naturally grow bushy, and it is desired to have it such, the leads of the shoots are pinched off.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

To the Editor of the Floricultural Cabinet.

SIR,—Can you give me a list of three or four evergreen hardy thick-growing shrubs fitted for a shrubbery, rather exposed, excepting the *Laurestina*, the *Bay*, and the *Arbutus*? What mode is there for making the grass cut from a lawn available in horticulture or agriculture besides the use commonly made of it for a hot-bed?

Faithfully yours,

M. N. O.,

April 15, 1844.

A Subscriber of Two Years' standing.

REMARKS.

THE EXHIBITION AT THE ROYAL BOTANIC GARDENS, REGENT'S PARK, took place on Tuesday, April 30th. It far exceeded any former one in the display of very numerous well-grown specimens, which brought together a great concourse of visitors. The Queen and Prince Albert honoured the Society by their presence before the general visitors.

For a Collection of forty Stove and Greenhouse Plants.—AMATEURS.—1st Prize, Mr. Hunt, gardener to Miss Traill, Hayes-place, near Bromley. Among other fine-grown plants were the following:—*Ixora coccinea*, *Chorozema cordata*, *Erica Hartnelli*, *Leschenaultia formosa*, *Pimelea decussata*, *Hovea Celsii*, *Boronia serrulata*; several well-grown *Azaleas*, *Tropæolum tricolorum*, &c.

NURSEYMEN.—1st Prize, Mr. Catleugh, Chelsea. Among other fine specimens, it contained *Azalea variegata*, a noble plant; *Azalea alba superba*, *Erica Willmoreana*, *Pimelea decussata*, a large and splendid specimen; several fine *Cactuses*, *Calceolaria violacea maculata*, *Azalea congesta*, fine rose colour; *Azalea constantia*, fine rose, &c.

For a Collection of twenty Stove and Greenhouse Plants.—AMATEURS.—1st, Mr. Barnes, gardener to G. W. Norman, Esq., Bromley-hill. Among other fine plants were, *Erica Mundula*, in profuse bloom; *Boronia denticulata*, *Aphelexis humilis*, *Correa speciosa*, *Leschenaultia formosa*, *Erica odorata*.

NURSEYMEN.—Mr. Pawley, White Hart, Bromley. Among other fine plants were *Hovea Celsii*, *Cytisus racemosus*, *Tropæolum tricolorum*, *Pimelea decussata*, *Boronia serrulata*, several fine *Azaleas*, &c.

For ten Stove and Greenhouse Plants.—AMATEURS.—Mr. May, gardener to E. Goodheart, Esq., Beckenham. It contained *Erica Hartnelli*, *Aphelexis humilis*, &c.

For a Collection of six Stove and Greenhouse Climbers.—Mr. Frazer, of Lea Bridge. Among which were fine specimens of *Hardenbergia monophylla*, *H. macrophylla*, *Kennedyia villosa*, *Tropæolum tricolorum*, &c.

For best Collection of Cinerarias.—Mr. W. Taylor. The sorts were, *Queen Victoria*, *Azurea*, *Eclipse*, *King*, *Rival King*, *Favourite*, *Triumph*, *Lady Cavendish*, *Victoria Regina*, *Emperor*, *Miss Hankey*, *Pride of Peckham*.

For best Collection of twelve Pelargoniums.—1st Prize, Mr. Dobson, gardener to E. Beck, Esq., Isleworth. The sorts were, *Luna*, *Meteor*, *Susanna*, *Lord Chancellor*, *Evening Star*, *Erectum*, *Martha*, *Zanzummim*, *Brunette*, *Serjeant*, *Charmier*, and *Purpleam*. Dwarf, well-grown specimens.

For best Collection of twenty Roses in Pots.—Mr. Dobson. The sorts were, *Caroline*, *Hamond*, *Phoenix*, *Miranda*, *Cramoise superieure*, *Madame Newman*, *Arnosa*, *Belle Allamande*, *Nouvelle Heliose*, *Zobiede*, *Triomphe de Luxembourg*, *Eliza Suavage*, *Queen of the Bourbons*, *Eugene Dubourg*, *Therese Stravens*, *White odorata*, *Hardy*, *Madame Bosanquet*, *Theresa Stravens*, *Stadt-holder*.—2nd Prize, Messrs. Lane and Son. *Tea Roses*: *Blush*, *Lutescens grandiflora*, *Levison Gower*, *Belle Allamande*, *Caroline*, *Hardy*, *Eliza Suavage*.

—*China*: Cramoise superieure, Abbe Newland, Ictefos, Fabrier, Eugene Beauharnois.—*Bourbon*: Armosa, Phœnix, Theresita, Queen, Hybrid purpurea, W. Jesse, Queen Victoria, Fulgorie. Both collections were well grown; but the former plants were the larger.

Seedling Pelargoniums.—Mr. Dobson. 1st. Master Peel, lower petals rosy-purple, terminating to the centre to a clear white; upper petals rosy-purple having a large dark-velvet blotch, of fine form.—2nd. Lurida, rosy-scarlet, with a dark blotch on the upper petals; of good form, and a very attractive flower.—3rd. Chastity, the lower petals of a beautiful delicate pink, the upper ones having a deep maroon blotch, edged with pink; of good form.

Best Heartsease.—Mr. Brown. Arethusa, Ceres, Cinderella, Fancy, Bella, Curion, Viceroy, Maid of the Mill, Modesty, Cotherstone, Elect, Vivid, Superb, Captain Boldero, Eclipse, Prospero, Jehu, Warrior, Beauty of Bucks, Sulphurea elegans, Exquisite, Cook's Mulberry, Rob Roy, Jewess, Duchess of Beaufort, Imogene, Bathonia, Purple Perfection, Prince Albert, Regulator.

Seedling Azaleas.—1st Prize, Mr. Pawley. Carminata, a deep rich colour.—2nd, Mr. Falconer. Emmelina, a light-coloured flower.—3rd, Mr. Catleugh. Erecta, a brilliant rosy-carmine. Also an extra Prize for Gloriosa, a bright rosy-crimson.

Greenhouse Azaleas.—Mr. Smith, of Norbiton. Azalea alba superba, coruscans, punctata, decora, impressa, mirabilis, ardens, semiduplex coccinea, amabilis splendens, phœnicea alba, bicolor nova, magniflora plena. Also for three seedlings, Pallida, Elegans superba, and Rosea superba.

Seedling Rhododendrons.—1st Prize, Mr. Smith, of Norbiton. Very beautiful, in varied colours, ranging from lemon to deep buff, finely spotted. An extra prize was given to Mr. Wells, of Redleaf, for a collection of cut blooms; the kinds very superior, the colours ranging from white through various shades of pink, rose, to crimson; finely spotted. Mr. Gaines's Mirabile is of a rosy-crimson when in bud; it continues to vary in shade till it becomes white, and is beautifully spotted.

Single Specimens.—*Cyrtopodium punctatum*, from the garden of Sir George Staunton. The plant was in most vigorous health, the leaves extending to six feet high, and the fine bright flowers equally superb.

There were several collections of Orchideous plants. Mr. Hunt obtained the first prize. In the collection were fine specimens of *Epidendrum crassifolium*, *Oncidium Devonia*, *O. amplicatum*, *Calanthe varatrifolia*, *Phacus grandifolius*, *Cattleya Forbesii*. Mr. Bruce had *Cattleya Mossiæ*, and a splendid specimen of *Maxillaria Harrisonia*, *Oncidium luridum*. Mr. Dawson, of Brixton-hill, exhibited a fine specimen of *Erica propendens*. Mr. Forest, *Statice macrophylla*. Mr. Hunt, a new *Gesneria* from Mexico. Mr. Smith, *Azalea speciosissima*.

In the collections of stove and greenhouse plants there were several other exhibitors, who showed splendid collections, and had prizes awarded; but we could not get the names of the specimens for insertion here; but of the first collections we insert the prime. Altogether it was a splendid exhibition.

LONDON HORTICULTURAL SOCIETY.

May 7th. From Messrs. Loddiges, of Hackney, were *Dendrobium Heyneanum*, in good condition; *Masdevallia infracta*; a fine plant of *Camarotis purpurea*, in excellent health; together with the beautiful *Cattleya Skinneri*, and a remarkable specimen of *Dendrobium densiflorum*, having many bunches of beautiful Orange-blossoms. A Knightian medal was awarded for these. Mr. Plant, gardener to J. H. Schroder, Esq., sent a fine *Aerides crispum*, producing a fine spike of purple and white flowers. A Banksian medal was awarded for it. From Mr. Robertson, gardener to Mrs. Lawrence, was a collection of plants, containing a dwarf bushy specimen of *Chorozema Dicksonii*; a beautiful large *Hovea Celsi*, with very bright-coloured blossoms; *Dendrobium aggregatum*, in good condition; *Tetranema Mexicanum*, a pretty greenhouse herbaceous plant; and a good *Russelia multiflora*, which is one of the gayer of tender greenhouse plants. In the same collection were also a large *Pimelea hypericifolia*; *Lalage*

hoveæfolia; Epacris lavigata, covered with white blossoms; Adenandra amœna; Daviesia saligna; and a variety of Hardenbergia monophylla. A Knightian medal was awarded for the four first-named plants. From S. Rucker, Esq., was a variety (?) of Anguloa Clowesii, having large yellow flowers richly spotted in the interior with brown. This is a rare species of that hitherto almost unknown genus. A Banksian medal was awarded for it. Mr. Carson, gardener to W. Farmer, Esq., sent a variety of Epidendrum macrochilum roseum, having a fine raceme of pale violet blossoms. A certificate was awarded for it. From Mr. Glendenning, of Turnham Green, was a small plant of Pentas carnea, which is a scarce greenhouse plant, from South Brazil, having pale green leaves and delicate lilac blossoms; also an Indigofera, apparently incana, a plant with trailing stems, covered with gray foliage, which contrasts well with the deep purple flowers. Mr. W. P. Ayres, gardener to J. Cook, Esq., also sent Pentas carnea, for which a certificate was awarded. From J. Allnutt, Esq., was a good plant of Chorozema varium. Mr. Pawley, of Bromley, sent a Seedling Azalea, named carminata, having large rather dull red blossoms. From Messrs. Veitch and Son, of Exeter, was an Oxalis that was sent from Chili by their collector, Mr. Lobb. It is new to gardens, and will, no doubt, be an acquisition, as it is stated to be hardy, having survived all last winter, planted out on rockwork. A certificate was awarded for it. Mr. Mountjoy, of Ealing, sent a Seedling Calceolaria, considered to be an improvement on Lady Constable, two Seedling Pansies (named Princess Alice and Prince of Wales), and a collection of Pansy blooms. From Mr. Errington, gardener to Sir P. Egerton, Bart., was a series of flowers of Seedling Cacti, in which one, named Regalis, resembling Conway's Giant, was a very large fine flower; another named Longissima, on account of the length of the tube, was a flower of considerable size and beauty; and several others gave great promise;—a certificate was awarded for these.

THE LONDON HORTICULTURAL SOCIETY'S EXHIBITION OF FLOWERS, &c., HELD IN THE GARDEN ON MAY 18, 1844.

Pelargoniums.—1st Prize, NURSERYMEN, for 12, Mr. Gaines. Grown in pots 12 to the cast. Coronation, Nymph, Juba, Grand Monarch, Emperor, Cyrus, Rising Sun, Mabel, Comte de Paris, Grand Duke, Sylph, and Victory.

2nd Prize, Mr. Catleugh, Sylph, Unit, Witch, Coronation, Ovid, Una, Jubilee, Madeline, Favourite, Cyrus, Tasso, and Maid of Honour.

1st Prize, AMATEURS, for 12 new and first-rate varieties, grown in 24-sized pots, Mr. Cock, of Chiswick, Lord Chancellor, Hebe, Emma, Erectum, Symmetry, Sylph, Madame Taglioni, Gipsy, Rachael, Unit, Wizard, and Maid of Honour.

2nd Prize, Mr. Dobson, gardener to Mr. E. Beck, Isleworth. His collection comprised Flora, Lord Chancellor, Luna, Cleopatra, Leonora, Susanna, Angiola, Favourite, Bella, Matilda, Dido, and Sir R. Peel.

3rd Prize, Mr. Stains, for Ivanhoe, Jubilee, Lady Sale, Queen of the Fairies, Fair Maid of Devon, Superbum, Hebe, Rising Sun, Coronation, Enchantress; Duchess of Sutherland, Priory Queen.

1st Prize, for 12, grown in pots 12 to the cast,—Mr. Cock, Lord Chancellor Nestor, Eclipse, Cyrus, Queen of Fairies, Sylph, Tasso, Jubilee, Madeline, Juliet, Emma, Unit.

2nd Prize, Mr. Bell, of Chelsea Hospital, Mrs. Sterling, Comte de Paris, Sylph, Coronation, Victory, Priory Queen, Lord Mayor, Grand Duke, Climax, Prince Albert, Una, and Maid of Saragossa.

1st Prize, for 12, grown in 24-sized pots,—Mr. Gaines, Duchess of Sutherland, Lady Prudhoe, Lady Duncan, Vanguard, Augusta, Rising Sun, Lady Sale, Lydia, Ackbar, Coquette, Lady Mildmay, and Imperiale.

2nd Prize, Mr. Catleugh, Jubilee, Eclipse, Hebe, Camilla, Madeline, Symmetry, Tasso, Unit, Sir R. Peel, Emma, Duchess of Sutherland, and Wizard.

Seedling Pelargoniums.—The early period did not admit of many. There were the following exhibited by Mr. Whomes, gardener to E. Foster, Esq., named Dr. Lindley. The flower is fine in form, with bright, deep rose-coloured under petals, small white centre, with large dark blotch on the upper petals, leaving

but a narrow margin of bright rose. Another seedling attracted much attention it is a flower rather deficient in form, but possessing extraordinary depth and richness of colour of a peculiar quality; it was regarded with much interest by amateurs, who speculated upon the influence such a flower would have in future upon this favourite class. In Mr. Beck's collection we noticed two fine seedlings, *Arabella* and *splendens*; the former a rosy flower with a white centre, the latter a high and brilliant-coloured variety.

Cinerarias.—1st Prize, Mr. Ivory, of Peckham. *Pickwick*, *Regina Victoria*, *Seedling*, *King of Prussia*, *Emperor*, *Prince of Oldenburgh*, *True Blue*, *Laura*, *Nosegay*, *Eclipse*, *Triumph*, *Pride of Peckham*.

Roses grown in Pots.—AMATEURS.—1st Prize (for 12), Mr. Dobson, gardener to E. Beck, Esq. They were grown in slate pots, were from one foot six inches to two feet six inches high, and as regularly covered with bloom and foliage as could possibly be desired. The finest varieties consisted of *Earl Talbot*, rose colour; *Great Western*, bright rose, blotched with white; *Charles Duval*, flesh coloured; *Emerance*, white, with yellow centre; *Rouge Superbe*, dark rose colour; *Armosa*, *Devoniensis*, *Madame Neutman*, rose colour; and *Triumphant*.

2nd Prize, A. Rowland, Esq. *Jaune*, cream colour, with yellow centre; *Richelieu*, rose colour; *Vanilla*, *Eugene*, *Archduke Charles*, *Goubault*, flesh colour; and *Madame Plantier*.

NURSERYMEN.—1st Prize, Messrs. Lane and Sons. The plants were dwarf, clean, rich, and good, and in every respect superb examples of fine cultivation. The most distinct and desirable kinds were *Theresa Isabella*, cream colour; *Comte de Paris*, rose; *Edward Jesse*, rose; *Aricie*, flesh colour; *Speciosa*, rose; *Madame Laffay*, rose colour, very fine; *La Pactole*, light yellow; *Barbot*, fawn colour; *Armosa*, flesh colour, very fine; *Grand Capitaine*, *Taglioni*, *Bourbon*, *Theresita*, *Arago*, *Triomphe de Flora*, *Paris*, and *Psyche*.

2nd Prize, Mr. Laing, Twickenham. French and hybrid China varieties, kinds more difficult to manage in pots than the Chinese and Tea-scented varieties. They were, however, highly-creditable specimens. The most remarkable kinds were *General Allard*, dark rose colour; *General Lamarque*, dark velvety purple; *Beauty of Billiard*, dark red; *Belle Marie*, rose colour, very large; *Picotée*, rose, striped with white; *Nouvelle Bourbon*, rose colour; *Celestine* and *La Renommée*,—a fine white variety.

Collections of Cut Roses were shown by A. Rowland, Esq., Messrs. Lane and Sons, and Mr. Mitchell, nurseryman, of Piltown. In the collection of the latter gentleman were unusually fine flowers—*Aurora*, *Belle Allemande*, *Odorata*, *Princess Hélène*, *Archduke Charles*, *Original*, *Virginian*, and *Taglioni*. Mr. Mitchell also showed a new Rose, called *Lamarque Superbe*, and said to bloom as early as the *White Banksian*. It is a flower of fine proportions, of a delicate creamy-white colour, very large and very double, with a petal of fine substance.

Calceolarias.—NURSERYMEN.—1st Prize, Mr. Gaines. *Sunbeam*, *Ackbar*, *Magnet*, *Mag. Grandiflora*, *Candidate*, *Lady of the Lake*.

AMATEUR.—1st Prize, Mr. Stanley, gardener to H. Bevens, Esq. *Ariel*, *Warrior*, *Sir R. Peel*, *Fairy Queen*, *Compacta*, and *Village Maid*.

OF NEW PLANTS.—A new species of *Hindsia*, exhibited by Messrs. Veitch and Sons, of Exeter. A strong-growing plant with the habit of a *Melastoma*, blooming freely, producing flowers of a bluish lilac colour, and five times as large as *Hindsia (Rondeletia) longiflora*. A species of *Centrosema*, producing bright scarlet pea-formed flowers; should it produce flowers as numerous as they are beautiful, it will indeed be a splendid object. *Cereus crenatus*, exhibited by Mr. Booth, gardener to Sir C. Lemon, Bart. The plant in habit resembles *C. Jenkinsoni*; the flowers are large, of a palish-straw colour, tinged with green, and bears a close resemblance to the old night-blooming *Cereus*. A new species of *Hibbertia*, of shrubby habit, producing yellow flowers, raised from Swan River seeds, was sent by Mr. Noble, gardener to R. Mangles, Esq. From Messrs. Loudiges, a species of *Gaylussacia*—an evergreen greenhouse shrub, with deep rose-coloured flowers, like those of a *Vaccinium*, to which the genus is allied.

CLIMBING PLANTS.—Mr. Robertson, gardener to Mrs. Lawrence, *Manettia cordifolia*, trained on a large globular trellis, completely covered with branches and flowers; *Manettia bicolor*, trained spirally to the height of four feet, well

flowered; *Hardenbergia Comptoniana*, trained over a barrel-shaped trellis, was in profuse bloom. *Hardenbergia monophylla* *Zichya inophylla floribunda*; and *Gompholobium polymorphum*, a noble plant of *Stephanotus floribundus*, trained spirally; the trellis covered as thickly as possible with branches, and singularly thickly covered with bloom-buds, though but few of them were open. *Echites hirsuta*; several plants of *Gompholobium polymorphum* in good condition; and *Tropæolum tricolor* and *Jarrattii*. Mr. Frazer, two exceedingly well-bloomed plants of *Hardenbergia monophylla* and *longiracemosa*, trained over cylindrical trellises; *Zichya coccinea*, and *Gompholobium polymorphum*; *Sollya angustifolia*; *Philibertia grandiflora*, trained on a flat trellis.

Large Collections of 30 Stove and Greenhouse Plants.—1st Prize, Mr. Robertson, gardener to Mrs. Lawrence. Among which were superb specimens of *Erythrina crista-galli*, 9 feet high and 18 feet in circumference, in noble bloom; *Cytisus filipes*; *Boronia pinifolia*; *Pimelea spectabile*; *Chorozema Henchmanni*, 4 feet high and 12 feet in circumference; *Pimelea decussata*, 6 feet high, and as much in diameter; another, a dark variety, 18 inches high, and 3 feet in diameter; *Eriostemon myoporoides*, 9 feet high, covered with bloom; *Polygala bracteolata*; *Eriostemon buxifolium*; *Epacris ceræflora*; *Coleonema tenuifolium*; *Chorozema macrophylla*; *Hovea Celsi*, an old plant, which had been cut down and produced a number of branches from the bottom, which formed a dwarf bush; *Dillwynia floribunda*; *Aphelexis sesamoides*; a few species of *Daviesia*, with a profusion of orange and dark-red flowers; *Tabernæ-montana coronaria*, densely covered with its pure white deliciously-scented flowers; *Leschenaultia biloba*, 4 feet high, and 4 feet in diameter, regularly furnished with a great number of delicate azure-blue flowers.

Collection of Fifteen Plants.—1st Prize, Mr. Green, gardener to Sir E. Antrobus, *Leschenaultia biloba grandiflora*, dark blue variety, covered with bloom, and four feet high, the same in diameter. *L. formosa* covered with bloom; *Daviesia latifolia*, trained in a pendent form; *Gnidia pinifolia*; *Pimelea rosea* and *hispida*; *Chorozema varium* well bloomed; *Acrophyllum venosum*, in a very healthy condition, blooming freely; *Aphelexis humilis* in a fine state; *Rondeletia speciosa*.

2nd Prize, Mr. Clark, gardener to the Earl of Eldon, a large plant of *Boronia denticulata*; a double white *Primula*, *Eutaxia pungens*, *Chorozema Dicksoni*, and *Leschenaultia biloba*; *Chorozema cordatum*, nine feet in diameter; *Stephanotus floribundus*, *Zichya inophylla floribunda*, and *coccinea*; *Hardenbergia monophylla*, trained on flat trellises, densely clothed with flowers.

Single Specimens.—*Hindsia longiflora* loaded with bloom buds; *Xanthosia rotundifolia*, *Eriostemon buxifolium*, and *Erica depressa*. It was about two feet high, and two feet in diameter at the bottom, forming a cone densely covered with greenish-yellow blossoms. From Messrs. Veitch's, *Cumingia trimaculata*, sent by Mr. Frost; three plants of *Statice macrophylla*, in bloom, from Mr. Forrest; a very large plant, sheeted with bloom, of *Leschenaultia formosa*, was sent by Mr. Clark; a splendid specimen of *Leschenaultia biloba grandiflora*, by Mr. Falconer; another plant with paler flowers, by Mr. P. Tramer, gardener to Lady Alice Peel; and a pretty specimen of the dwarf variety, called *L. biloba nana*, by Mr. Green. From Mr. R. Johnson, gardener to J. Mallett, Esq., *Gnaphalium involucreatum*; *Stylidium odoratum*, from Mr. Robertson; new *Gloxinia* with crimson flowers edged with white, far the finest hybrid which we have seen, and merits universal cultivation, from Mr. Dobson.

ON GERANIUMS.—When I housed my Geraniums last winter, I accidentally placed side by side a Horse-shoe Geranium and one with variegated foliage; and this spring I find upon the latter one shoot having exactly the same foliage as its neighbour; and the young leaves which continue to make their appearance partake of the nature of the horse-shoe, and not of the parent Geranium. If some reader of the CABINET would tell me how this has arisen, and if the alteration will be permanent, or if, when the leaves change, the shoot will return to its old habit, I should feel obliged,

MARTHA.





1. *Episcia muscicola*. 2. *Phlox carnea*.

THE
FLORICULTURAL CABINET,

JULY 1ST, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

EPACRIS MINIATA.

THIS new and beautiful *Epacris* has been obtained by Messrs. Lodiges, of Hackney Nursery, London, from Van Diemen's Land; and they exhibited a fine plant, in most profuse bloom, at the London Horticultural Society's rooms, in Regent-street, on June 4th, for which the silver medal was awarded; and again at the show in the gardens, on the 15th. It was generally considered to be the gem of the new plants then exhibited; and a celebrated plant grower offered to give 100*l.* for it, should it be the only plant in the country, or to include any stock raised from it. The habit of the plant is somewhat after the manner of the *E. grandiflora*, not quite so robust, but more branching and bushy. It blooms very profusely, and appears to be likely to bloom for several successive months. It deserves to be in every collection of greenhouse or conservatory plants.

PENTAS CARNEA.

(SYNONYM *SIPANEA CARNEA.*)

THIS new plant belongs to the Pentandria class of plants, and the natural order Rubiaceæ. It is a soft-wooded shrubby plant, having somewhat the appearance of a *Melastonia*, the handsome delicate flowers being produced in numerous terminal cymes. It is supposed to be a native of Africa, and requires to be grown in a warm green-

house, or a plant-stove. It grows about a foot high, and we have seen it almost covered with heads of its lovely flowers. It appears to be very easy of culture, somewhat in the way of a *Ruellia*, and very likely to bloom through the spring and summer months.

ARTICLE II.

FLORICULTURAL GLEANINGS.—No. 15.

ADDITIONAL POLYANTHUS DESCRIPTIONS,

BY MR. WILLIAM HARRISON, SECRETARY TO THE FELTON FLORISTS' SOCIETY.

CRAIGGY'S TIMANDRA, *alias* CRAIGGY'S HIGHLAND MARY.

CRAIGGY'S Timandra, or Highland Mary, is a magnificent variety of this lovely tribe of spring visitors, and is a desirable addition to the most select collection. The tube is most beautifully elevated above the level of the eye, the eye itself is a fine rich yellow, the ground-colour a beautiful rich darkish crimson, and the lacing perfect upon a truss of ten pips. This truss took the fourth prize at the Felton exhibition, on the 7th of May, the first three being taken by very fine blooms of Pearson's Alexander, Maud's Beauty of England, and Clegg's Lord Crewe. It also won the medal at the Newcastle Horticultural Meeting, two years ago, beating Pearson's Alexander and the much-talked-of Nicholson's Bang Europe, and may therefore be fairly considered to have established its character as one of the finest varieties yet known. At Newcastle, this spring also, it carried off the same honour. It is a prolific trusser, my plant having thrown me up no less than four fine trusses, one of which is that commented on above. It is a diamond of the first water, and is rapidly finding its way into various parts of the kingdom, having been sold out, after its success this spring, at 10s. a plant. I cordially recommend it to the attention of the fanciers of the Polyanthus, as a new variety which has been well tested, and which has received "golden opinions from all sorts of people."

COLLIER'S PRINCE REGENT.

This is another pretty and very distinct variety of the red-ground class. The tube is finely elevated above the eye, which is of a pure stainless yellow, and very circular. The ground is a very bright rich crimson, which renders it quite distinct from all others, and the lacing light and very correct on the whole corolla. It is one of the most

attractive red-grounds that I have seen, being totally distinct from all others. It seems not to be known farther south, as I have not met with it in any of the southern catalogues; but it is highly esteemed in Scotland, from which quarter I received it.

NICHOLSON'S BANG EUROPE.

This variety has disappointed me. Its tube is pretty well elevated, and the eye a good yellow; but then the ground-colour is so very deficient in quantity, when compared with the large eye, that it can never stand high in the estimation of a good judge. Its lacing, also, has not been very correct with me; and if it does not bloom finer next season, I shall certainly never recommend any one to add it to his collection.

CRAIGGY'S SEEDLING, OF 1841.

There is something very distinct about this variety. The tube is beautifully elevated above the eye; the eye itself is a little too small, but a very clean yellow; the ground-colour an exceedingly dark velvety brown, closely bordering upon black, and the lace very regular, except in the middle of the "segments," where it sometimes does not quite reach the eye. Should it improve in this respect, it will be well worthy of preservation, as its ground-colour is so exceedingly dark that it renders it distinct from all others. Such it has bloomed with me this season, and I shall nurse it with care till I see its face again.

THOMPSON'S LORD MORPETH.

This is a beautiful variety, a seedling of this year. It took the seedling prize at Felton, at the first exhibition, and was raised by James Thompson, Esq., of Morpeth. It is a noble trusser, the specimen exhibited having ten or eleven pips, all "beautiful exceedingly," as the poet says. The tube is finely elevated, the eye a fine yellow, the ground-colour very dark, and the lace exceedingly correct. It very much resembles Maud's Beauty of England, and ordinary judges would be very apt to confound it with that variety. It is, however, so correct and beautiful, that it cannot fail to be a decided favourite with competing amateurs in future years.

Felton Bridge End, June 10, 1844.

ARTICLE III.

REMARKS ON FUCHSIAS.

BY AN ARDENT AMATEUR CULTIVATOR OF FLOWERS.

ABOUT thirty years ago a plant of the old and well-known *Fuchsia coccinea* came into my possession, and then became a pet plant with me, and so continued till the production of some hybrids eclipsed it in colours and size.

The attention given to importing new species, and the intermixture productions raised in this country, have rendered the entire family one of the most interesting of what are termed floral plants.

Two years since I planted out in the open ground fifty kinds. I put them out in a raised border, a foot higher than the walk in front, sloping gradually down to it, the soil being a sandy loam. I had them placed in two rows, the first being plants grown as bushes, and the back row consisted of standards, each about from three to four feet high. Many of these had been formed by grafting fine kinds upon the stocks of older ones, many of which I had possessed for years previously.

They united readily either in tongue or cleft grafting, or in-arched. The border was in the pleasure-ground, had a south aspect, and a fine dense back of common laurel and yew, which formed an admirable shelter. The border contained roses, both dwarfs and dwarf standards, the same height as the *Fuchsias*. I planted them alternately along; and, when in bloom, they were a most interesting and beautiful sight, and continued to bloom from June to the end of October. At the latter period I took up all the standard *Fuchsias*, keeping some soil to the roots, and placed them, closely pressed together, in a shallow box, filling up between the balls of roots with good soil, and tying the tops (erect) together. I kept them through the winter under the stage in a dry greenhouse, and when the first effort to push in spring commenced, I replanted them out in their positions in the border. The bush *Fuchsias* I left in the border through winter, without cutting down the tops; for I had discovered that, if cut off before winter, the hollows of the stems become filled with water in winter: the frost operating, &c., causes the shoots to rot and die, and the plants are generally destroyed through it.

In November I covered to the extent of two feet around each bush,

and amongst the shoots, with dry leaves to the depth of eight or ten inches, sprinkling them over, to secure them to the spot, with an inch of soil. This preserved every plant; and, for the last two winters, the *F. Baxteri* and *elegans* have retained their entire shoots uninjured, and now (April 25th) are pushing lateral ones to the very tops of the last year's wood. Early in the spring I cut off the dead tops. Nothing in the floral way could exceed the very interesting beauty of the whole, when in full bloom.

I planted a number in various sheltered places of the pleasure-ground, too; several where they were even shaded under trees; and they succeeded admirably, having the necessary attention of watering in extended dry weather. The flowers were more beautiful by being partially shaded from hot sun; and though it has been stated they like full intense sun upon them, I have not found it so; but, on the contrary, they bloom more beautiful when shaded for four or five hours during the middle of the day. This, too, applies to those grown in-doors; especially so with the light-coloured ones, they being apparently more delicate, and are much improved by shading, as stated above.

As *Fuchsias* can be procured in such numerous varieties of form, size, and colours, very cheap, and being so easy to keep afterwards, and increase by cuttings with the greatest facility, they deserve culture in every situation, whether in or out of doors. A friend of mine has a wire-fence hedge, consisting of *Fuchsias*, which are neatly trained to it, and cover it entire in summer, which has a most beautiful effect.

ARTICLE IV.

ON STRIKING CUTTINGS OF PLANTS.

BY MARY ANNE, DEVONSHIRE.

HAVING several shallow deal boxes, about six inches deep, I sowed in them, early this spring, various tender annual seeds, and placed the boxes upon the back shelf of a small plant-stove.

At the time when I sowed the seeds I had cuttings of several kinds of greenhouse plants I wished to strike, and it struck me that if a portion of fine sand was placed around the side of the box, the cuttings being then inserted firmly therein, they would probably take

root. Fearing that, thus experimenting, I might not succeed as I hoped, I divided the lot of cuttings, and inserted the other half in sand in pots, and placed them in the same situation as the boxes. Each were duly attended to afterwards; and the result was, far more of the cuttings struck in the box than in the pot, and a fortnight sooner. The porous nature of the wood, and the warmth it retains, contribute to promote the more certain and early rooting of the cuttings than those inserted in pots.

ARTICLE V.

REMARKS ON THE PINK.

BY FLORISTA.

I HAVE read Mr. Ibbett's further remarks in the last number of the CABINET, and I perceive he has not controverted the statement I have before made "that the shape of petal and constancy in lacing of the majority of northern pinks is surpassed, or even approached by southern ones." I again assert that I have not seen any southern flower possessing the form of petal and regularity in lacing which is invariably found in the northern sorts; but on the contrary, the southern flowers generally possess, in an eminent degree, the glaring defect of bad lacing, especially on the guard petals.

I observe Mr. William Harrison, of Felton Bridge End, Northumberland, coincides with my views on this point, and I cannot do better than quote his observations on the subject. They are extracted from an article written by him in answer to an inquirer, E. B., and will be found at page 110 of Vol. ix. of the CABINET, where, after giving a list of flowers, he proceeds to state that "E. B. will find many of the smallest kind, such as 'Westlake's Hero,' and some others, *lace best*, while those with very thick pods, such as 'Imsworth's Omega,' crown better, *yet they lace much more imperfectly*, and are so apt to burst their pods out at one side, that it is near akin to an impossibility, even with all the bandages and care that a competitor can use, to preserve them in a state fit to be presented for competition."

Mr. Ibbett states that he does not consider himself bound to answer any question, except in substantiating his remarks as positive facts; with all due deference to him, I certainly took it for granted that he had asserted a positive fact, when he stated he had supplied Yorkshire,

and other northern florists, with southern flowers; and I did not conceive I was stepping out of the way when I made the inquiry as to the whereabouts his customers resided, or if any floricultural honours had been awarded to them for their southern flowers. However, he has admitted the name of *one* of his northern friends, (the Mr. Harrison above alluded to,) and also favoured us with an extract from his correspondence; yet no mention is made of the prizes obtained by those flowers at the Felton show. I am, however, free to confess, that my questions, taken abstractedly, do appear impertinent; but coupled with Mr. Ibbett's assertion, that there was no difference of opinion between the northern and southern cultivators in the criteria of the pink, and the fact of his having supplied plants to northern growers, was certainly strong grounds for expecting a straightforward and satisfactory explanation. However, as he still insists there is not any variation of opinion existing, and favours us with extracts from the correspondence with Mr. Harrison, to bear out his remarks, I trust I may be pardoned if I adopt the same course.

Shortly after the remarks by Mr. Ibbett appeared in the March number of the CABINET, I requested Mr. William Bradshaw, florist, Sheffield, to favour me with his opinion upon my first paper in the previous December number, when he wrote to me as follows:—"I have read over your article on the pink in the CABINET for December last, more than once; for, if a subject is worth reading at all, it is worth reading twice. My opinion upon it is this, it was written with a view of bringing round a better understanding betwixt the northern and southern pink growers of what the standard of the pink should be, to obtain perfection; *there being a greater disparity in the ideas of each other on this flower than on any other in cultivation.*

"Now Mr. Ibbett denies this, and says florists are of one opinion; you may therefore inquire whether he knew a south-raised pink to win a prize at any of the following places in Yorkshire, namely, Sheffield, Leeds, Bradford, Halifax, Wakefield, and Huddersfield; a locality where the very essence of pink growing is carried on. I have had many south country pinks, but they have always turned out exactly as you describe them—a mass of confused petals, void of either shape or regularity in any respect." I omit the conclusion of my friend's epistle, because he is rather severe on Mr. Ibbett for his attack on the Lancashire florists.

In another communication which I received from a Staffordshire florist, whose opinion I also requested, he states, "I can with confidence assert that the article in the December number of the CABINET, signed 'Florista,' expresses the opinion and taste of the florists here. We have long since ceased to notice anything said or written by a southern florist about the pink, *as their notions and our's are so at variance.*

"You should inquire whether those parties were florists to whom Mr. Ibbett supplied pinks in Yorkshire, Felton, &c., and if so, how it was, none of the south country flowers won a prize at any of the northern exhibitions; for according to the 'Florist's Register' for the last several years, the Lancashire pinks were generally victorious.

"I would observe, that the article you have written in the CABINET, is quite in unison with the ideas of the greatest number of florists it has been my lot to meet with; and in conclusion, I beg to say, if Mr. Ibbett has ever sold pinks to any dealer in Lancashire, it has been to one who wanted to supply some gentleman's garden with some *to make nosegays of.*"

In addition to the preceding extracts, I am further corroborated in my assertion, that a difference in opinion does exist between the cultivators of the pink, by the remarks of Mr. Dent, and those of Mr. Conolly, inserted in the last number of the CABINET; besides which, Mr. Ibbett has unwillingly acknowledged the fact in his very ungenerous, I may say unjust, observations on Mr. Dent's article, in which, "at one fell swoop," he condemns a host of cultivators without considering the fact of the different criteria of perfection entertained by each grower.

It is admitted that the Lancashire florists have their standard of perfection for this particular flower, but the same may appear insignificant in the estimation of Mr. Ibbett, when opposed to the metropolitan one; and such observations he has hazarded does not redound much to his credit as a florist.

I beg to mention that I had some conversation last season with a southern commercial florist, who regularly attends the metropolitan exhibitions, and who had been a tour through the northern provinces for the purpose of inspecting their flowers; and when alluding to the properties of the pink, he candidly admitted there was abundance of room for improvement in the southern varieties, and observed that

the majority of the pinks cultivated in the neighbourhood of the metropolis were very defective in their lacing.

FLORISTA.

A Midland County, 12th June, 1844.

ARTICLE VI.

REMARKS ON GROWING PLANTS IN GLASS CASES,

BY CALEDONICUS.

(Continued from page 137.)

THE degree of humidity which is thus maintained is not, however, suited to all plants. Those which partake largely of a cellular structure, and possess a succulent character, and especially those which have fleshy leaves, bear best the atmosphere generally existing in these cases; whilst, on the contrary, its continued humidity is unfavourable, says Mr. Ward, to the development of the flowers of most exogenous plants, except such as naturally grow in moist and shady situations. If, indeed, we call to mind the vast quantity of moisture which many plants naturally exhale in the free atmosphere, and the check which their vegetation receives if the atmosphere continue for some time both humid and still, we cannot wonder that to such plants the moist air of these cases should be unsuited, and that many of them, placed in such circumstances, should, as it is said, "damp off." But others of a different character, whether growing in the soil, or suspended from the roof, find always sufficient moisture to support a healthy vegetation. Hence the supply of water given to the soil in the first instance, being secured from waste, is successively absorbed, exhaled, and condensed within the case itself, and made to sustain over and over again the vegetation of the same plants, without suffering either the soil or the atmosphere to become, at any time, too dry to carry on that process.

Condition of Plants, in regard to Heat, in close Cases and in the free Atmosphere.

The condition next to be noticed is that which relates to temperature. In the list of plants growing together in these cases are some which are natives of the tropics, others which have been brought from high latitudes, and others the growth of our own temperate clime. Now the varying effects of climate are well known so far to

modify the characters and habits of plants, as to bestow on each region its peculiar and appropriate vegetation. Even in the same latitudes climate is so changed by elevation above the sea, as to blend the vegetation of the tropical with that of the arctic regions; the same mountain which enjoys a tropical climate at its base being found clothed, at different elevations above the sea, with the vegetation of every other clime; the plants finding, in the different altitudes at which they grow, a climate that compensates, more or less completely, for the difference of latitude. It is a great merit in the plan of Mr. Ward, that it breaks down, in a great measure, these distinctions of climate, and the peculiarities to which they give rise; and enables us not only to grow together, in the same soil and climate, plants which naturally inhabited countries the most distant from each other, and flourished only in the most opposite climes, but to pass them from one extreme of climate to another, through all the intermediate gradations, with very little trouble, and without exposing them to any great risk. Thus, in the month of June, 1833, Mr. Ward filled two cases with ferns, mosses, and grasses, and sent them out to Sydney, where they arrived in January, 1834. They were there taken out in good condition, and the cases refilled with plants of that country in the following month, the thermometer, at the time, ranging between 90° and 100° Fahr. In the passage to England the temperature varied greatly, falling to 20° in rounding Cape Horn, and rising to 120° in crossing the Line. On arriving in the British Channel in November the temperature was again down to 40° . During the whole voyage of eight months the plants in these cases received no protection either by day or by night; neither were they once watered through the whole period, and yet were taken out at London in the most healthy and vigorous condition. Other cases, filled with plants of a higher order, have been sent to Alexandria, and thence forwarded to Cairo, where, after a two months' voyage, they have been taken out of the cases in a perfectly fresh and vigorous state. Exchanges of plants have been made, by means of these cases, between the professor of botany in this university and botanists in the island of Cuba; and the great establishment of the Messrs. Loddiges, at Hackney, is said to have sent out or received not fewer than 200 cases filled with plants, and generally with complete success.

In the opinion of Mr. Ward, it is owing to the "quiet state of the atmosphere surrounding the plants enclosed in these cases that they are enabled to bear the extremes of heat and cold to which they are exposed in these long voyages." In proof of the former position he refers to the well-known experiments of Fordyce and Blagden, who were able to remain, for a short time, in a close room raised to the temperature of 212° , or even 260° , Fahr.; and in support of the latter he appeals to the experience of Mr. King, who accompanied Captain Back in his late expedition to the arctic regions. That officer states that a difference of 70° or 80° , either from cold to heat, or from heat to cold, did not suspend his usual avocations in the open atmosphere when the air was perfectly still; but, though the temperature might be 40° higher, if it was accompanied with a stiff breeze, he did not stir from home. In like manner Sir Edward Parry found that a degree of cold sufficient to freeze mercury could be more easily borne when the air was perfectly calm, than when, with a stiff breeze, the temperature was 50° higher. "When the cold was $40\frac{1}{2}^{\circ}$ below freezing on the Fahr. scale," says Mr. Laing, in his late "Tour in Sweden," "it was quite practicable to prosecute the great cod-fishing in open boats in the Lafoden Isles within the arctic circle. The calmness of the air which accompanies this extreme cold is a kind of natural safeguard against its severity, the abstraction of heat from our bodies being then much less rapid. Such a hard winter," he adds, "is considered here a blessing next to a good crop; for the fisherman then gets out to sea, the landsman gets in his timber out of the depths of the forest, and the inhabitants of the most pathless districts obtain their supplies of grain, potatoes, &c., at little cost of transport."—(*Tour in Sweden*, p. 364.)

The powerful and rapid operation of wind in lowering temperature was shown in an experiment of Dr. Heberden, recorded in the "Philosophical Transactions" for 1826. He suspended a thermometer, previously raised to 100° Fahr., in an atmosphere at 31° , when a strong breeze prevailed, and in about half a minute the mercury fell not less than 48° ; whilst in an atmosphere at 30° , but without any perceptible wind, the fall of the mercury, previously raised, as before, to 100° , was only 19° in the same period of time. These facts, which doubtless apply to vegetable as well as to other bodies, due regard being had to differences in their conducting powers,

show that degrees of cold may be borne with impunity in an atmosphere that is perfectly still, which, if accompanied with a brisk wind, would be quite intolerable. That such stillness prevails in the plant cases there can be little reason to doubt; for though considerable motion may often occur in the air within them from variations in the external heat, yet, as little or none of this air escapes, its temperature, at any given period, must be deemed pretty uniform, and cannot be rapidly reduced as it is by the frequent contracts and changes of surface which go on in the free motions of an agitated atmosphere. In an atmosphere, too, which is so still, and in which changes of temperature proceed so slowly, tropical plants may, perhaps, bear, without injury, degrees of cold which would prove fatal if occasioned by the frigorific operation of free air in constant and rapid motion.

Condition of Plants, with regard to Light, in close Cases and in the free Atmosphere.

Of the great importance of light to vegetation Mr. Ward is fully sensible. "The success of his plan," he says, "will be in proportion to the admission of light to all parts of the growing plants. In every place," he adds, "where there is light, even in the centre of the most crowded and smoky cities, plants of almost every family may be grown" by this method. Seeds, it is well known, germinate best when buried in the soil, and entirely secluded from light; but when the young germ pushes into day, if light be still excluded, by inverting over it an opaque vessel, the plant shoots up into a long and feeble stem, is of a pale or whitish-yellow colour, and possesses little odour or savour. On the contrary, if the vessel be transparent, so as to transmit light, the growth is more vigorous, the young plant puts forth buds from its stem, and soon exhibits its characteristic form and colour.

These differences in form and colour, according as plants are grown in light or in darkness, were early noticed by Ray, and afterwards by M. Bonnet, in his "*Recherches sur l'Usage des Feuilles*," p. 210. In the year 1771 Dr. Irvine described still more minutely the influence which light exerts on vegetation. "Plants," says he, "though furnished with water, heat, and air, grow imperfectly, if placed in a dark box, and never contain anything but a watery juice;

hence the rays of light are in some way necessary to the perfect growth of vegetables; since, when deprived of this influence, they all agree in the nature and qualities of the juices they contain; nor have they that variety in colour and flavour which they had before. The most pungent vegetables become insipid, the highest-scented inodorous, and the most variegated in colour of a uniform whiteness, when secluded from light. Vegetables, too, which grow in a natural situation, readily burn when dry; but a vegetable reared in a dark box contains nothing inflammable."—(*Essays on Chemical Subjects*, p. 430.) In regard to colour and smell, similar observations were made by Professor Robison on tansy (*Tanacetum vulgare*) and other plants, which, when grown in darkness, were white, and afforded no aromatic smell; but, when brought into daylight, the white foliage died down, and the stocks then produced the proper plants in their usual dress, and having all their distinguishing smells.—(*Black's Chemical Lectures, by Robison*, vol. i. p. 532.)

[*To be continued.*]

ARTICLE VII.

ON BLOOMING DAHLIAS FOR SHOW.

BY MR. J. HALL, JUN., SHEFFIELD.

OF all the flowers that decorate our borders, or attract admiration and notice at the Floral exhibition, there is no flower that, in my opinion, has so great a claim to the favour and attention of florists as the Dahlia; and for this reason, there is no flower which has returned such speedy and ample recompense for every trouble and effort that has been bestowed upon its cultivation; for although but a comparatively short number of years have elapsed since its first introduction into Europe by Humboldt from the sandy plains of Mexico, where it grew an insignificant single flower; and a much shorter number still since it was first taken in hand as a florist flower, and cultivated with an aim to improvement; yet we now find it suddenly burst forth as one of the principal plants of the age, and attained to a degree of perfection scarcely equalled by any other flower.

Chacun à son goût, is the French adage, and of course every man has his own peculiar tastes as to the different merits and beauties of flowers; on this ground then I shall perhaps be excused for my en-

thusiastic partiality to the Dahlia. Oh! there is something about the Dahlia which in my eyes can be found in no other race of plants; a richness, a diversity, a brilliancy, and nobleness of form altogether unparalleled by any other of Flora's lovely offspring. It is a flower that is not only magnificent and dazzling as a border ornament, but it is one also that will bear the most strict scrutiny and examination; take up a perfect specimen, look at it, examine it! mark the beauty and regularity of its arrangement, petal over petal, tier over tier, all moulded and dispersed with the most perfect order and exactitude; look at its symmetry, its depth, roundness, and circularity; behold the exquisite shades and tints of its colouring! it is not only the mere perfection of some half dozen or half score petals which constitute many of our florists' flowers, but it is the perfection of hundreds, all modelled and pencilled with the nicest equality and similitude; and when we look upon and admire these beautiful productions of nature and art combined, we cannot refrain from breaking out in the oft-quoted and ever beautiful lines of Thomson:—

“ Who can paint
Like nature? can imagination boast,
Amidst his gay creation, hues like hers?
And can he mix them with that matchless skill
And lay them on so delicately fine
And lose them in each other, as appears
In every bud that blows? If fancy then,
Unequal, fails beneath the pleasing task,
Ah! what can language do?”

But I must cut short my enthusiasm, and return at once to the original design with which I set out, *i. e.* just to offer a few plain and practical directions for producing blooms in their most perfect attainable state. I do not know that I am going to bring forward anything new on this subject, or different from what is practised by perhaps nine florists out of every ten; but there is always a certain class of amateurs springing up, and what, in garden phraseology, are technically called “Young Beginners,” who, though they may be growing all the best varieties in cultivation, and treating them (as they think) with every kindness, yet, when they go to the floral exhibitions and see the complete superiority of the flowers there exhibited over their own, often return altogether discouraged and dissatisfied with their own comparatively meagre productions. It is for this class that I

intend the following remarks, which, if acted upon, will, I have no doubt, enable them to produce flowers as large and as perfect as any of those exhibited by old and experienced growers.

In the first place, Dahlias, when first planted, should never be placed in soil that is too rich, or that has been newly manured; for if so, though they will flourish and grow very luxuriantly, yet it is a well-known fact that all blooms produced by such plants are never so fine and perfect as those grown on stiff, strong plants, less luxuriant in habit. The plan I generally adopt, is to dig and trench the ground well in winter; then manure and set it with early potatoes, and afterwards plant the Dahlias among the potatoes (making a slight hollow for the water to lodge) and in about every other row, so as to leave the Dahlias four or five feet apart, nearer than which they should never at any time be planted. By this means the ground not only gets well prepared and replenished at the proper season, but an extra crop is secured, which, while it considerably detracts from the expense of Dahlia growing, does not, however, in the least interfere with or injure them. If the soil be poor and exhausted, I sometimes dig out a hole and fill it with fresh loam or vegetable mould. As soon as the plants are set, water should be given them (if the weather be dry), till they have taken fast hold of the ground, after which no more should be applied until the blooming season, when they should be copiously watered every time they appear to require it. Many people think that by continued watering the plants are sure to flourish; so they will, and be drawn up long weakly things that will never produce a good bloom; many thus fall into the very common error of "killing with kindness." It is a very prevalent practice also with inexperienced amateurs to cut and prune their plants till they are mere skeletons, thinking that by this means all the strength and power of the plant will be concentrated in what is left; but this is very erroneous, as it is well known, or ought to be, that plants, something like animals, derive support from all their different parts and members, and that the unnecessary amputation of these parts weakens and deteriorates the whole plants. There are, however, some plants which require a little pruning, such as have branches, for instance, that crowd and are in each others way,—these ought to be carefully taken off, and no more, but as soon as the plants begin to show buds I would then begin to thin them a little, say, for

instance, two out of every three; this, while it will not injure the plant, will have the desired effect of making those flowers that are left finer and better than they would otherwise have been. A slight top dressing of old cow manure should also be given them at this period, as it is then that the plants require aid and support.

As soon as the flowers begin to open, they at once become the prey of numerous species of vermin, which, if not carefully attended to, will utterly destroy all the blooms as they expand; the most formidable of these is the earwig, which, if suffered to remain, will devour more or less of every petal in the flower. The best recipe that I can give for this is one that I once heard tell of as being discovered by a man who made a great noise about it, and spread it far and wide through the land as an infallible remedy (which it really was); the recipe was sent out at a high premium in sealed envelopes, enclosed in a great many papers, and was this, "Catch them and kill them." This is, in fact, the only mode that I am aware of, at all efficacious for the destruction of this insect; it is best performed by having small pots on the stakes with moss inside, and going round morning and evening to examine them; the stakes also should be examined, for if there be any hole, crevice, or hollow under the bark, they are sure to take refuge there. These pests should always be looked after as soon as possible, for one killed in the early part of the season is worth a score killed later on. Another troublesome foe is the slug and caterpillar, which should be conquered in the same way; but probably the most difficult of all to get rid of is a little insect called the thrip, which, when it once gets upon a flower, seems at once to extract all its colour and vitality, and the blooms rapidly languish and die beneath it. The best remedy I have yet found for them is tobacco water, which, if frequently applied, will considerably check, if it does not altogether destroy them.

But one of the grand secrets in producing the large, round, highly crowned flowers we see at shows, is in the art of shading and covering; there are some people, I know, that object to this system, saying that it is unnatural, artificial, and so on; but I say if a flower can be made more beautiful, and more perfect by artificial methods, it is right and proper to do so. There are various plans of effecting this purpose, the most common of which is, simply to shade them from the solar ray with a box or plain board; this is quite sufficient with

the self-coloured varieties, but with the more delicate and edged ones, another process, called covering, is essential. This is done by first driving a stake by the flower intended to shade; then taking a flat piece of board, about a foot square, with a slit sawn half way across, just wide enough for the stalk of the flower to pass, and fastening it by some contrivance to the stake just at the height where the flower is; then drawing the stake through the slit, and letting the bud be just elevated so much above the board as to prevent the opening leaves from touching it; then covering it with a flower-pot, and allowing it to remain till fully blown. The slit also should be well packed with wool or cotton to hold the flower in its place, and keep out the insects. The sun, acting upon the earthenware, will have the tendency to bloom it faster in this way than otherwise, but if the flower is wanted to be kept, a damp cloth should be thrown over it, and air given underneath.

There are various other methods of shading Dahlias, but as these are the most general and effectual, I shall not attempt to enlarge on them at present, feeling satisfied that the plan I have laid down will, if adopted, at all times enable the "Young Beginner" to compete successfully with his elders at the Floral Exhibition.

ARTICLE VIII.

REMARKS ON BUDDING AND GRAFTING THE RHODODENDRON, ROSE, &c.

BY CLERICUS.

OBSERVING in a late number of the CABINET some remarks on increasing the Rhododendron and similar shrubs, as well as Roses, &c., and now being the season for operation, has led me to forward the following observations on the process of budding and grafting.

The success of budding depends greatly on the state of the stock; if this is growing vigorously, and the bark flies up quite freely on the introduction of the budding knife, the budding will hardly fail of success; if the young shoots of the stock are nearly ripened to the top, the bark is in the way of beginning to fasten to the wood; or if the shoots are small and weak, and the plant unhealthy, the bark most likely has not risen at all; in either case, the bark will not rise freely from the incision with the handle of the knife, the sap is not circula-

ting freely, and it is in vain to attempt introducing a bud by forcing up the bark. The bud should be chosen from a vigorous young plant; the shoots from old trees have not so much sap or vitality; and the bud should be chosen when the bark is beginning to assume a ripe colour; if too ripe, it does not rise so freely from the bark, and vitality is beginning to get dormant; if too green it is apt to perish before uniting to the stock. The buds should be tied as soon as possible after the operation, to exclude air from the wounds; but if the stocks are vigorous, drawing very tight is not of so much consequence here as in grafting. When buds are nearly ripe, in which state they succeed best, the piece of wood which unites the bud to the branch is apt to break off far in, and leave the appearance of a hollow eye. Some operators attach great importance to this, and say that, though the bark live and unite, the bud will not push in the spring; but I have frequently inserted buds with very hollow eyes, and marked them for the purpose of experiment, and they always pushed as well as the others; the sap of the tree should soon fill this hollow. Much of the success also depends on having the edges of all the cuts smooth, and the operation done as speedily as possible; if the edges of the wound are rough, the vessels of the liber, where the living principle is most active, are bruised and lacerated; and, if long exposed to the air, they begin to spoil. The common method of extracting buds is to cut away a piece of the shoot, and afterwards extract the wood; but this destroys the very sharp edge of the knife, and the cut will invariably be found more or less rough. The bark should be cut all round the bud to the shape and size wanted, and the thumb pressed against the cut portion, at the side of the bud; if the shoot is growing and healthy, the bud will separate freely, and there will be no laceration of the edge; the bark will be cut as smooth as a piece of cheese, and the edge of the knife will be kept sharp, as no wood needs to be cut through. As far as mechanical operation is concerned, this cutting smooth is of far more importance than any method of inserting the bud; if the bud does not squeeze freely off the branch with the side of the thumb, it is very doubtful of succeeding.

Much of the success of grafting depends on keeping the alburnum, or newest layers of wood and liber, or inner bark of the stock and graft, closely united and pressed together, till a complete union takes place; it is in the bark and soft wood that the development is most

rapid, though all the cellular tissue is capable of uniting. For this purpose they should be as near of a size as possible, and the slice from each should be very small, allowing as much of the alburnum as possible to remain on both; it is there where the sap rises; and if the slice is made, either in graft or stock, through to the heart-wood, the ascent of the sap is stopped, except by the edges. The graft should not be put on till the stock has commenced to grow, when the new layer of inner bark is about to be formed, and the efforts to unite commence; both stock and graft are apt to dry and shrink, or cling, and thus part from one another, if done long before the commencement of growth. The grafts should be taken off before they begin to spring, and their ends inserted in damp earth; as they will cling more if taken off after they have begun to swell by growth, and thus part more from the stock. Also, if the living principle is set in motion by the commencement of growth before taking off, and then checked by taking off, or by cold weather succeeding warm, the graft will perish more readily than if the growth of the stock had commenced first, and the graft been fed from the union of the tree; for this purpose, the grafts of deciduous plants should be taken off before they begin to swell in the bud; as, if growth has commenced, it will proceed further in the graft, though off the plant, and be hurtful. Neither seeds nor cuttings will perish near so readily when in a dormant state, as when life is set in motion, and then checked. To prevent clinging or shrinking, choose well-ripened wood. The young shoots of young trees, or the bottom growths of old trees, are generally more vigorous than the extremities of old trees, vitality is most active in these young shoots; but in grafts that have the young wood soft and apt to cling, choose strong, vigorous, two or three years old wood. Many grafts that succeed with difficulty, if the grafts are retarded, the old wood chosen, and the stock allowed to spring before grafting, will succeed in this way when they will do so in no other. Much of the success, however, depends on the warmth of the weather keeping the sap flowing. Moist warm weather is good, but heat is the principal requisite, the stocks being already established; and wet weather is very often cold in spring. The mechanical part of the operation depends on the slopes of the cuts being made to fit one another exactly, which is easiest done by choosing the slopes of the graft to fit those of the stock as nearly as possible, by thin slices being

taken off each ; by using a thin-backed, broad-bladed, sharp knife ; and by drawing the hand straight without twisting when making the cut. The graft and stock must be hard pressed together, without shifting, in the tying ; which is best done by a smart hitch or pull, every time the wet bast ligature passes the graft in the act of tying, and not by continued pulling. The above remarks apply chiefly to whip grafting, which is the most common. Crown-grafting is that most practised for old trees ; and the necessity to take off the grafts, and allow the stock to push, is here absolute, as the operation cannot be performed properly till the bark rises freely from the stock. When the bark rises freely, success is very certain in this way, if the grafts are strong and not sprung ; as the flow of sap causes union to take place speedily, and the strong bark keeps the graft in its place. If the bark and wood of the stock do not separate freely, it is in vain to attempt grafting in this way. Grafting soft evergreens, as Rhododendrons, Daphnes, &c., is best done by waiting till growth has fairly commenced, either the first, pushing in spring, or the second, in summer, and inserting the graft in the manner of a bud, by opening the bark of the stock. The grafts of these must not be taken off till needed, as they are not dormant like deciduous grafts, and more apt to perish. The bark will not rise till growth has fairly commenced, and dull, cloudy, moist, warm weather suits best, if dry and sunny, they should be shaded. With evergreens a few leaves are left on the top of the stock to draw up the sap, and to carry on the growth ; it is useful in the grafting of all soft evergreens.

Increase by layers is often adopted with Evergreens, and is generally successful where circumstances admit of it. Take care to tongue the layer close under a side bud, and keep the tongue quite open, and the part above the tongue to be made as perpendicular as possible, the two being at right angles, which causes the sap to accumulate, and so form a swelling of cellular matter at the bottom of the tongue, from which the roots proceed. A little fine sand put round the cut prevents the wound corroding in heavy soils, and by pressing on the bark, as in cuttings, promotes the rooting. The layer must be kept steady by a peg, but where the shoot is long and likely to be shaken by wind, &c., that must have a support to be tied to.

ARTICLE IX.

REMARKS ON THE ORIGIN OF DOUBLE FLOWERS.

BY MR. WILLIAM TEMPLE, OF MOUNT PLEASANT, LIVERPOOL.

CONVERSING with a friend a few days back on the most certain way to obtain the greatest quantity of double Stocks from seed, we were led to speak of the origin of double flowers in general, and that generally speaking the cause was little understood. The result of our conversation induced my friend to transmit me the following remarks upon the subject, which, after reading, I forward for insertion in the CABINET, thinking, when the cause is generally understood, attention will be additionally given to it in a practical manner.

A highly concentrated state of the sap in plants induces the production of flowers, and before the petals, pistil, and stamens can be formed, it must be perfectly elaborated; thus perfected, they have a higher state of existence than the leaves, which is the lowest, stem petals, after which the pistil and stamens, and finally the fruits. This perfect elaboration can only be obtained by a due degree of light and height, &c.

When, however, double flowers are produced, it is generally by a change of the higher parts of the existence, of stamens and pistils into the lower state of petals; and the more the plant is checked by a poorer soil, and a sparing supply of water for a period, the more likely, by giving luxuriant food and treatment afterwards, to bring back the pistil and stamens to a grosser and lower stage of existence to petals, and thus produce double flowers. The greater the check given, the more powerful will be the effect of after luxuriance when shifted into a rich soil, placed in due heat, properly supplied with water and every requisite attention, with the greater vigour there will be a flow of crude sap, and the flower is not only then produced larger, but the crude sap has a tendency to lower the state of existence, and the stamens and pistils being higher in the scale of existence, are reduced to the more inferior condition of petals. Sometimes the scale of existence is so far reduced, that what had been originally the nucleus of a branch, but elevated by elaboration acting on the vital energy into the state of petals, stamens, and pistils, is not only reduced to petals and become double, but will shoot again into a branch, as we have had instances with Brown's Superbe, and other roses. The double *Lychnis diurna* has the stamens changed into red

petals, and the pistil into green leaves, and the quantity of each greatly increased. In the *Rhododendron* the flowers are produced from the terminal bud of the shoot ; if the summer and autumn have been warm, the bud swells larger, and we have a branch of flowers instead of a branch of leaves the ensuing spring ; but it is always difficult to say, till the bud is evolved, whether we shall have leaves or flowers. In raising double or full flowers from seed, therefore, we should carefully guide our attempts by experience ; in procuring the seed, we must get it from the *most double flowers we can*, as the progeny always bears more or less resemblance to the parent. In the *Dahlia* the flower is not, strictly speaking, full ; it belongs to the compound class, in which a great number of florets are arranged on one common receptacle ; in single dahlias, and other flowers of this class, the ray or outer row of florets has the petals fully evolved and coloured ; in the florets of the centre or disk, the petal is only in the state of a small tube, inside of which the stamens are situated. Rich cultivation forces these tubes to assume the state of coloured petals ; sometimes tubular, as in the quilled dahlias, and sometimes flosculose or flattened, as in others ; sometimes the stamens are changed into petals, sometimes they are abortive, but generally both these and the pistillum are unchanged, and hence there is little difficulty in getting seed from dahlias. Plants that are full of double flowers at one time, when the plant is vigorous, will change and come more single when checked by bad weather, or when the plant begins to ripen and get woody. To return to the raising of seedling double flowers. Roses, Pinks, Carnations, and *Ranunculus* change the stamens only into petals, and sometimes these are only partially so in very full flowers, and seed is comparatively easy to be obtained from them ; we should, as before observed, select from the fullest and best flowers. In the *Anemone* the pistils are changed into petals, the stamens unchanged ; seed of these can therefore only be obtained from flowers not perfectly full, or by impregnating flowers nearly single, with a tendency only to fulness, with the anthers of full flowers. In Stocks and Wallflowers both stamens and pistil are changed into petals ; seed cannot, therefore, be had from full flowers in these sorts, and the only resource we have is to save seed from those in which a tendency to fulness has commenced, by having a petal or two more than usual. In growing Stocks from seed they will be more likely to be double, if the plants are checked first by a

deficiency of nourishment, whether of water or manure, and afterwards excited to luxuriance by a plentiful supply; and the greater the change, the greater the likelihood of success. Old seed, or seed dried, gives a check; we have had instances of old neglected seed, which had been reckoned very inferior when the seeds were fresh and new, come almost every plant double, when a little had been left over and sold when old. The seed for raising double flowers of any sort can *hardly be too old*, if it will grow at all; and the weak plants, first stunted and then luxuriated, will be found most successful; the seed should be sown on heat, and the weak plants *most cared for*. After flowers have once been produced double or full, the habit of coming double will be retained, if kept so by rich cultivation. When any variety has begun to sport, the plants should be raised off those individuals which have not yet sported, as the sporting habit might become fixed; and this should be carefully guarded against, by propagating from those roots that show the fullest flowers. The double China Asters, Feverfew, Rockets, Daisies, &c., come double in the same way as Dahlias. The double Snapdragon is similar to the Stock. Campanula, Cistus, the Thorn, and most other double flowers, are similar to the Rose. Thus, by attention, have many of our English plants been induced to produce double flowers, and so, no doubt, would be the result with others, both domestic and foreign, if attention was duly paid to the subject.

ARTICLE X.

ON THE PRACTICE OF THE POT-CULTURE OF PANSIES.

BY THE SECRETARY OF THE BOXLEY HEARTSEASE FLORAL SOCIETY.

IN advocating the practice of growing, blooming, and showing Pansies in pots, I by no means deny the propriety of common culture in the open ground, and showing cut flowers, but do insist upon the propriety of both methods, as they are equally important. The latter may insure more vigorous plants and a greater profusion of blooms, with little care; but I have seen equally fine and more perfect blooms when grown in pots, receiving protection, &c. All Pansy growers have not equal means at command; arrangements should therefore be made for showing, so as to give all an equal opportunity of competing. I therefore advocate both methods of culture and exhibiting.

And I now give a brief summary of the very successful result of my own experience in pot-culture, and which I strongly recommend to others.

Commence with small plants, having short stout stems and small pots. They require the same rich kind of soil or compost for pot-culture as they do in the open ground, but more frequent watering (excepting their inactive state in the winter season, when they will need but a very moderate supply) which should be with liquid manure, or foul soap-suds, to be carefully poured into the pot without sprinkling any upon the foliage, and shifting into larger pots as the plants advance in size; also frequent top-dressing with leaf-mould, well rotted dung, or the ashes of burnt weeds, vegetables, or wood. They must be entirely defended from the powerful rays of the sun. They require the natural free air, dews, and rains, until the buds are nearly their full size and begin to expand, at which time the blooms should be defended from wet and winds. At all times they require a free drainage at the bottom of the pot.

The above is written at the request of a Pansy grower, who being so pleased with the results of my practice, desired me to give him my mode of treatment in pot-culture, as he intends to commence.

PART II.

LIST OF NEW AND RARE PLANTS.

ANTIRRHINUM MAJUS FLORA PLENO. DOUBLE BLOOD-COLOURED SNAP-DRAGON. There have been double Snap-dragons in our gardens for some years, viz., rose-coloured and white, but this is the first blood-coloured that we have seen; it was raised by Mr. Young, Nurseryman, of Epsom, in Surrey. All the tribe are well deserving a place in the flower garden, and the one now figured, especially so.

BARKERIA SPECTABILIS. SHOWY BARKERIA. Orchidææ. Gynandria Monandria. (Bot. Mag. 4094.) Its native country is Guatemala; it has recently bloomed in the collection of Mrs. Wray, of Cheltenham. The flowers are produced in long terminal peduncles of eight or ten in each. The flowers are about four inches across. Sepals and petals of a beautiful rosy-lilac. Lip-lilac, spotted with dark chocolate, and having a yellowish centre. Baskets filled with moss, or blocks of wood, are found to be most congenial to the roots of Barkeries; in peat, they quickly perish.

CATLEYA INTERMEDIA VARIEGATA. INTERMEDIATE VARIEGATED LIPPED. (Bot. Mag. 4085.) From Brazil; the sepals and petals of a lilac-purple, lip white, and a yellowish centre, lamellæ red. A very pretty variety.

CEREUS PITAJAYA. VARIABLE. (Bot. Mag. 4084.) In the collection at the Royal Gardens of Kew. It is an erect growing species. The flowers are large somewhat of the size of *C. grandiflorus*, the night-blooming; white, with a tinge of sulphur.

CEREUS CRENATUS. CRENATED TORCH THISTLE. (Bot. Reg. 31.) Cactaceæ. Icosandria Polygynia. It belongs to the winged section, as the speciosus, speciosissimus, &c. The flowers are about five inches across, of a pale cream colour. The plant was sent to G. N. Skinner, Esq., from Honduras, to Sir Charles Lemon, Bart., M. P., and it has bloomed in the collection at Carlew. It was exhibited at the show held in the London Horticultural Society's Garden, at Chiswick, in May last, and much admired.

CEROPEGIA OCOLATA. OCELLATED. (Bot. Mag. 4093.) Asclepiadææ. Pentandria Monogynia. Sent by Miss Jones, from Bombay, to the Royal Gardens at Kew, where in the stove it has bloomed. It is a climber, producing its flowers in umbels of five or six in each. The corolla is two inches long, tube pale yellow-green, the upper portion deeply eye-like spotted. Corona double orange-yellow.

DISA CORNUTA. HORNED FLOWERED. (Bot. Mag. 4091.) Orchidææ. Gynandria Monandria. (Synonym *Orchis cornuta*) From the Cape of Good Hope, in 1843, to the Royal Gardens of Kew, where in a cool stove it has bloomed. The flower stem rises about a foot high, and the spike of flowers is about half the length. The blossoms are of a beautiful mixture of green, white, and purple. Each blossom is about an inch across. It is a very interesting and pretty flowering plant, well deserving cultivation.

EPIDENDRUM PTEROCARPUM. WING-FRUITED. (Bot. Reg. 34.) Orchidæææ. Gynandria Monandria. A native of Mexico. The flowers are produced in a short spike of six or eight in each. A separate blossom is about an inch across. Sepals and petals reddish-brown; the labellum yellow, with the lip of a cream colour.

LÆLIA SUPERBIENS. GORGEOUS. (Bot. Mag. 4090.) Orchidæææ. Gynandria Monandria. Discovered by Mr. Skinner in Guatemala, who states that he first discovered it in the village of Surupango, planted by the Indians in front of their doors. It exists in immense quantities in its native habitations growing out of the crevices of rocks, and sheltered from north winds. Some of the plants Mr. Skinner there discovered had bulbs of the height of twenty-two inches, with flower stems four yards long, bearing upwards of twenty blossoms. Each flower is about five inches across. Sepals and petals of a pretty lilac-purple colour. Labellum, rich yellow-streaked with deep purple, and having a broad margin of crimson-purple. It is a splendid blooming-plant, well deserving a place in every collection.

LONICERA DIVERSIFOLIA. VARIOUS-LEAVED FLY HONEYSUCKLE. (Bot. Reg. 33.) Caprifoliæææ. Pentandria Monogynia. A hardy middle sized shrub, from the mountains of the north of India. It blooms in May and June. The flowers are of a bright yellow colour. There is another new species from India in the Garden of the London Horticultural Society, having yellow flowers stained with purple.

LEUCOCORINE ALLIACÆÆ. GARLIC-SCENTED. (Pax. Mag. Bot.) A pretty flowering bulbous perennial greenhouse plant, blooming profusely in the early spring months. It has been grown very successfully too in the open border. Each blossom has a narrow tube about three inches long, and a deeply divided limb, an inch and a half across, blue, with a paler centre.

MORINA LONGIFOLIA. LONG-LEAVED. (Bot. Mag. 4092.) Dipsacæææ. Dianthia Monogynia. A native of Northern-India, from the Himalayas, &c. A hardy herbaceous plant. The flowers are produced in involucre, in long spikes, each blossom is about three quarters of an inch across of deep rose colour. A very interesting flowering plant, well deserving cultivation.

GOMPHOLOBIUM HENDERSONI. (Pax. Mag. Bot.) Leguminosæææ. Decandria Monogynia. Seeds of this very pretty species were sent from the Swan River colony, by Captain Mangles, R. N., and the plant has bloomed in the collection of Messrs. Henderson's, Pine Apple Nursery. This species has not, like *G. polymorphum*, long slender shoots, but is a small dwarf bush, of a stiff rigid habit. The flowers are a trifle less, but are produced in profusion, of a rich orange-red, with a yellow eye. It well deserves a place in every greenhouse.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ROSE TREES INFECTED WITH GREEN FLY.—My standard, as well as some of my dwarf Roses, are again pestered to an amazing extent with the Green-fly. What is best and easiest mode of destroying them without doing so to the rose-buds and foliage. An immediate answer will oblige
AMICUS.

[A strong infusion of camomile has proved effectual, having some in a vessel into which the shoots are bent and held for a moment. So with tobacco-water. Snuff, in a finely-powdered state dusted over has, too, proved successful, or smothered with smoke. We have seen a puddle of earth and water to the consistence of cream taken in a pail, and the ends of the shoots affected dipped in; this formed a coating over them and smothered them; it soon became dry and enveloped them. In a day or two it was washed off by means of a garden engine or syringe, soon dispelling it, and the plants were healthy all the season after.—CONDUCTOR.]

ON AURICULA SEED.—I have this season, for the first grown, a collection of Auriculas and Polyanthus's, both have a quantity of seed vessels, when it ripens, how am I to proceed. A reply will confer a favour on

A COUNTRY CURATE.

[When the seed is ripe, which will be by the end of July or August, save it, not in a hot situation, but dry, till the February following, then sow it in shallow pans, raise in moist heat, as soon as up, remove to a somewhat cooler situation, and when the plants are strong enough, take them up entire and pot into smaller pots and treat as the Auricula usually is. See excellent articles in former Numbers of the CABINET.—CONDUCTOR.]

ON LISIANTHUS RUSSELLIANUS.—What affinity has the Lisianthus Russel-
lianus? By informing me you would greatly oblige
Cambridge.

T. N. C.

[It is of the natural order Gentianæ, nearly the form of the dwarf spring flowering Gentian, but about three times the width of that flower. A figure is given of a smallish sized bloom in a former Number of this work.

CONDUCTOR.]

ON DOUBLE VIOLETS, &c.—A Subscriber begs to know if there are such plants as a bright scarlet double Violet, also a double white Hepatica, and where they are to be procured; also where the double white Violet and double Lily of the Valley are to be purchased.

BURCHELLIA CAPENSIS.—Observing a remark in the May Number on grafting the *Luculia gratissima* on *Burchellia Capensis*, I am desirous to know where, and at what price, I can procure plants of it.

[At most of the principal nurseries, and the price about 1s. 6d. each. If obtained it readily increases by cuttings of the roots, pushing from the joints.

CONDUCTOR.]

REMARKS.

REMARKS ON THE CULTURE OF ORCHIDEOUS PLANTS, BY JAMES BATEMAN, Esq., as given in his very valuable Work published under the title of "The Orchidaceæ of Mexico and Guatemala.—The work far exceeds all others in its entire completion, and with each figured specimen are valuable remarks on the culture, but the condensation of the general mode of treatment Mr. Bateman

details as follows:—"And now as respects the leading points in cultivation. Supposing the plants established in a suitable house—which is an indispensable preliminary—the following rules will be found to contain all that is most essential for their successful management.

"1st. The plants can scarcely have too much light or too little sun.

"Light prevents mildew, strengthens the fibre, and checks the disposition to throw up a succession of weakly shoots, which are quite incompatible with the production of flowers. The sun, on the contrary, scorches and turns the leaves yellow, especially when it first begins to shine powerfully upon plants that have just left their winter quarters. In order to secure as much light as possible, many species should be suspended in the air from rafters or chains, some being placed on blocks of wood (cork-wood is the best), or fragments of cocoa-nut husks, and others in baskets of wire or wicker-work filled with moss and broken peat, or in pots with pierced sides. The latter answer perfectly for plants (*e.g.*, the *Saccolabiums*), which are of slow growth, and thrust their roots into the air. Baskets answer best for *Stanhopeas* and the like. To prevent injury from the rays of the sun, shading is of course necessary, but this should be so arranged as to be easily removed, as it ought not to be continued for more than ten or twelve hours on the very longest summer's day. Exotic climbing plants introduced sparingly are advantageous, and have a good effect.

"2nd. Take care of the roots.

"On the health of the roots everything depends. The winter is with them the most critical season, for if suffered to grow too dry they shrivel up and perish; if too wet they rot. Much, of course, depends upon the mode in which the plants are potted, and which should be such as to admit of their readily parting with all superfluous moisture; and to secure this nothing is better than a plentiful admixture of broken potsherds. High-potting is now so generally practised in good collections, that it is needless to insist upon its importance. Rapidly-growing plants, such as the different species of *Phaius*, *Gongora*, *Peristeria*, *Stanhopea*, &c., require to be broken up and entirely repotted every second or third year; on the other hand, there are some air-plants, &c. that may remain undisturbed for five or ten years together.

"3rd. Beware of noxious insects."

"*Orchidaceæ* are more particularly exposed to the attacks of the following insects:—woodlice, crickets, and cockroaches, the thrip, a minute woolly white scale, and a diminutive species of snail; the two last being infinitely the most pernicious. Woodlice are easily kept in check by placing the plants on saucers, or within troughs filled with water, especially if the valuable aid of a few toads be called in. The '*Oniscamantic Epiphyte-stand*,' invented by Mr. Lyons, is an ingenious and, no doubt, effectual way of accomplishing the same end. It is made by merely fixing a forked branch, or block of wood, to the raised centre of a massive saucer or feeder, which, being kept constantly full of water, forms a sort of foss—impassable to vermin—round the plant it is intended to guard. Crickets and cockroaches are very fond of flower-scapes, and to be dreaded accordingly. Red wafers scattered over and among the pots are to them very tempting baits, and, if swallowed, the red lead they contain acts as a poison, but these pests are best destroyed by the mixture recommended for the white scale. The thrip does not do much mischief, except where plants are either neglected or grown in too hot and dry a temperature. It usually first appears among the *Catseta*, and is to be removed by careful washing. Small snails abound in some collections, while in others they are unknown; it is difficult to conjecture whence they come, and all but impossible to eradicate them entirely. They batten upon the tenderest roots, such as plants put forth when they are just beginning to grow, and if not kept in check would speedily produce irretrievable mischief. Lettuce-leaves, slices of potato, turnip, &c., are very enticing; and while they divert the attention of the enemy from the roots, they also afford an opportunity of capturing him. The collections which are watered exclusively with rain-water are the least infested. But the worst plague of all is the small white scale, which, in its first insidious approaches, appears only as a white speck upon the leaves, then covers them with a soft whitish down, and finally kills them. For this the following remedy will be found efficacious; *viz.*, dissolve

half a pound of camphor in a pint of spirits of wine; the result will be an impalpable powder, to which add one pound of Scotch snuff, one ditto pepper, one ditto sulphur, and keep in a bottle (carefully stopped). This mixture should be dusted over the infected parts, and repeated whenever or wherever the enemy shows itself. If persisted in for some time, the mixture rarely fails to effect a perfect cure; and it has the further good property of acting as a most deadly poison to cockroaches, &c., which have quite disappeared in the collection at Knypersley since this mixture came into frequent use. Besides the above annoyances, the red spider and the brown scale are frequently injurious, but never except in cases of gross neglect.

“4th. Give the plants a season of rest.

“Without a season of rest most plants will not flower at all, and others do so very imperfectly. It is easily accomplished in a variety of ways, either by moving the plants from the warmer to the cooler end of the house; or by diminishing the quantity of water, or by placing them in a cooler house. Even exposure in a hot, dry atmosphere, although it scorches their leaves, not unfrequently throws them into vigorous flower. Plants from the East Indies, and from other climates, where the extremes of drought and wet are not felt so severely as in Brazil or Hindostan, require a season of rest proportionably short, and of a less decided character.

“5th. Attend to the condition of the air.

“In winter 60° to 65° is a wholesome temperature for most of the species; in the summer it may rise to 70° or 75° , or even higher if derived from the heat of the sun. Where there are two houses, the warmer one should not be lower than 70° even in winter; but, fortunately, there are comparatively few kinds that insist upon so hot a berth. The air should always be soft, and nearly saturated with moisture. The latter should, however, be prevented from dripping upon the plants as it condenses; and this is easily effected by fixing a small copper-pipe, or piece of channelled wood, under each rafter and sash-bar, to catch and carry off the water.

“6th. Do not over-water.

“This a beginner is very apt to do, and a grievous fault it is. When plants do not shrivel or flag, it is a sign that they are content with the humidity that the atmosphere of the house supplies. When watering is necessary, it should not be done indiscriminately, but according to the wants of particular plants. It is also of great importance to use rain-water only, which may be collected for the purpose in a tank, as shown in the plan of Mr. Rucker’s house, and which should not be applied of a temperature below 60° . Syringing in moderation may be had recourse to in hot weather. Some of the *Sobralias*, together with *Bromheadia palustris*, grow more vigorously if their pots are set in saucers of water during the summer months.

“To the foregoing rules the following advice may be added:—‘Do not aim at having too large a collection, but rather strive to grow a few good kinds in the best style.’ With moderate care and in a moderate-sized house, the whole of the plants enumerated in the subjoined ‘Century,’ will thrive apace and bloom freely; and he whom such a brilliant assemblage fails to satisfy must be an ardent collector indeed.”

GENTIANA ACAULIS.—Last year attention was called in the CABINET to this beautiful blue flowering spring ornament, and it was recommended as an edging for walks. I procured a quantity at 3*d.* each, and planted the walks of a small flower garden with it, and ever since the middle of March, it has been in profuse bloom. My soil is a sandy loam, in which it thrives well. As a successor to the Gentian when out of bloom, I had a quantity of what the Conductor of the CABINET advised as one for the edging of a flower-bed in summer, viz., *Lobellia erinus grandiflora*, and I planted a row of it close behind the Gentian, and now, (May 18th,) it is spreading among the same, and coming into bloom, and with its lovely blue and white spotted flowers, I doubt not, will be a pretty ornament to the autumn.

Cirencester.

LUCY.

ROYAL BOTANIC SOCIETY OF LONDON.

JUNE 4th. The plants, generally speaking, were in excellent condition. The Heaths were numerous, and attracted much attention; well-grown specimens of that beautiful tribe composing the greater part of some collections. There was a beautiful plant of *Barkeria spectabilis*, covered with delicate lilac blossoms, from Mr. Brewster, gardener to Mrs. Wray, of Cheltenham; a most beautiful dark variety of *Stanhoea tigrina*, having numerous pendent spikes of large flowers, from Mr. Robertson, gardener to Mrs. Lawrence; and a large specimen of *Dendrobium densiflorum*, finely in flower, from Mr. Mylam, gardener to S. Rucker, Esq. In addition to this, Mr. Mylam exhibited *Aerides odoratum* in wonderful health, *Oncidium pubes*, *Epidendrum cochleatum*, in good condition; *Saccolabium guttatum*, having four charming racemes of delicate purple blossoms; a small *Oncidium Lanceanum*, together with a well-grown plant of *Epidendrum crassifolium*, the beautiful *Phalænopsis amabilis*, and *Oncidium flexuosum*. In the same collection were also *Maxillaria vitellina*, *Stanhoea succata*, *Aerides odoratum*, producing a fine spike of bloom; *Odontoglossum hastatum*, a *Brassia*, and two *Epidendrums*. Mr. Hunt, gardener to Miss Traill, sent good specimens of *Maxillaria aromatica*, *Aerides odoratum*, *Oncidium luridum guttatum*, *Vanda Roxburghi*, *Calanthe veratrifolia*, *Oncidium Phillipsianum*, having fine spikes of yellow and brown blossoms; *Gongora atropurpurea*, in excellent condition; together with *Broughtonia sanguinea*, *Brassia*, *Henchmanni*, a pretty *Stanhoea oculata*, and a good *Aerides odoratum*. From Mr. Barnes, gardener to G. W. Norman, Esq., were *Stanhoea tigrina*, *S. insignis*, and *S. quadricornis*; also *Aerides odoratum*, *Vanda Roxburghi*, and the handsome *Cattleya Mossiae*. Collections of *Orchidaceæ* were also supplied by Mr. Redding, gardener to Mrs. Marryatt, and G. F. Cox, Esq., of Stockwell. Of Heaths, Mr. Barnes produced *E. vestita alba*, blooming profusely; a dwarf bushy *E. ampullacea*, *E. depressa*, well cultivated, and a beautiful *E. perspicua nana*, together with a large *E. grandinosa* covered with blossoms, *E. mundula*, *E. Cavendishii*, and a dwarf bushy *E. tricolor*. Mr. May, gardener to E. Goodheart, Esq., Beckenham, sent a collection, comprising, among others, *Erica vestita*, *E. perspicua nana*, in a lovely state; *E. odora rosea*, small but well-grown; *E. propendens*, well cultivated; the old *E. splendens*, and a large bush of *E. daphnæflora*; the handsome *E. ventricosa alba*, and a good hybrid. In a group contributed by Mr. Bruce, gardener to B. Miller, Esq., was a fine *Erica Cavendishii*, small plants of *E. splendens* and *tricolor*, the beautiful *E. venticosa superba*, the small neat-flowering *E. Bergiana*, and *E. ventricosa coccinea minor*. Mr. Jackson, of Kingston, exhibited among others, *Erica depressa*, in fine condition; *E. ventricosa breviflora*, well-grown; a fine specimen of a new *E. tricolor*, a well-grown *E. elegans*, together with *E. vestito coccinea*, *E. inflata rubra* (a beautiful variety), and a pretty *E. Cavendishii*. Mr. Jackson also showed a beautiful large seedling Heath, named *E. Eassoniana*. Mr. Brazier, gardener to W. H. Storey, Esq., sent *E. ventricosa alba*, *E. depressa* (in excellent health), *E. ventricosa superba* (blooming profusely), fine plants of *E. vestita alba*, *E. Cavendishii*, and *E. gelida*, the latter covered with bloom. In Mr. Brazier's collection were also *E. intermedia*, *E. floribunda*, and *E. vestita purpurea*, the latter very handsome. The collection by Mr. Green, gardener to Sir E. Antrobus, Bart., contained beautiful specimens of *E. perspicua nana*, and *E. depressa*; also *E. intermedia*, in excellent condition, and *E. gelida*, together with *E. ventricosa superba*, the beautiful small-flowering *E. propendens*, *E. ventricosa carnea*, and *E. dilecta*. An extra prize was awarded to J. Wells, Esq., Bromley, for four Heaths, in good condition. Mr. Dawson, of Brixton-hill, showed *E. perspicua nana*, laden with flowers; also *E. massoni*, the almost ever-flowering *E. mutabilis*, a fine *E. prægnans*, and *E. odora rosea*, well cultivated, together with *E. Humeana*, and *E. depressa*, the latter in excellent health. In the collection sent by Mr. Frazer, of Leyton, was *E. pendula*, a well-managed *E. ventricosa globosa*, *E. perspicua nana*, in a lovely state, and many other species equally well-managed. Mr. Brazier sent a collection of hybrid *Vestitas* in fine condition, in which were some good varieties, especially one named *E. floribunda*, having long pale-yellow blossoms. Among single specimens of Heaths, there was a large well-grown *E. depressa*, particularly noticeable,

from Messrs. Veitch and Son, of Exeter. Mr. Fairburn, of Clapham, contributed small but well-grown specimens of *E. intermedia*, *E. tricolor*, in fine health, a beautiful *ventricosa carnea*, and other varieties of *ventricosa*, in equally good condition. Mr. Clarke, gardener to W. Block, Esq., exhibited *E. dilecta*, *E. ventricosa superba*, in profuse bloom; and a large *E. vestita fulgida*. From Mr. Pawley, of Bromley, was *Erica mundula*, finely in bloom; a beautiful *E. perspicuana*, *E. vestita coccinea*, *E. depressa*, in remarkable health; and several other species that equally indicated good management. Of collections, that exhibited by Mr. Barnes, contained many good specimens, and among others a thriving plant of *Leschenaultia formosa*, a fine *Baronia denticulata*, *Aphelexis humilis*, in good condition; *Ixora coccinea*, well-managed; a good *Rondeletia speciosa*, *Clerodendrum squamatum*, large and fine; *Leschenaultia biloba*, producing its azure blossoms in abundance; together with *Phænocomma proifera*, and *Aphelexis sesamoides*, which was rich in blossom. Mr. Hunt showed, among other plants, a beautiful *Leschenaultia formosa*, covered with bloom; a good *Clerodendrum squamatum*, a large *Euphorbia splendens*, a pretty *Pimelea rosea*, a fine plant of *Ixora coccinea*, together with a well-managed *Gompholobium polymorphum*, trained on a wire trellis; and a beautiful *Pimelea decussata*. In the same collection were *Eutaxia myrtifolia*, a beautiful *Chorozema cordatum*, *Clerodendrum squamatum*, in excellent health; a pretty *Polygala cordifolia*; also *Oncidium flexuosum*, a large *Chorozema cordatum macrophyllum*, and a good *Russelia juncea*. Mr. Atlee sent *Sprengelia incarnata*, a large *Baronia denticulata*, *Ixora coccinea*, *Polygala oppositifolia*, in good condition; *Epacris grandiflora*, and a pretty plant of *Genista rhoopnæa*. From Mr. Slowe, gardener to W. R. Baker, Esq., Bayfordbury, was a large *Mimulus glutinosus*, a fine *Selago Gillii*, *Calanthe veratrifolia*, producing several spikes of white blossoms; *Cactus Jenkinsoni*, in good condition; a well-grown *Siphocampylus betulifolius*, and a well-managed *Hardenbergia longiracemosa*. Mr. Slowe also exhibited *Bossiaea linophylla*, a large *Vinea alba*, *Nerium splendens*, and a seedling *Calceolaria*, about four feet high. Mr. Green exhibited, among other plants, *Gnidia pinifolia*, a well-grown *Chorozema Dicksoni*, a tolerably good *Dillwynia speciosa*, a pretty *Siphocampylus betulifolius*, *Stephanotus floribundus*, trained on an upright circular trellis; *Pimelea linifolia*, a beautiful *Azalea lateritia*, *Chilodia scutellaroides*, a well-grown *Leschenaultia biloba*, in good condition; *Azalea variegata*, covered with blossoms, and a beautiful large *Colenoma rubra*, in fine health. From Mr. May was a collection, in which was *Leschenaultia formosa*, particularly good; a well cultivated *Ixora coccinea*, pretty plants of *Azalea variegata*, and *A. lateritia*; a large *Pimelea hispida*, and a fine specimen of *Cactus Ackermanni*. Mr. Bruce sent *Aphelexis humilis*, in fine condition; good plants of *Oncidium flexuosum*, *Leschenaultia formosa*, and *Adenandra speciosa*, together with *Ixora coccinea*, and a noble specimen of *Pimelea spectabilis*. From Mr. Clarke was a pretty *Gesnera splendens*, *Oncidium flexuosum*, producing fine spikes of flowers; a large *Euphorbia splendens*, *Abutilon striatum*, trained over a wired trellis; a pretty plant of *Fuchsia fulgens*, and a small *Aphelexis humilis*, densely covered with flowers. An extra prize was awarded to Mr. Taylor, gardener to J. Coster, Esq., for a good *Siphocampylus betulifolius*, a large *Diplacis punicea*, and some *Heaths*. Mr. Pawley sent, among other plants, *Aphelexis sesamoides*; well-grown *Boronia viminea*, covered with small pink blossoms; *Gesnera reflexa*, with large scarlet flowers; and a good *Nerium splendens*. In Mr. Frazer's group was *Philibertia Cunninghamii*, covered with bright-yellow blossoms; a small *Boronia serulata*, evincing good management; a good *Epacris pulchella*, a noble plant of *Statice arborea*, and a large *Euthales macrophylla*. Mr. Catleugh had, among other plants, a beautiful *Azalea*, called *Fulgens Superba*, with large, showy, bright-red blossoms; a good *Azalea variegata*, grown as a standard; *Plumbago capensis*, exceedingly well managed; a fine specimen of *Fuchsia exoniensis*, about five feet high; and a pretty plant of *Cytisus canariensis*. Collections of Climbing Plants were shown by Mr. Green, Mr. Frazer, and some single specimens by other growers. Mr. Green's plants were *Tropæolum azureum*, trained on a wire trellis; a pretty *T. tricolorum*; *T. edule*, with pretty yellow flowers; and a good *T. tricolorum grandiflorum*. Mr. Frazer's were *Sollya augustifolia*;

a beautiful *Gompholobium versicolor*, twining over a wire trellis; *G. polymorphum*, *Hardenbergia longiracemosa*, *H. monophylla*, exceedingly well managed, and a good *Sollya heterophylla*.

HORTICULTURAL SOCIETY.

JUNE 4th. Sir C. Lemon, Bart., M. P., in the chair. Mr. Rollisson obtained a Knightian medal for a new *Aerides*, from Bombay, like *A. crispum*. A specimen of *Oncidium concolor*, from W. C. Alston, Esq., of Birmingham, received a Banksian medal. This has yellow flowers. A specimen of *Oncidium pulvinatum* was shown by Mr. A. Scott, gardener to Sir G. Staunton, Bart. Some things came from Messrs. Loddiges, viz., *Dendrobium Dalhousieanum*; a large plant of *Catleya Mossiæ*, and one of *Lælia majalis*, to these a Knightian medal was awarded. *Epacris miniata*, a new shrub from Messrs. Loddiges, with rich vermilion flowers like those of *E. grandiflora*; it received the large silver medal. Some rare plants from the Royal Botanic Garden, at Kew, shows that the abuses there have not ceased. Here Dr. Hooker unwarrantably takes plants from where the public have a right to see them, to a place where the public have no right, and that as it were to injure a show held by the Botanic Society the same day, to which, however, by the desire of Sir William Hooker, no medals were assigned; they consisted of *Thunbergia chrysops*, a new species from Sierra Leone, with large flowers of intense purple, enlivened by a golden-yellow eye. Another was the *Franciscea hydrangææ formis*, a valuable stove shrub, from Brazil, with heads of fragrant violet blossoms; a third was *Gloxinia* (or rather *Gesnera*) *tubiflora*, with long white trumpet-shaped blossoms, cream colour. *Alpinia nutans*, from the garden of W. Everett, Esq., of Enfield. Mr. Glendinning exhibited three seedling *Gloxinias*, with rose coloured flowers. For two of them the Banksian medal was given; the third a Self, was not included in the award. Mr. Chapman sent some good British Queen Strawberries, and Mr. Fleming, gardener to his Grace the Duke of Sutherland, three Cabul Melons, with the appearance of the Hoosaineæ. Mr. Fish, gardener to H. Oddie, Esq., of Barnet, produced a green-fleshed Melon, weighing nearly 5 lbs., for which a certificate was given; and a bunch of Grapes that appeared to be quite new; the variety had been obtained by Mr. Fish, between the White Frontignan and Dutch Sweetwater, and exhibited the long narrow bunch of the former with the larger berries of the latter; when tasted it proved to have an agreeable Muscal taste, and was considered a good sort, well deserving the certificate that was allotted to it. Mr. W. Dunsford sent from Mr. Everett's garden, at Enfield, specimens of a new sort of Kidney Bean, the *Dolichos sinensis*, with young eatable pods, two feet long; they were described as being of an excellent quality when cooked like Kidney Beans.

LONDON HORTICULTURAL SOCIETY'S THIRTY-SECOND EXHIBITION OF PLANTS, &c. took place in the Chiswick Gardens on Saturday, June 15th.—There were 13,500 tickets issued. The King of Saxony, Prince Albert, Duke of Cambridge, and the Duchess of Gloucester honoured the exhibition with their attendance.

There were numerous well-grown specimens exhibited; and although we have seen a greater quantity shown on some former occasions, we do not recollect seeing them in such profuse and fine bloom as on this.

In new plants we noticed the following:—*Epacris miniata* (figured in the present Number of this Magazine). The plant was somewhat bushy, three feet high, and in profuse bloom; it does not grow so straggling as *E. grandiflora*, and is a very interesting plant. A first prize was awarded for it to Messrs. Loddiges.

Viscaria oculata.—Mr. Jackson, of Kingston Nursery, exhibited a beautiful specimen of this new annual (figured in a recent number of this Magazine); it was four feet high, with numerous lateral branches, very profusely in bloom, and strikingly handsome. It deserves to be in every greenhouse and flower garden.

Gompholobium splendens, by Mr. Green, gardener to Sir E. Antrobus, Bart. The flowers are about the size of *G. polymorphum*, but of a rich yellow. It is a very handsome species.

Pentas carnea, by Mr. Ayres, gardener to J. Cooke, Esq., of Brooklands. The plant was two feet and a half high, with ten corymbose heads of its pretty lilac-pink blossoms.

Veronica speciosa, by Mr. Ingram, of Windsor Castle gardens. The plant was three feet high, having thirteen fine spikes of its pretty blossoms (figured recently in this Magazine); it deserves cultivation in every greenhouse.

Clerodendron infortunatum, by Mr. Glendinning, of Chiswick. The plant was two feet and a half high, with a fine panicle of bright scarlet flowers. It well merits a place in every stove. *Achimenes picta*, a foot high, not near so well bloomed as we have seen elsewhere, nor were the flowers so handsome, probably being injured by the mode of treatment it had received in order to push it into bloom for the occasion.

Gloxinias, three seedlings; 1st, named *G. cartoni*; outside of tube rose-coloured, the limb portion is margined with white, and the inside of the flower white with faint stripes of rose; it is a very pretty variety. 2nd, a pale flesh colour outside, and nearly white inside, also pretty. 3rd, a pale blue, with a dark coloured inside, and a lighter stroke down the lower inside of the tube.

Pavetta Caffra, by Mr. Slowe, of Bayfordbury, in Herts. The plant is usually large before it blooms, but this was only half a yard high, having a fine head of its lovely white flowers.

Pterodiscus speciosus, by Mr. Smith, of Kew Gardens. The flowers have a resemblance to *Martynia*, or between the *Gloxinia* and some of the *Mimuluses*, of a dull reddish-purple. The plant is half a yard high.

Ixora acuminata, by Messrs. Lucombe, Pince, and Co. Plant three feet high, the leaves are like those of a fine *Magnolia*; it had a head of several hundreds of pure white flowers. *Cyrtocercis reflexa*, plant three feet high, having *Asclepias*-like heads of yellow and white blossoms.

Rondeletia speciosa, by Mr. Dobson. The plant half a yard high, literally covered with heads of its beautiful orange-red flowers. This plant is generally grown long and straggling, but the present specimen was low, and formed a compact bush.

Erica Massoni major, a plant three feet high, in fine bloom, by Mr. Jackson.

Dracophyllum secundum, by Mr. Jackson, a pretty plant, with drooping green flowers.

Hindsia longiflora and *H. violacea*, by Messrs. Veitch. Cut specimens of both these pretty flowers were exhibited.

Erica ventricosa alba, by Mr. Robertson. Plant three feet high, most profusely in bloom; and *E. depressa*, with greenish-yellow flowers, plant three feet, a beautiful specimen.

Achimenes longifolia, by Mr. Falconer. Two feet and a half high, and as much across, very profusely in bloom. *Leschenaultia formosa*, three feet high, a very compact bush, and one mass of bloom.

Lilium testaceum, by Messrs. Mountjoy, of Ealing nursery. The flowers are of the turn-cap form, large, and of a beautiful pale fawn colour; the flower stem was four feet high.

Azalea Indica variegata, *laterita*, and *Gledanesii* had been grafted on one stem, and the three in profuse bloom, was exhibited by Mr. Green; the plant was three feet high.

Pelargoniums.—AMATEURS' CLASS, 12 new and first-rate kinds, in pots, 24s. 1st Prize, Mr. Cock, of Chiswick, for Paragon, Sir R. Peel, Eclipse, Emma, Hebe, Queen of the Fairies, Black Dwarf, Erectum, Sarah, Garth's Queen Philippa, Maid of Honour, and Unit. They were dwarf robust-grown plants, in vigorous health and bloom.

2nd Prize, Mr. Dobson, for Susanna, Majestic, Matilda, Queen of the Fairies, Bella, Leonora, Martha, Serjeant, Flora, Conflagration, Angiola, Sir R. Peel, and Susanna.

3rd Prize, Mr. Coysh, of Clapham, for Beauty, Nymph, Prince Albert, Comte de Paris, Venus, Erectum, Sylph, Lord Mayor, Phillis, Matilda, Priory Queen, and Madeline.

NURSERYMEN'S CLASS.—12 new and first-rate in 24s. 1st Prize, Mr. Gaines, for Queen of Beauties, Oberon, Coronation Superb, Beauty Supreme, Witch,

Orange Perfection, Pirate, Clio, Rising Sun, Princeps, Hermione, and Princess Royal.

2nd Prize, Mr. Catleugh, for Conflagration, Luna, Sultana, Flash, Paragon, Emma, Taglioni, Madeleine, Maid of Honour, Sarah, Laura. There were three competitors in the Amateur's Class of twelve varieties, in pots of 12 to the cast. The silver gilt medal in this class was awarded to Mr. J. Parker, gardener to J. H. Oughton, Esq. This collection comprised 12 very finely cultivated varieties, uniform in size, and in perfect health. Victory, Ovid, Rienzi, Jubilee, Rosalind, Annette, Evadne, Priory Queen, Arabella, Erebus, Lord Mayor, and Comte de Paris. The large silver medal was awarded to Mr. Cook for the following well-selected sorts:—Hector, Sultana, Queen of Fairies, Wizard, Symmetry, Hebe, Constellation, Paragon, Rising Sun, Rachel, Nestor, and Lord of the Isles. 3rd, Silver Knightian to Mr. W. Bromley, gardener to — Anderson, Hammersmith, for Annette, Sylph, Grand Duke, Priory Queen, Exquisite, Una, Victory, Erectum, Piba, Leila Jones, Clarissa, and Coronation. In the Nurserymen's Class, the contest again lay between Mr. Gaines and Mr. Catleugh, the former taking the 1st Prize, silver gilt medal, for Juba, Albina, Lifeguardsman, Lady Cotton Shepher, Pride of Surrey, Mabel, Arabella, Gem of the West, Priory Queen, Lady Sale, Madeleine, Alba Perfecta. Mr. Catleugh's flowers were Dido, Luna, Nestor, Selina, Hannah, Priory Queen, Madeleine, Lord Mayor, Comte de Paris, Hebe, Amulet, and Witch. The silver Banksian was awarded to Mr. Bourne, gardener to Sir E. Paget, for six varieties in pots of eight to the cast, Lifeguardsman, Matilda, Erectum, Victory, Nymph, Madonna.

SEEDLINGS.—Several of merit were exhibited, not an improvement in form, but for singular rich or unusual colours. The judges selected the following for prizes. We give the descriptive list of the others below. Sir J. Broughton, a well-formed, compact, but rather small flower; colours high and fine, blotch on the upper petals dark and fine, graduating to the edge, which is narrow, and a bright crimson-rose; it has a small white centre, with rich purple-crimson under petals. Exactum, good cupped flower resembling the former, but larger, and a few degrees lighter in colour; these two flowers were exhibited by Mr. Whomsey, gardener to E. Foster, Esq., Clewer Manor. Titus, from Mr. Hoyle, of Guernsey, a well-formed flower, rosy under petals with light centre; dark rich velvety upper petals, with a distinct margin of bright rosy-carmine. Desdemona, Mr. Dobson, gardener to Mr. E. Beck, a fine full-sized flower of good form; under petals tinged with delicate pink, upper petals large, stout, and of a velvety texture, of a rich maroon colour, which runs to the base of the petal, and also leaves a distinct margin of delicate rose-colour round the petals.

The *Calceolarias* exhibited this year have not been equal to those of former seasons, either in the goodness of the sorts or in their cultivation. The Amateurs', which were decidedly the best, were from Mr. Stanley, gardener to H. Berens, Esq.; to these the large silver medal was awarded; the sorts were Jewess, Magnifica, Gipsy, Auro Maculata, Duke of Cornwall, and Vivid. The Nurserymen's collection was from Mr. Gaines, and contained Candidate, Lady Elcho, Magnet, Mabel, Sunbeam, and Tigrina.

Two collections of *Fuchsias* were exhibited for competition; both were under fine cultivation. Mr. Gaines obtained the large silver medal for his collection, which contained the best-selected sorts which have yet appeared—Decora, Robusta, Conspicua arborea, Alata, Curtisii, Majestica, Gem, Venus Victrix, Ivoryana, Victory, Excelsa, and Pulcherrima. The other collection was from Mr. R. Laing, of Twickenham, and received the silver Knightian medal; the following sorts comprised this collection—Stanwelliana, Arborea, Insignis, Fulgens, Multiflora, Majestica, Robusta, Laneii, Paragon, Moneypennii, Elegans superba, and Venus Victrix.

A superb collection of *Ranunculuses* was exhibited by Messrs. Tyso and Son, of Walingford; these flowers attracted much attention from their extreme delicacy and beauty; and, considering the unpropitious season we have had, it must have required great skill and unceasing attention to have produced such fine blooms; the collection contained Temeraire, Candale, Tippoo Saib, Kilgour's Queen Victoria, Princess Royal, Dr. Neill, Coronation, Marquess of Hert-

ford, Ximenes, Queen Victoria, Bon Financier, &c., with the following fine seedlings raised by Messrs. Tyso and Son—Felix, Edgar, Gippius, Grand Romana, Albinus, Herbert, Virginia, Attractor, Dictator, Raphael, Amasis, Jubal, Delectus, Champion, Falcidia, Eureka, Alexis, Comptroller, Tubal, Basilica, Grandis, Adolphus, Phyllis, Silverton, Innocent, Ada Cathcart, Arcadia, Solon.

The *Pinks* were good for the season; the collection to which the silver Knightian medal was awarded, was from Messrs. Norman, of Woolwich, for the following sorts.—Cousin's Queen of the Isles, Creed's Henry Creed, Willmer's Queen Victoria, Young John, Eclipse, Hodges' Gem, Lady Flora Hastings, Melona, Flora, Willmer's Prince of Wales, Cousins's Little Wonder, [Creed's President, Majestic, Unsworth's Omega, Duke of Northumberland, Garrat's Alpha, Bunkell's Lord Brougham, Norman's William, Triumphant, Queen of Roses, W. Cobbett, Gay Lad, Creed's Miss Creed.

THE AFRICAN GUANO ISLAND, ICHABOE.—The island whence the Guano is taken is about three miles from the shore, on the south-west coast of Africa. It is a barren rock, about a mile in circumference; has no soil, or the least sign of vegetation. The Guano lies to the depth of twenty feet, and without any variation as to quality. The continent is very sandy, and in high winds will cover a ship's deck nearly 100 miles off. The birds on the island are a kind of penguin, and cannot fly to any distance, if at all, their wings being a kind of fin. Mr. Parr, who appears to have first visited it, states it is very difficult of approach, there being no harbour. On walking on it he could scarcely set his foot without treading on the birds, and they took no notice of him, except pecking at his feet, he being barefoot. There is no fresh water, it is believed, for some hundreds of miles along the coast, and no rain.—*Edinburgh New Philosophical Journal*.

ON GRAFTING PELARGONIUMS.—On a former occasion I stated that at the end of last July I had grafted half a dozen very distinct coloured Pelargoniums, upon a strong plant of the old vigorous growing variety, Commander-in-Chief, doing it by first beading back to about four inches long the six leading branches, and immediately inserted a graft of another kind into each, in the whip grafting method, having the graft a well ripened shoot of that year's growth. After claying and mossing over the same, I placed it in a close frame, shaded, and sprinkled the foliage over daily to keep it fresh. In three weeks all the grafts were united, and at the end of September I repotted the plant, and now (April 20th) the six kinds are in beautiful bloom in my conservatory, having been gently forced to get them thus early into bloom. The pretty contrast of form and colours of so many varieties in one plant, render it so interesting an object as to deserve the attention of the readers of the CABINET.—CLERICUS.

ON THE CHINESE IRIS.—Having in my greenhouse one of those beautiful plants the "Chinese Iris," I thought a description of it in its flowering state might be interesting to the readers of the FLORICULTURAL CABINET, and tend, in some degree, to stimulate the cultivation of so pretty a flowering plant. I have one in a large pot, which has several shoots, two of which have sent forth flowering stems, and upon the two appeared last month forty-five bud-blossoms. On the 30th ultimo, fifteen blossoms were open at once, nine on one stem and six on the other, and it has continued to exhibit from seven to nine (and for several days ten to twelve) blossoms every day since. I should not have remarked it so much, but that on referring to Mr. Curtis's "Flower Garden," vol. ii., page 373, he makes mention of one of these plants at Mr. Colwill's, King's Road, on which were counted "seven blossoms expanded at one time on its different branches." Mr. Curtis does not say how many branches the plant had. But if seven was thought by such a botanist as Mr. Curtis, to be worthy of such notice in his work, I think fifteen blossoms upon two branches only (or rather stems) fully expanded at the same time, and nine of them upon

one stem, renders mine a rare specimen of the kind. Though from its first expanded blossom it is now about three weeks, there are yet fifteen more blossoms to open.

Chipping Norton.

G. M. SMITH.

[It is; we shall be obliged by any remarks on its culture, addressed to us at Downham, Norfolk.—CONDUCTOR.]

ON THE TANK SYSTEM OF HEATING.—Last autumn I had a small greenhouse fitted up to be heated on the tank system, and which I have found to succeed well, keeping up a due degree of warmth, and not (as one of your correspondents, in the last number of the *CABINET*, states,) “affording too moist an atmosphere for winter to a greenhouse.”

My boiler is a small one of Rogers's; the gutters (a proceeding and return one) are fixed along one end and the front of the house. They are raised two feet above the floor, formed of brick, and cemented inside. I have slate coverings, a quarter of an inch thick, over the gutters, and raise one or more at different parts of the gutter, so as to admit a regular portion and distribution of moist temperature in every part of the house.

CLERICUS.

TANK SYSTEM OF HEATING.—We have visited several establishments where the tank system of heating by hot water in open gutters, &c., were adopted last autumn, and the managers having had a winter and spring experience, they were enabled to speak of its merits.

For heating a greenhouse, conservatory, or pit, where what is termed greenhouse plants of the usual kinds, are grown, the moisture is found to be so excessive, that they have been completely saturated and many damped off, although the usual precaution was taken by slate covers to check the moisture.

It had been employed in several instances to heat pits, by having the tank or troughs extending along underneath, but even then the moisture had come through the bank or soil too much, and there had been a fire flue constructed along the front of the pit, in two instances, in order to dry up the excess of moisture in the upper space. The fire flue was heated from the boiler fire. This had answered expectation. A house, or pit, so constructed, to confine the moisture under the materials of the pit, to plunge pots of cuttings in, answers well from March to October, and the best material to plunge the pots in is fine bed or river sand. We saw a pit with numerous pots of cuttings in flourishing amazingly, and almost universally succeeding.

A few pipes had passed through the sand from the chamber to the upper space; when moist vapour was required for the upper space, the plugs, which were put in the tops of the pipes, were taken out for the period required.

For Orchideæ and other plants which can bear excess of moisture, the plan of heating in open troughs may do; we shall give particulars of such in our next. Of the construction, &c., of boilers, troughs, and tanks.

CONDUCTOR.

ON AMERICAN, OR MEALY BUG.—Having a Chinese Apple-tree in my shrubbery, it had for two years become infested with the Mealy, or American Bug. In order to destroy it, in February 1842, I took a quantity of the finest brick-makers' clay from a brickyard, and carefully coated the tree over with it, as far as the insect infested it. This, by excluding the air from the insects, soon destroyed them. The coating came off by natural causes. I kept the diseased portions plastered over the entire year, and it so answered the purpose that not a vestige of the insect has been seen since February, 1842.

Andover.

CLERICUS.

ON THE SPOTTED LEAVES OF PELARGONIUMS.—Last year I forwarded some leaves of Pelargoniums which were frightfully spotted, as if affected by mildew.

I desired the favour of any reader of the CABINET who would do it, to favour me with a remedy. My request remaining unanswered, I beg to observe, I am again pestered with the infliction, I shall be glad of early advice, my entire stock of plants is now infected with it. Plants in my greenhouse, and cool frame, are alike injured.

May 10th.

W. W.

HYBRID RHODODENDRONS.—Noticing that the two previous years the Conductor has given in the CABINET a list of the finest Hybrid Rhododendrons, in the collection of Mr. Watever, as shown each season at Chelsea, I hope, although I find there is not be one this season, that you will endeavour to give us the annual descriptive list of new kinds. The Rhododendron tribe is one I much admire, and have for a few years paid some attention to raising seedlings, between the high coloured tender kinds and the hardy ones, and this season, I have several in bloom, which are perfectly hardy, and the colour of *R. altaclarence*. I have many plants which have been raised between the *R. altaclarence*, *Russelliana*, *Pulcherrima*, and others of a similar high colour with the white flowering *R. ponticum*, *maximum*, and *roseum*; I anticipate a beautiful display from them. I am glad to observe, that from time to time, you have urged the readers of the CABINET to pay attention to hybridizing the most distinctive kinds, to produce a more extensive lovely variety. As the plants are now in bloom, I hope attention will be paid to impregnating the blossoms, &c.

Berks.

CLERICUS.

FLORICULTURAL CALENDAR FOR JULY.

THOSE annual plants that have not yet been transplanted out, should now be done, in cloudy and showery weather, keeping as much earth to their roots as possible, and supporting those with sticks that require it; they will bloom well in August and September. Tender annuals may now be turned out into the flower borders; they should be refreshed at least once a day with water, and if the sun is very powerful they will require to be shaded, till they have taken fresh root; those that remain to flower in pots must be frequently supplied with water, repotting, &c., as they require it. Finish transplanting perennial and biennial plants sown in spring. Double Sweet Williams should now be laid. Those Carnations in pots require particular attention in keeping them well supplied with water, and to support the flower stems by tying them to neat green sticks with bass; pipings of the young shoots may still be put in; those cut at the second or third joints make the handsomest plants; they should be kept shaded from the hot sun, otherwise they will soon get scorched and dried up; they should be finished layering by the middle of the month. Pinks may still be propagated by pipings as in June. Auricula plants in pots will require a little water frequently in hot weather, taking care not to pour it on the heart of the plant; all dead leaves should be removed; if any of the plants are attacked with the green fly they should be smoked with tobacco, or sprinkled with tobacco water. Transplant seedling Auriculas and Polyantheses, and keep them in a shady place. Pansies may still be propagated by slips of the young shoots; the seed should be sown either in pots or borders, in a shady place, and well supplied with moisture. All sorts of Roses (with the exception of the China and its varieties) should now be budded. Many sorts of bulbous-rooted plants, as Ranunculuses, Tulips, Anemones, &c., which will now be past flowering, and their leaves decayed, should be taken up, well dried, cleaned, and the offsets separated, and put in a cool, airy place, till the planting season again commences. The double scarlet Lychuis, and such like plants, should be propagated by cuttings. Geraniums may now be increased by cuttings. Dahlia cuttings will easily take root if placed in a brisk heat. Continue to cut box edgings, and hedges, where it was not done last month. Mignonette now sown will bloom well in September, Pelargonium cuttings should now be put in, so as to have well-established plants for blooming next year, or for growing in next year, so as to prepare them for extra specimens for the year following.





Sedding Pinks.

1. Queen of Roses. 2. Duke of Northumberland

THE
FLORICULTURAL CABINET,

AUGUST 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

DIANTHUS PLUMARIUS. THE PINK.

1. QUEEN OF ROSES, (Garrett's). 2. DUKE OF NORTHUMBERLAND, (Headly's).

THESE varieties were exhibited, in the collection of Mr. Ward, of Woolwich, at the London Horticultural Society's show on June 15th, 1844, and in their respective classes were far superior to any others then shown.

The following is the mode of treatment pursued by one of the best pink-growers in the southern part of this country, judging from the number of prizes he has obtained at the floral exhibitions:—

“ Having been an extensive cultivator of pinks for many years, induces me to send you the method I adopt, for the propagation and culture of that flower. Propagation is by piping, being the most safe and expeditious plan. About the third or fourth week in June I begin piping, choosing a southern aspect in the most airy part of my garden; and I always choose my mould of an open texture, worked finely with a spade for the first four inches, and for the next two inches I sift some mould through a fine sieve, with one-fourth of drift or river sand laid on the top of the above. I then take a straight-edged board, and level it all over; the length and breadth of the bed to be regulated according to the quantity to be piped; since I have been a dahlia-grower, I have struck my pipings where I have

struck my dahlias. Having removed the frame I take off the top surface until I come to the dung, I then take a fork and shake as much of the dung as will cause a gentle heat; I afterwards lay a piece of old matting on the top, to prevent the worms from working up, covering it over with the mould as above described; the next object being to select the most rare and new sorts, which I pipe first, covering them with glasses varying in size from four to twenty-two inches square, using the small ones for the best sorts, I generally take the grass or side shoot from the plants with the number stuck to them, keeping each sort separate; I then proceed to cut off the pipings, stripping the leaves to the second joint, and with a sharp knife cut them close under the joint, taking care not to injure it. In those sorts in which the joints are shorter, I cut the third or fourth joint, and as I cut them I place them in small pans of water to stiffen, which causes them to enter the ground more freely, taking care to keep each sort separate. I then take the glasses and make a print in the mould with them; I next proceed to take each piping singly, and stick them into the mould up to the first joint, three-quarters of an inch apart; after having filled the space I proceed to give them a gentle watering, taking care not to put the glass down close until they are dried, or it will cause them to damp off; I proceed in this manner until I have gone through the whole of my collection, being particularly careful to shade them from the mid-day sun, which I do by placing hoops across the piping place, covering them with matting from eight in the morning till five in the evening, giving them the full benefit of the morning sun till eight o'clock; in the course of three weeks many of the glasses may be taken off, and at the end of six weeks most of them will be fit for planting out into the bed, which should be prepared ready to receive them, planting them three inches apart in the rows, and each row four inches apart. In the middle of September I generally begin to make up my bed for blooming, having it four feet wide with border boards above the level, I take out one spit of earth from end to end, replacing it with a layer of horse or cow-dung quite rotten four or five inches thick all over the bed; I then cover it with about six inches of earth, keeping it three inches higher in the centre, gradually sloping to the edge, after which I mark out the bed and plant the pinks seven inches apart: about the latter end of March I top dress them with some old rotten horse-dung worked

into the mould with a small fork between each plant: in the beginning of May they will spindle up for bloom, I then take off all the side shoots that show for bloom, not leaving more than two of the main stems to bloom, and in many cases not more than one, and also all the side shoots that show for bloom, leaving only the main pod to bloom: about the latter end of the month many of the pods will begin to open, care must then be taken to keep the pods from bursting, to prevent which, they should be tied with a piece of soft bass matting round the middle of the pod in a tight knot; and should they be inclined to run down on one side, they should be eased on the opposite side down to the bass, which will give freedom to the petals to expand equally; and when they begin to drop their guard leaves, cards should be placed on them, laying the guard leaves even and round to allow the others to fall in regular succession, then the shade should be placed over them from the sun."

The following mode of treatment is given us by one of the most successful northern florists:—

"The compost of the beds should be composed of fresh loamy soil, mixed with an equal proportion of cow-dung, which should be two years old. These materials must be well incorporated together by frequent digging. The beds in which blooming plants are to be grown, should be some little higher than the surrounding surface, and the surface of the bed must be formed so as to have it convex, in order to throw off any excess of wet, which, if not guarded against, would be particularly injurious.

"I plant off my pinks for blooming in September, for pinks transplanted in spring never do well, nor show half the beauty which those do that are planted in September; the laced pinks, in particular, appear almost plain, without their distinguishing character. In order to have strong vigorous blossoms, I raise fresh plants from pipings every season, as they bloom the best when one year old.

"I have often noticed in the plan of striking pipings which is generally adopted, a very great failure to attend the practice; in numerous cases not more than one in twenty strike root. The usual method is to make a slight hotbed, and cover it either with a frame or hand-glass; the pipings being inserted, are accommodated with dung-bed heat; this is quite opposed to their striking, for at this period it is indispensably necessary to a successful striking that they

be kept quite cold. In the mode I practise, ninety-nine will usually strike out of every hundred.

“ My piping season is from the middle of June to the first of July,—that is, when the plants are in bloom; for if later, the shoots get too long for successfully striking root. I find it best to take them off when about two inches long, and plants raised from such pipings make a far more vigorous growth than those which are struck from older pipings. The mode I pursue in striking is as follows:—I select a shady situation in the garden; having dug the soil over, I then with water make it a complete puddle. Having taken off the pipings, I strip off the two lowest leaves, and then stick the pipings into the puddle, at about three inches apart. Having done this, I place a hand-glass over them; I do not water them on insertion, for if this were done, the pipings would be very liable to damp off. The hand-glass is not removed till I perceive the pipings have begun to push shoots; this is generally in about three weeks; I then take it off for about half an hour each day for the first week, thus gradually exposing them to the air. By the above mode of striking, for the last four years I have not lost one dozen of pipings.

“ In order to grow pinks producing the finest and best flowers, it is indispensable to make a new bed every year. I uniformly grow the most esteemed varieties in beds prepared as above, where

“ Varied beauties shine upon her face;
Where all is beauty, harmony, and grace.”

“ The properties of a good pink are, the flower must be two inches upwards across, broad petals, of pure white, quite distinct from the eye, unless the flower be a laced pink, in which the colour of the eye must go round the edge of the petals, and be free from any tinge or spot; the colour of the eye and edge should consist of a bright, or dark rich crimson, resembling velvet, the darker the colour, the more to be valued.

“ When the weather is hot, I find it necessary to shade the flowers. This is done by placing small boards over them. The boards are five inches broad, and about half an inch thick, each fixed upon a stick that supports it above the flowers—for

“ Touch'd by the sun, the lustre fades
And weeps itself away.”

“Early in May, I commence watering with liquid manure.”

The following standard of form for the pink was forwarded to us by Florista, as being that agreed upon by southern florists:—“That the flower should be circular, and rise like half a ball; the petals should be thick, broad, smooth at the edges without notch or serrature; they should be regularly disposed, and each row be smaller than that next under it; the ground should be pure white. The colour, whatever it may be, should reach from the inside of the petal, far enough outwards to show in front beyond the petal above it, and form a rich eye; and a narrow even lacing or stripe of the colour should appear inside the white edge, which should be just the same width outside the lacing as the lacing is, and as even. There should be no break or vacancy in the lacing, and the colour inside of the petal, as well as the lacing, ought to be well defined, forming a circular coloured eye or centre to each row of petals.” Our respected friend Florista, who is an amateur grower, resident in a midland county, observes,—“The northern florists do not accede to this standard, as they consider all pinks not thoroughly laced *to the edge of each petal* useless, and such are invariably discarded from their shows, as possessing a fatal defect, termed feather-edged. I must candidly admit, that several of the northern varieties have pre-eminence in shape of petal, and regularity and boldness of lacing, over the southern ones, being large, fine, and well-shaped, with edges free from notch or serrature, and regularly laced, and had besides beautiful centres or eyes.”

I do not wish to be understood that I am commending the northern flowers beyond their merits; yet I cannot bring myself to confess that *two or three* tiers of petals constitute a *double* flower; but I must admit, that if they were possessed of more petals, they would be all a florist could desire a pink to be.

We applied to Messrs. Ward and Normans, of Woolwich, for the blooms they exhibited this season at the London shows; all their flowers were *double*, and though fully so, the greater part of them had centres free from any confusion, and arranged with regularity. These stands comprised both southern and northern varieties.

ARTICLE II.

REMARKS ON THE LILAC.

BY FLORA.

The lilac, various in array, now white,
 Now sanguine, and her beauteous head now set
 With purple spikes pyramidal, as if
 Studious of ornament, yet unresolved
 Which hue she most approved, she chose them all."

COWPER.

THE delightful sensation which the lovely tints of this elegant flower, and its fragrance, produce on us in the month of May, has been compared to the first emotions of love, for nature seems to have ordained that mortals should not be permitted to see the one or feel the other with indifference; for who can behold the flexible and modest, yet dignified clusters of this charming flower, whose colours vary at every movement, and so sweetly descend from the finest violet down to the silvery white, without regretting the short duration of so divine a gift.

Perhaps we have no flower that gives, or an imagination strong enough to conceive, greater harmony than is afforded in the happy gradation of colour from the purple bud to the almost colourless flower of these charming groups, around which the light plays and dissolves itself into a thousand shades, which all blending in the same tint, form that incomparable combination that rivets the attention of the most indifferent observer, and throws the painter into despair. We are told Spændonk himself dropped his pencil before a bunch of lilac; for Flora seems to have designed the thyrsi of the lilac to please the artist by their delicacy, and to tantalize him by their varying tints.

The harmony of colours is so complete in the lilac, that when we place a bunch of the white flowers on a branch of the purple variety, an offensive harshness is instantly observed; nor will the more delicate green of the first kind assimilate with the purple tyrus of the latter, without displeasing the eye.

In the floral language of the east, where this flowering shrub is a native, and where spontaneously

—“the lilac hangs to view
 Its bursting gems in clusters blue,”

they have made it an emblem of the forsaken, because it is the flower that lovers offer the fairer sex when they quit them; but in this climate, where the charm of the fair is as powerful as this flower is agreeable, the swain is often kept in fear of receiving the lilac.

However ungallant the Persian beaux may be in giving the lilac, they are not deficient in complimenting the fair in their language, as their expression for a fine woman and a beautiful flower is the same. Lilac, or lilag, is a Persian word, which simply signifies a flower, but which Europe has given to the shrub it has taken from the ancient Elamites; and from the flower we have given name to one of our most delicate compound colours.

That a plant of the tropical climes should be so hardy as to stand the severest winters of the greater part of Europe is admirable in the lilac. Its easy propagation, and speedy growth, are no less conspicuous than its beauty, and which have contributed to its rapid distribution throughout not only the temperate but even some of the colder parts of Europe; for it has naturalized itself in Scotland and in the mountains of Switzerland, and it is now found in the forests of Germany, although it was unknown in this quarter of the globe before the year 1562, when Angerius de Busbeke obtained it from the east, and transported it from Constantinople to Vienna, whence he had been sent ambassador from the Emperor Ferdinand I. to the Sultan Soliman.

The generic name of this plant, *Syringa*, is derived from the Greek *Συρίξ*, a pipe, because when the pith is taken from the wood it formed pipes like those which Pan made of the reeds into which the nymph *Syrinx* was transformed.

———“ ‘Thou,’ he said,
 ‘Who canst not be the partner of my bed,
 At least shall be the consort of my mind,
 And often, often to my lips be join’d.’
 He form’d the reeds, proportion’d as they are,
 Unequal in their length, and wax’d with care,
 They still retain the name of his ungrateful fair.”

}
 OVID.

Hence as *syrinx* and *syringa* meant a pipe, the lilac was called the Pipe-tree when first known in England; and under that name Parkinson writes of it in 1640, and Roy in 1665. Although Gerard says, in 1597, “The later phisitions do name the blewpipe-tree

Lillach, or Lilac, and some Syringa." This author tells us, that the lilacs were then growing in his garden in very great plenty, where they flowered in April and May: and he adds, "But as yet they haue not borne any fruite in my garden, though in Italie and Spaine their fruite is ripe in September;" from which we learn it was then common in Europe; but we have no means of ascertaining by whom and in what year it was introduced into England. However, as it reached Germany in the second year of Queen Elizabeth's reign, it is probable that plants were soon afterwards sent to her gardener; as we find by the survey of the royal gardens of Nonsuch, in Surrey, which were planted in the time of Henry the Eighth, and were one of the favourite residences of Elizabeth, that in the privy-gardens of that palace there were fountains and basins of marble, one of which was "set round with six lilac trees, which bear no fruit, but only a very pleasant smell." This survey was made in the time of Charles the Second, who gave the palace and gardens of Nonsuch to one of his mistresses, who pulled it down and sold the materials.

Gerard considered the lilac to be a species of privet; later writers took it for a kind of jasmine; and M. Jussieu, in his "Natural Classification of Plants," also makes it one of the jasmine family.

In the shrubbery the lilac is amongst the first that announce the return of spring; and no flowering tree makes known the welcome tidings in a more pleasing garb, for the beauty of its foliage, and particularly that of the white variety, is scarcely less agreeable than its girandoles of flowers, that shed their perfume so delightfully over our May-day walks.

The praise which Eudosia bestowed on the swan, we may safely borrow for the white lilac, as it is equally an

" Emblem of modest grace,
Of unaffected dignity and ease,
Of pure and elegant simplicity."

Many persons complain of the lilac for shedding its flowers so early, without taking into consideration at what an acceptable period the blossoms appear, and that it lends its beauties, with those of the laburnum, to fill up the space between the flowering of the almond and the arrival of the rose, which leaves us nothing to regret.

The most beautiful variety of the common purple lilac is that known by the title of the Scotch lilac, from its having been first men-

tioned in the catalogue of the Edinburgh garden. The flowers of this kind are of a much richer colour than those of the blue lilac, the buds and under side of the petals being of a hue between purple and carmine, that gives a kind of ripeness to the appearance of the clusters, which are produced in larger groups, and with larger flowers also, than any other lilac. This kind likewise gives out its blossoms about fourteen days later than the common lilac, which lengthens the season of these flowers very considerably. The Scotch lilac is succeeded by the Persian lilac, which continues in blossom until the end of June, thus decorating our plantations from eight to ten weeks with the most agreeable attire.

During the last year we enjoyed the forced lilacs from the beginning of February until those of the open garden appeared, which pleasure was lengthened by our meeting with them in full perfection at Paris in the months of August and September, where

*Le lilas qui pend, avec grace,
Offre ses bouquets ingénus,*

at a season we have not yet met with them in this country, although we have equal means with the French of retarding the time of their flowering.

The art of retarding the ripening of fruits, and the flowering of plants, is scarcely less desirable than that of forcing them, for by this means we join, as it were, the two ends of the year.

The common lilac grows to the height of eighteen or twenty feet, when planted in a rich light soil; therefore it should hold a middle rank in the plantation. And we have already noticed how charmingly it contrasts with the laburnum and the guelder rose; the purple variety being placed with the snow ball, and the white lilac advancing its pale leaves before the cypress, the bay tree, or other dark evergreens; whilst the blue Persian lilac may spread its more humble, but not less graceful branches, in the foreground of its white relative. The Persian lilac seldom exceeds five or six feet in height in the most favourable situations; therefore it should only be placed in front of the shrubbery clumps or plantations. It often spreads to a considerable extent, and covers its whole mass with its loose branches of delicate flowers, which are of a more agreeable, though less powerful odour, than those of the common lilac. We have seen large bushes of the common privet-leaved lilac growing on lawns,

bending their slender branches to the turf every way, and forming a mount of blossoms, arising from the green sward, that could leave the most voluptuous florist nothing to wish. Of the Persian lilacs, the variety with cut or pinnatifid leaves was the first introduced, which Parkinson tells us, in 1640, was then growing in the garden of Master Tradescant, at South Lambeth. It is noticed also by Parkinson, in his "Garden of Pleasant Flowers," of 1629, but he there states that it was a stranger to England, and that he described it from foreign accounts, with a hope that some one might be induced to bring it to this country. It is, therefore, clear, that its first introduction was between these two dates. It was formerly called the Persian jasmine by our nurserymen, although it was first introduced into Europe with the Persian name of Agem. It is generally supposed that the white Persian lilac is only an accidental variety, either raised from seed, or produced from suckers of the blue sort.

The Chinese lilac was first brought to this country in 1795. It is of a middle stature, between the Persian and the common lilac, and its leaves smaller than the common kind, with branches that are generally better furnished with blossoms, and that are both larger and deeper coloured than those of the Persian lilac.

The lilac should never have its branches shortened, as the flowers are always produced at the ends of the shoots of the former year, and just below the girandole of flowers other shoots come out to succeed them, and contribute much to the beauty of the flower. The part on which the flower stands, decays down to the young shoots every winter. Thus nature prunes the lilac, but the trees of the common lilac are greatly improved, by attention in keeping the stem free from suckers, as it will always be observed, that those plants which are so trained, produce the finest and most abundant flowers, and on this account, the plants that are raised from seeds are much to be preferred, as they are not so apt to abound in suckers. If the seeds be sown as soon as ripe, they come up the following spring, and generally flower the third or fourth year from seed, which is earlier than those that are taken from suckers. As the Persian lilac seldom ripens its seed with us, it is usually propagated by suckers, but it is more desirable to multiply the tree by laying down the young branches, which in one year will be sufficiently rooted to transplant.

We cannot close our account of the lilac without observing that it

is amongst those trees that retain their verdure the longest ; and as it cannot be too familiar with us, it is to be hoped that we shall see it creep into our hedge rows, and sometimes border our woodland scenes.

ARTICLE III.

REMARKS ON, WHAT IS A FLAMED TULIP ?

BY MR. JOHN SLATER, FLORIST, CHAPEL WALK, CHEETHAM HILL, MANCHESTER.

I AM induced to forward for insertion in the FLORICULTURAL CABINET the following observations on, what is a flamed Tulip, in consequence of what took place at the York Tulip meeting :—

In the York Tulip schedule flamed varieties were mentioned, and sums of money attached to them as prizes, and being a judge upon that occasion, I very naturally refused to judge, as flamed flowers, those which the committee had selected as such, in consequence of their not having had a beam up the centre. An umpire was called in to decide the dispute, and the decision was given against me, for this reason, viz., because the flowers had the mother or breeder colour in them. In answer to what is a flamed Tulip ? I will quote the opinion of Mr. Groom, given in the “ Florist’s Journal,” for July, 1840. In page 57, line 15th from the top, after describing a feathered Tulip, he proceeds thus :—“ Next to this comes the flamed flower, which should have, besides the feather, a rich beam up the rib of each of the petals, branching off on either side, and the points meeting the feather ; at the same time preserving a sufficiency of the ground colour between the flaming to display it to the greatest advantage.” In this description of a flamed Tulip I perfectly agree ; for what constitutes a flamed Tulip except the beam ? and the cause of the beam is this :—The Tulip in breaking from the breeder leaves a portion of the mother or breeder colour, which runs up the centre of the petal, and then strikes off with the real colour to the feathering ; but why this is so is a mystery which we cannot unravel. It is so, however, and we can only surmise. To say it is an imperfect break would not do, as the majority of the finest Tulips are what are termed flamed ones ; and if, on that account, they are disqualified, there will only remain a few of what are termed first-rate varieties. What is *Salvator Rosa* ? a flamed variety. Would you disqualify one of

the finest Tulips in cultivation on account of the beam, or the mother colour, whichever you may be pleased to term it? What are Pandora, Thalia, Reine de Sheba *alias* Mentor, Ponceau très blanc *alias* Madame Catalina, Aglaia, Bijou des Amateurs, Bacchus, Cerise à belle Forme, Donzelli, Marcellus, Iago, Holmes's King, Polyphemus, Camarine, &c.? Further, what says the Editor of the "Florist's and Amateur's Annual?" In his properties of the Tulip he divides them into six parts, and in his sixth section of the properties, he comes to the marking, and he thus writes:—"The marking of the petals regular and uniform, whether it be a broad or narrow feather round the edges of the petals which are exposed, or a flame up the centre, and branching off, and though very rarely uniform in this respect, the nearer approach the better. So much in regard to the properties for showing." But the writer must have forgot this published opinion, when so lately as the 29th of June he says, "No flower can be good for show if it has the breeder colour in it;" and on the 6th July he says, "A Tulip should not have any of the breeder colour in it." I can only account for this on the following grounds, namely:—The question has not been fairly stated to him. If it was a feathered variety, and had breeder colour in it, I agree with him that it ought to disqualify a pan, providing the other pan or pans have not the same glaring fault. There has never been but one instance, I believe, of the beam and feathering being of the same colour; but I must admit that the nearer the approach to the colour of the feathering so much the better. A Tulip in the north, if the beam is very pale, is not considered of so much value as one very dark. Aglaia, although a pretty variety, is very defective in the beam. In some instances it is uncommonly pale, and at other times the colour is tolerable. The same may be said of many others. If the taste of the York florists is correct, then it will be a mere mockery to offer prizes for flamed Tulips, if those only which are what are termed, and correctly so, neither feathered nor flamed, are to be classed as such. I have a work before me upwards of 100 years old, written by the celebrated Dutch florist, Nicholas Van Kampen, and the properties he lays down are in accordance with what has been previously expressed. The authorities quoted, however, are sufficient to satisfy any Tulip-grower, they being, as they are, the opinions of the best florists in the country; and I trust that the pro-

erties already alluded to will, for the future, form the standard of a flamed Tulip, being persuaded that they are strictly in accordance with the opinions of all England, excepting within a circuit of about thirty or forty miles round York. I must, in justice to Leeds, Wakefield, Halifax, and their neighbourhood, say, that their opinion is in accordance with the general one, and all flamed flowers are judged according to Mr. Groom's standard.

ARTICLE IV.

REMARKS ON HYBRIDIZING PLANTS.

BY AN AMATEUR FLORIST.

I HAVE noticed in the CABINET, from time to time, remarks by the Conductor on encouraging the hybridizing of various classes of plants, and which induced me to turn my attention to the process last season with the *Amaryllis*, *Achimenes*, *Verbena*, *Fuchsia*, *Phlox*, *Pelargonium*, and others. Some of the seeds I obtained early last summer I sowed immediately, and the others early this spring, and now I have, as the result, very numerous, and in almost endless variety, beautifully distinct flowers of the above, with the exception of the *Amaryllis*. The process is easy,—applying the pollen of one flower to the stigma of another. The flower to which the pollen is about to be applied must have its own anthers (containing the pollen) cut away before they burst, after which, the pollen, from the different plant, may be applied to the stigma. If the pollen of the plant to be operated upon is not cut away, the stigma is likely to be operated upon by the pollen of the same flower, and the result be natural seedlings. The stigma, when in a proper state to have the pollen (powder-like) applied, is glutinous outside, and the powder adheres to it. I have noticed that no certain criterion can be relied on as to the form the new plant will take, sometimes I find that the male (pollen) plant is assumed, and in others the contrary. I uniformly found that the more perfect in form both parents were, so was the production, as it respects the colours. I have not had two alike from the same plant; when all the flowers on a plant have been operated upon, by pollen, from one plant, the most decided, strong, and clear colours, give the more distinct in the progeny. It is only by observation, in the progress of the operation and blooming,

that the best results can be safely expected in future attempts as to colours, but in form, where the flowers of both are of fine form, those raised therefrom will certainly be good. As far as the majority of my one year's experiments go, I find, *in colour*, the seedlings partake more of the mother plant; and, *in form*, that of the plant from which the pollen was brought.

The entire process, from first to last, has afforded me much gratification, and those persons fond of flowers will derive pleasure in its pursuit. The results of but a few years application to the system of hybridizing has already added immense charms to the beauties of the stove-greenhouse and flower garden, as well as to fruits, and the process being now carried on in a far more extensive scale, in a few years we shall, no doubt, have quite astonishing results to grace our floral exhibitions, as well as domestic compartments.

I recollect noticing some very strong *objections* to the process of raising hybrid plants being inserted in a publication conducted by the Editor of the Chronicle Newspaper, but, on a recent occasion, I saw in that paper the very opposite is now taken, and it is as highly applauded, so that the condemnation formerly given on florists for their floral productions now attaches to another class, and *practice* has triumphed over theory, and the foolish customs of by gone days.

ARTICLE V.

REMARKS ON THE LIME, OR LINDEN TREE.

BY FLORA.

— “ And the lime at dewy eve

Diffusing odours.”

COWPER.

FASHION reigns over the toilet not with more arbitrary power than she governs the trees of the pleasure garden. She even enters the forest, declaring war against and levelling to the earth all such as are not in favour with her court; and as Caprice generally holds the situation of prime minister to this tyrannical goddess, it is not surprising that Folly should so often be employed as first marshal. Reason, who is deemed a traitor by this government, finds his opposition too weak to oppose such a phalanx, and sees the lofty tree and the lowly shrub alike rooted from our native woods, their antiquity and utility no more availing themselves, than their beauty or singularity influences the whimsical disposition of Fashion, who is thought

to be a spurious daughter of Taste. In vain did the lime fill the sighing breezes with delightful odours,—in vain were its agreeable shade and pretty umbels offered as a ransom to appease Fashion, offended by the litter of its early falling foliage; her influence was too great, and the lime bowed its noble head to the axe of Folly, leaving its thinly scattered offspring to the protection of Obscurity, until Reason return to resume his administration. Monsieur Louis Liger remarks, in 1703, that the lime, or linden-tree, was then gone out of fashion in the French plantations, being supplanted in favour by the hornbeam and the elm. But our celebrated nurserymen, London and Wise, tell us, in 1706, that it was then more in use in England than any other tree “for standards and espaliers, having found the inconvenience of planting elms near the fruit trees, or good plants; because the roots of the elm impoverish all the ground where they grow.” It is a fine tree for the pleasure garden, which induces me to offer remarks upon it, and it well deserves to be in every one.

This tree is the *Φίλυρα* (*philyra*) of the Greek writers, and the *Tilia* of the Latin authors. It is thought that the Greeks named it *Philyra*, because the inner bark formed thin sheets on which they anciently wrote, instead of parchment or paper. The Latin name is supposed to be derived from *πίλον*, which signifies a feather, because the flowers of this tree are produced from a kind of tongue, called the bractes, which very much resembles a feather. The Italians follow the Latin name *Tilia*, from which also the Spanish *Teia*, and the French *Tilleul*, seem derived.

The English title seems to be a corruption of the Dutch *Linde* or *Lindenboom*, or the German *Linden* or *Lindenbaum*, as all our early writers call it Line, or Linden-tree; and as we have now one species of the citrus-tree called Lime, it would be desirable to resume the ancient name of this tree, and call it Linden, to avoid confusing the two.

The linden is a native of Europe, and, according to Thunberg, of Japan also. Mr. Aiton makes it a native of this country; but it is hardly to be supposed that the able compiler of the *Hortus Kewensis* could possibly follow back the register of each individual plant with the scrutiny of a *poursuivant* at arms.

We find no English name for this tree but what is evidently borrowed from the Germans, and our earliest writers mention it as a rare tree.

Dr. Turner tells us, in 1568, "it groweth very plenteously in Essekes, in a parke within two mile from Colichester, in the possession of one Master Bogges; it is also very common in high Germany." Gerard observes, in 1597, "that the female linden-tree groweth in some woods in Northamptonshire; also neere Colchester, and in many places along the highway leading from London to Heningham in the county of Essex. The male linden-tree groweth in my Lord Treasurer's garden in the Strand, and in sundry other places, as at Barnelmes, and in a gardain at Sainte Katharine's, neere London."

Parkinson says, in 1640, "the female linden-tree is planted in many places in our land, chiefly for the large sweet shadow it maketh; the others are very great strangers in this land, scarce to be seen any where."

Evelyn complains, and says, "it is a shameful negligence that we are not better provided of nurseries of a tree so choice and universally acceptable." He tells us, that "the young trees were then sent for from Flanders and Holland, to our great cost, although they were to be found in some of our woods."

Excepting the torrid zone there is no part of the globe whose timber-trees do not thrive in this country as well as in their native soil. The famous linden-tree of the duchy of Wirtemberg, which gave to the city of Neustadt the name of *Neustatd-Ander grossen Linden* (the city of the great Linden), although it was of prodigious height and nine feet in diameter, is not to be compared to one in this country, which grew at Devenham, in Norfolk, ten miles from Norwich, which measured near the ground forty-eight feet in circumference, or sixteen feet diameter; and at some distance higher it girthed thirty-six feet, and in the least part of the trunk it measured twenty-five and a half feet, and was to the uppermost branch, ninety feet in height. (The measurement of this tree was sent to Evelyn by Sir Thomas Brown, of Norwich.)

Switzerland is celebrated by Evelyn for its enormous linden-trees, many of which remain sacred to this day. He particularises the famous linden at Zurich; as also one at Schalouse, under which was a bower composed of its branches, capable of containing 300 persons sitting at ease, and so thick was the foliage that the sun never penetrated.

[To be continued.]

PART II.

LIST OF NEW AND RARE PLANTS.

ACACIA AURIFORMIS. COULTER-SHAPED LEAVED. (Pax. Mag. Bot.) Leguminosæ. Polygamia Monœcia. In the spring season the greenhouse Acacias and Mimosas are the prettiest ornaments, laden, as they usually are, with a profuse mass of globular heads of golden flowers. The light, airy, and elegant appearance of the plants, especially when in bloom, is such, that they merit a place in every greenhouse. The present species is a native of New Holland, and has been in this country some few years. It is a very handsome flowering plant, and can be procured at most of the Nursery establishments at a trifling cost.

ANDROMEDA PHYLLIREFOLIA. PHILLYREA-LEAVED ANDROMEDA. (Bot. Reg. 36.) Ericacæ. Decandria Monogynia. A native of West Florida, from whence it was sent by the late Mr. Drummond. It is a neat evergreen shrubby greenhouse plant, and has bloomed in Messrs. Loddiges's collection. It is probable that it will even endure in the open air in the milder parts of this country. It requires peat soil, and a similar treatment to *Andromeda floribunda*. The flowers are of a snow-white, and hang in rows like pearls on a Negro's neck, in contrast with the very dark green foliage. Each blossom is about half an inch long, about the size of the Irish Heath blossoms.

BEGONIA MEYERII. MR. MEYER'S BEGONIA. (Bot. Mag. 4100.) Begoniaceæ. Monœcia Polyandria. Native country unknown. It has been sent from the Berlin Garden to this country. It is a tall growing, stove species. Leaves large, ovate, of a pale green, slightly tinged with red. Flowers white, produced numerously in large panicles.

CALANTHE MASUCA. LILAC CALANTHE. (Bot. Reg. 37.) Orchidacæ. Gynandria Monandria. A native of Nepal, in the collection of Messrs. Rollison's, of Tooting. Sepals lilac inside, white outside. Petals lilac. Labellum violet-purple. Each blossom is about two inches and a half across.

CEANOTHUS THYRSIFLORUS. THYRSE-FLOWERING. (Bot. Reg. 38.) Rhamnaceæ. Pentandria Monogynia. Seeds of it have been sent to the London Horticultural Society by R. B. Hinds, Esq., who discovered it at San Francisco and Monterey; also found in California. The Horticultural Society have distributed it liberally, under the name of *C. divaricatus*, but it proves to be *C. thyrsoiflorus*. It is a perfectly hardy shrub, with evergreen foliage of a glossy green, and produces numerous dense panicles of bright blue flowers. The plants we have seen in bloom have a very beautiful appearance. It deserves to be in every shrubbery, or trained against an ornamental wall, trellis, &c. It grows rapidly, and soon makes a cover.

CLITORIA FULGENS. BRIGHT-FLOWERING. (Bot. Mag. Bot.) Leguminosæ. Diadelphia Decandria. It is a native of the Organ Mountains of Brazil, seeds of it were sent to Messrs. Veitch's, of Exeter, who exhibited a plant in bloom at the May show in the Chiswick gardens. It is a hot-house, twining, evergreen sub-shrub. The flowers are produced from the axils of the leaves in clustered heads, on a wiry stem about six inches long. Each blossom, pea-formed, is about an inch long, and the same across, of a rich crimson-red colour. The plant appears to bloom freely, and is well deserving a place wherever practicable.

CUMMINGIA TRIMACULATA. THREE-SPOTTED FLOWERED. (Pax. Mag. Bot.) Liliacæ. Hexandria Monogynia. A native of Chili. The flower-stalk grows about a foot high, and is crowned with a loose and spreading panicle of pretty, pendulous, bell-shaped blossoms, attached to short pedicels. Each blossom is nearly two inches across, of a rich blue colour, with a circle of white, and another of black near the centre. It is a very interesting and pretty flowering plant.

ÆONIUM YOUNGIANUM. MR. YOUNG'S HOUSELEEK. (Bot. Reg. 35.) Crossoleaceæ. Dodecandria Dodecagynia. A native of the Canary Islands. The leaves are large, fleshy. The flowers are produced numerously in large panicles. Each blossom is about an inch across, yellow.

ERIOSTEMUM BUXIFOLIUM. BOX-LEAVED. (Bot. Mag. 4101.) Rutaceæ. Decandria Monogynia. A native of New Holland, a handsome greenhouse shrubby plant. The foliage is in the way of *Pimelea decussata*. The flowers are produced numerously for several inches at the extremities of the shoots. Each blossom is about an inch across, flesh-coloured, with a pale-blue tinge down the middle of each petal. It deserves a place in every greenhouse.

LÆLIA PEDUNCULATA. THE PEDUNCULATED. (Bot. Mag. 4099.) Orchidaceæ. Gynandria Monandria. A native of Guatemala, sent by Mr. Skinner to Woburn. The flower-stem rises about a foot high. Sepals and petals of a pretty lilac. Labellum lilac, lip with a yellow stripe, and centre dark crimson. Each blossom is about two inches across.

ODONTOGLOSSUM LÆVE. SMOOTH-LIPPED. (Bot. Reg. 39.) Orchidaceæ. Gynandria Monogynia. A native of Guatemala. The flowers are produced in a long panicle. Each blossom is about an inch and a half across. Sepals and petals orange yellow, blotched and striped with crimson. Labellum lilac-purple, with a white lip. The sepals and petals are green at the underside, spotted with pale brown.

TROPÆOLUM LOBBIANUM. Mr. LOBB'S. (Bot. Mag. 4097.) Tropæoleæ, Octandria Monogynia. Discovered in Columbia, and sent to Messrs. Veitch's, of Exeter, by their collector. It makes a charming appearance when trained to a frame-work, as is done with *T. tricolorum*, and others. The leaves are similar to the common border *Nasturtium*. The flowers are of fine flamed orange-red, the lower petals fringed beautifully. Each blossom is a little more than an inch across, and near two inches long to the tip of the spur. It is a very pretty addition to the lovely tribe.

NEW PLANTS SEEN AT NURSERIES, &c.

At the Royal Gardens, Kew.

FRANCISCEA HYDRANGEAEFORMIS. For the first time in this country it is in bloom here. The flowers are about the size and colour of *F. uniflora*, but are closely arranged in heads, similar to the *Hydrangea*. The plant grows vigorously, the leaves are large, and the flowers fragrant. We remarked on the plant, in a previous number, as being in the collection of Mr. Low's of Clapton. It is a fine species, well deserving a place in every collection.

THUNBERGIA CHRYSOPS. All the *Thunbergias* are beautiful, but this eclipses all others yet known in this country. The flowers are produced singly from the axils of the leaves, have a long tube, narrow at the bottom, gradually widening to half an inch broad at the mouth, and the limb (face of the flower) spreads large. The inside of the tube is yellow, very visible, next a ring of fine pale blue, and the rest part a rich violet. It is an abundant bloomer, and one of the handsomest plants introduced into this country for some years.

At Messrs. Hendersons'.

GLOXINIA DISCOLOR. The stem grows about nine inches high, and terminates in a large tuft of flowers, which are produced on footstalks, four inches long, about forty flowers in a head. They are of a lilac-blue, becoming white nearly at the centre. The leaves are remarkable too; they are very large, having strong yellowish veins. The ground-colour of the upper surface is a dark green, whilst the underside is of a deep blood colour. It deserves a place in every warm greenhouse.

At Messrs. Rollissons', Tooting.

AERIDES MACULOSUM. It approaches nearly to *A. Brooki*. The sepals and petals are beautifully spotted with purple on a light ground, and the tip is of a similar ground, having a large blotch of purple on the lip. The flowers have a very delicious fragrance.

It is a Bombay orchideous plant, well deserving a place in every collection.

PLANTS NOTICED IN BOTANICAL REGISTER NOT FIGURED.

FRITILLARIA KOTSCHYANA.—Discovered near Mount Elburz, and sent to the Dean of Manchester by M. Kotschy. The flowers green and purple, with yellow anthers.

HYMENOCALLIS BISTUBATA.—Discovered by Mr. Hartweg, but uncertain where. It has bloomed in the collection of the Dean of Manchester at Spof-forth.

DENDROBIUM CHLOROPS.—From Bombay, and has lately bloomed at Messrs. Loddiges. The flowers are of a pale nankin colour, having the base of the lip of a pea-green colour.

CATASETUM OCHRACEUM.—From Bogota, sent by Mr. Hartweg to the London Horticultural Society. The flowers are of a deep yellow-ochre colour, it is much in the way of *C. luridum*.

BOLBOPHYLLUM CHEIRI.—From Manilla, and has just bloomed at Messrs. Loddiges. The flowers are of a clear green colour, with brown stripes. Each blossom is about an inch and a half long.

VANDA PARVIFLORA.—From Bombay, and has bloomed at Messrs. Loddiges. The flowers are small, ochre-coloured, having the lip sprinkled with purple spots.

SPATHOGLOTTIS PLICATA.—From Penang. It has bloomed with Messrs. Loddiges. The flowers are of a light purple.

ANEMONE GOVANIANA.—A pretty Alpine plant from Nepal, and which has bloomed in the garden of the London Horticultural Society. The flowers are white, having yellow anthers. It is a hardy herbaceous plant.

EPIDENDRUM HANBURI.—Received from Mexico by R. Hanbury, Esq., of Stamford Hill. The sepals and petals are purple, the lip rose with crimson veins.

PHYSURUS PICTUS.—From Brazil. It has bloomed with Messrs. Loddiges. The flowers are small, white, and have a streak of dark brown down the middle of each sepal and petal.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERY.

ON HEATING A GREENHOUSE.—As an old subscriber to your *FLORICULTURAL CABINET*. I should feel obliged by your informing me the best mode to be adopted for warming a greenhouse of the dimensions of 23 feet by 13 feet during the winter season, as I am about erecting a house, and feel a difficulty what course to adopt, especially after having read in your July number the objections against tank heating, that being the mode I had intended adopting. I do not keep a regular gardener, only an occasional one, therefore wish to adopt that plan that will answer the purpose best, and I am quite a novice as to which would be best, there being so many various opinions. Your noticing this in your next number will oblige,

Blackheath-terrace, July 6, 1844.

A SUBURBAN NOVICE.

[We have seen the tank system in operation in various forms, and the persons who had the management of them reported to us their opinions; and for green-houses we are confident the best plan our correspondent can adopt is to have what is termed hot-water-pipe heating, by which a most beneficial *dry temperature* can be maintained; and in order to have a desired *moist temperature* at certain seasons, a gutter, running entire the length of the piping, or at intervals, a yard

or so of it, being either originally cast with the pipe or one affixed thereto, formed of zinc, lead, tin, or other material, in which water is poured occasionally: the evaporation of moisture may be obtained to any desired degree or period. The cost of this mode of heating is not much more than the tank system for a greenhouse, and the excess of moisture therein in winter is obviated. Any other particulars our correspondent requires, and we can furnish, shall be done with pleasure.—CONDUCTOR.]

REMARKS.

LONDON HORTICULTURAL SOCIETY'S SHOW.

THE last Exhibition of the season in the Gardens at Chiswick took place on Saturday, July 13th.

The large collection of orchidaceous plants sent by Mr. Mylam, gardener to S. Rucker, Esq., obtained the first Prize, Gold Medal; it contained many noble specimens in the highest health. Among them were *Stanhopea tigrina* and *cinnamomea*, producing their singular flowers beneath the bottom of a wire basket; the curious plant producing a yellow *Maxillaria*-like flower spotted with brown, called *Scuticaria Steelii*; the rare *Anguloa Clowesii*, producing a pale-yellow, or rather lemon-coloured flower; and a noble plant of *Miltonia spectabilis*, with 15 lovely blooms; a very fine plant of *Oncidium Lanceanum*; *O. luridum guttatum*, *leucochilum*, and *pictum*; *Zygopetalum crinitum cœruleum*, *Sarcanthus rostratus*, *Cynoches maculatum*, *Brassia Lawrenceana*, and *Lanceana*; *Angræcum bilobum*, *Cynoches ventricosum*, *Lycaste Skinneri* and *macrophylla*, *Cynoches chlorochilon*, with pale-green flowers; *Odontoglossum pulchellum*, *Catasetum citrinum* and *luridum*, *Huntleya violacea*, *Maxillaria Warreana* and *vitellina*, *Epidendrum fragrans*, *Galeandra Bauerii*, *Maxillaria stapelioides*, and a species with very rich flowers called *M. tetragona*. *Cirrhaea picta*, *tristis*, and *Warreana*, with very curious flowers hanging over the side of the pots, and which would have been better shown had they had a sheet of white paper placed beneath them; a pretty specimen of the beautiful *Stanhopea saccata*.—Second Prize to Messrs. Rollisson, of Tooting. Among them were a fine variety of *Calanthe*, with rich violet flowers, called *C. masuca*: a new species or rather variety of *Cymbidium*, with large dark-brown flowers resembling *C. aloifolium*; *Catasetum deltoideum*, with very pretty dark-brown flowers; *Stanhopea tigrina*, and *Wardii*; *Oncidium Lanceanum*; *Aerides quinquevulnerum*, *Miltonia spectabilis*, *Cattleya crispa*; *Acropera Loddigesii*, *Cynoches Loddigesii*, *Epidendrum alatum*, *Lycaste tetragona*, *Isochilus linearis*, *Aspasia lunata*, *Rodriguezia recurva*, *Brassia Lanceana*, and *Oncidium luridum*.—Third Prize to Mr. Robertson, gardener to Mrs. Lawrence. A magnificent plant of *Peristeria alata*, the Panama Dove plant; *Stanhopea eburnea*, *oculata*, *quadricornis*; *Xylobium squalens*; the singular *Mormodes citrinum*, with yellow flowers; *Acropera Loddigesii*, *Maxillaria Deppii*, *M. stapelioides*, *M. tetragona*, *Mormodes aromaticum*, *Galeandra Baueri*, *Epidendrum vitellinum*, *Brassia brachiata*, *Catasetum Russellianum*, *Phaius albidus*, *Epidendrum odoratissimum*.—Fourth Prize to Mr. Redding, gardener to Mrs. Marryat. *Stanhopea oculata*, with six spikes of bloom; *S. grandiflora* and *tigrina*; *Epidendrum variegatum*, *Brassia Lanceana*, *Gongora nigrita*, with very dark flowers; *Oncidium papilio*, *altissimum*, and *pulvinatum*.

Single Specimens of Orchidaceæ.—*Cattleya Loddigesii*, with nine spikes of bloom, from Messrs. Veitch and Sons, of Exeter; *Stanhopea oculata* variety, with twenty flowers, from Messrs. Henderson, of Pine-apple Place. *Vanda Roxburghi*, a small plant, from Mr. Plant, gardener to H. Schroder, Esq., of Brixton; and a new species of *Calanthe*, with pale-violet flowers, called *C. plantaginea*, from Mr. Eyles, gardener to Sir George Larpent, at Putney Heath.

Large Collection of Stove and Greenhouse Plants of Mr. Robertson.—It contained a fine specimen of *Æschynanthus maculatus*, upwards of two feet in diameter, trained hemispherically, and liberally covered with bloom; *Besleria pulchella*, a very pretty plant; *Lasiandra petiolata*, a plant three feet in diameter, and producing very pretty blue flowers; *Phæconoma prolifera*, a very fine

specimen; *Cuphea Melvillai*, two large plants producing large scarlet flowers tipped with green; *Pentas carnea*, a well-bloomed plant; *Manettia cordifolia*; *Statice macrophylla*, with a fine spike of bloom; *S. sinuata*, a neat plant; and a very pretty specimen of *Mirbelia ilicifolia*.

A remarkably fine plant of *Vinca rosea ocellata* in perfect bloom; *Siphocampylus betulifolius*; *Achimenes grandiflora*, a noble specimen, in most profuse bloom; *Angelonia Gardneriana*, prettily-spotted purple flowers, in long spikes; *Leschenaultia formosa*; *Asclepias curassavica*; *Osbeckia chinensis*, rose-coloured flowers; *Clerodendrum calamitosum*; *Cassia corymbosa*.—Second Prize to Mr. Frazer, of the Lea-bridge-road. A very fine specimen of *Kalosanthes coccinea*, loaded with its bright-scarlet flowers; a very large plant of *Vinca rosea alba*; *Roella ciliata*, an admirable plant, covered with its beautiful pale blueish-purple flowers; *Euthales macrophylla*, four feet high, covered with beautiful yellow flowers; *Angelonia Gardneriana*; *Crowea saligna*, *Vinca rosea*, and *Gardoquia Hookeri*; *Boronia viminea* and *Leschenaultia formosa*.—Third Prize to Mr. Epps, of the Bower Nursery, Maidstone. *Coleonema rubrum*, *Sollya heterophylla*, *Clerodendrum squamatum*, *Achimenes multiflora*, *Achimenes grandiflora*; *Brugmansia floribunda*, with orange flowers; *Gloxinia Cartoni*, *Begonia parviflora*, *Torenia scabra*, and *Vinca rosea* and *rosea alba*. Mr. Bruce had a very admirable specimen of *Pentas carnea*, said to have been grown in the open air; *Achimenes longiflora*, *Aphelaxis humilis*, *Clerodendrum squamatum*, *Phymatanthus* or *Pelargonium tricolor*, and *Pimelea decussata*.

Mr. Jackson, of Kingston, had a collection of *Statice*, consisting of *S. sinuata*, a very pretty species; *Pseudo-armeria*, a variety with pink flowers, said to be hardy; with *S. Gmelini mucronata*, *Dickensoni*, *arborea* and *incana*. Messrs. Mountjoy, of Ealing, sent twelve very fine plants of *Lilium eximium*; and Mr. Cuthill, nurseryman, of Camberwell, ten beautifully grown plants of *Lisianthus Russellianus*, a plant for the successful cultivation of which he has been so long celebrated.

New Plants.—By Mr. Robertson, *Saurauja spectabilis*; the flowers in bunches, resembling *Spiræa arifolia*, but shorter in the bunch, and deliciously sweet-scented.—*Chiococca racemosa*, by Mr. Eyles, gardener to Sir George Larpent; small yellow flowers, which were abundantly produced.—Mr. Gad, gardener to Thomas Lenox, Esq., of Plaistow, Essex; *Brugmansia floribunda*.—Messrs. Mountjoy, a plant of *Gloxinea cerina*, with pale pink flowers, and said to be a half-bred *Sinningia*.—Mr. Stanley, a species of *Thysanotus*.—Mr. Frazer, *Gompholobium splendens*, with yellow flowers.—Mr. Ayres, gardener to James Cook, Esq., sent a plant of a hybrid *Achimenes*, said to have been raised between *A. rosea* and *coccinea*, and called *A. Beatonii*.—Mr. Miller, of Ramsgate, sent a large plant of *Petunia punctata*.

Single Specimens.—*Gloriosa superba*, upwards of six feet high, and in splendid bloom. A very curious plant, with pink flowers protruding from all parts of the old wood of the plant, even from the surface of the pot to the extreme point, was sent by Mr. Robertson, and called *Medinilla erythrophylla*; he had another beautiful and singular plant, called *Lemonia spectabilis*.—Mr. Frazer, a magnificent specimen of *Crowea saligna*.—Mr. Hyde, gardener to B. Cotton, Esq., a noble specimen of *Lisianthus Russellianus*, covered with upwards of *three hundred flower-buds*.—Mr. Bailey, gardener to his Grace the Archbishop of York, two plants of *Kalosanthes nitida*, and *grandiflora miniata*; they were three feet high and three feet in diameter.—*Statice sinuata*, by Mr. Jackson; *Achimenes longiflora*, remarkably good, by Mr. Bruce; and *A. longiflora* and *grandiflora*, superlatively excellent, by Mr. Robertson. *Sedum tortuosum*, from Mr. Doran; *Leschenaultia formosa*, from Mr. Poole; *Tristania nerifolia*, with yellow flowers, by Mr. May, of Woodford; *Erica ampullacea*, a splendid plant, by Mr. Dawson, of Brixton-hill; *E. tricolor superba*, by Messrs. Henderson; and *E. tricolor elegans radiata*, an excellent plant, and *eximia*, a fine specimen, by Mr. Robertson, who also sent a grand plant, 10 feet high, of *Nepenthes distillatoria*, the singular Pitcher plant, which was covered with pitchers.

Collections of Heaths.—First Prize: Mr. Robertson had fine plants of *Parmenteriana rosea*, *gemmifera*, *depressa*, *viridiflora*, *cerinthoides major*, *jasminiflora alba*, *Cavendishii*, *ampullacea*, *oblata*, *ampullacea vittata*, *Lannonii*, ven-

tricolor rosea, globosa, superba, eximia radiata, tricolor elegans, and inflata alba.—Second Prize: Mr. Jackson, *E. ampullacea* and a *rubra, cerinthoides*, Westphalingia, *jasminiflora alba*, Jacksoni, Massoni, *tricolor superba*, a seedling; *ventricosa*, Bothwelliana, *purpurea, inflata, princeps, eximia, and gemmifera*; *E. jubata*, 4 feet high and 4 feet through, very fine; a seedling from Shannoni, a good variety; and *ampullacea vittata.*—Messrs. Fairbairn sent *jasminiflora alba, ampullacea, vittata, eximia, cubica major, inflata, Irbyana, Shannoniana, princeps, procumbens, tricolor (Lee's), tricolor elegans, impulsu, sanguinolenta, and Savilliana.*—From Mr. Epps, of Maidstone, *tricolor, tricolor (Lee's), Savilliana, ventricosa superba, carnea, globosa and rosea, gemmifera, eximia, jubata, jasminiflora alba, inflata, metuliflora bicolor, Templeana, ampullacea, and ampullacea rubra.*—Mr. Green, *elegans, eximia, Cavendishii, ampullacea, Shannonii, ventricosa superba, viridiflora, metuliflora bicolor, tricolor elegans, inflata, Massonii, ampullacea vittata, Coventryana, parmenteriana rosea, depressa, and jasminoides.*—Mr. Bruce sent *tricolor elegans, princeps, Irbyana, viridiflora, ampullacea, eximia.*

Roses in Pots.—By Mr. Dobson, gardener to Mr. Beck. The best were *Elise Sauvage, Barbon, General Allard, Queen of the Bourbons, Highclere* seedling, resembling *Devoniensis, Celimene, and Augustine Mayet.*—Messrs. Lane's collection: *Psyche, Charles Duval, Elise Sauvage, Fabvier, Mirabile, Comte d'Osmond, Triomphe de Luxembourg, Napoleon, Duc d'Aumale, Emilie Courtier, Princess de Mecklenberg, Cramoisie superieure, Diana Vernon, Proserpine, Taglioni, and Gouda.*

Cut Roses.—First Prize. Messrs. Paul, of Cheshunt: *Charles Duval, Jaune Desprez, Bouquet à Flore, Crested Provence, William Jesse, Lamarque, General Allard, Grain d'Or, Madame Deschouleres, Celimene, Amiable Queen, Icheymaker, Nannette, Acidalie, Emilie Courtier, Félicité perpétuel, Edward Jesse, Eugene Beauharnois, Josephine Malton, Aubernoir, African Black, Duchess of Sutherland, Mrs. Bosanquet, Charles Sir, Niphets, a splendid kind; Madame Nerard, Louis Buonaparte, Miss Elliott, Devoniensis, Perpetual Rivers, Paul Joseph Augustine Lelieur, Jaune, Comte de Paris, Madame Laffay, Bourbon Queen, Proserpine, Fleur d'Amour, Lady Stewart, Marie de Nerra, Pompone bicolor, Enchantress, and Ne Plus Ultra.*—Second Prize. Messrs. Lane: *Devoniensis, General Christiana, Grandissima, Duchess Montebello, Prince de Provence, Blush Provence, D'Angrusseau, Duc de Trevis, Charles Duval, White Globe Hip, Belle de Rosny, Cynthe, Chatelaine, Paul Joseph, Queen, Lafitte, La Seduisante, Berryer, General Foy, Boula de Nanteuil, Triomphe de la Guerre, Ohl, Eugene Barbot, Bizarre Marble, Queen of Denmark, Madam Hardy, Lady A. Peel, Duchess of Sutherland, William Jesse, Prince of Wales, Aubernon, Robin Hood, Madame Laffay, and Miss Elliott.*—Third Prize. Messrs. H. and C. Cobbett, nurserymen, of Chobham, near Bagshot: *William Jesse, Madame Laffay, Nuralba, Royal Provence, Unique Provence, Victor Hugo, Bouquet de Flore, Lady Warrender, Armosa, Acidalie, Madame Desprez, Félicité Perpétuel, Village Maid, Madame Marana, General Allard, and Elise Sauvage.*—Fourth Prize. Mr. Francis, nurseryman, of Hertford: *Jaune Desprez, Augustine Lelieur, Rose du Roi, Belle Marie, Lamarque, Madame Laffay, Queen of Denmark, Triomphe de Plantier, Latifolia, Louis Buonaparte, Madam Newman, William Jesse, General Lamarque, Devoniensis, General Soyez, Leopold, Chatelaine, Beauty of Billiard, Elise Sauvage, Princess Helene, Lady Fordwich, Queen of Bourbons, and Comte de Paris.*—Fifth Prize. Mr. Cripps: *Euphrosine, Nelly, New Village Maid, Triomphe des Dames, Prudence Røser, Armide, Jaune Desprez, Madame Laffay, Bourbon Queen, Leopold, William Jesse, Lyonnaise, L'Anglaise, La Pactole, Daphne, and La Colambraine.*—Moss Roses were produced by Messrs. Lane and Cobbett; but the latter were certainly inferior. Messrs. Lane's consisted of *Crimson, Mottled, Crested, Perpetual White, Prolific, Luxembourg, Malvina, White Bath, Common, Eclatante, and Aspase*; and the best of Messrs. Cobbett's were *Unique, Prolific, Luxembourg, Blush, and Mousseuse Partout.*

Two magnificently grand Wardian cases were sent for exhibition by Mr. Potts, of Shrewsbury. They were glazed with the finest sheet-glass, and the framework, which was Gothic, was all gilded. We cannot imagine a finer piece of

furniture for a drawing-room than one of these cases, nor a finer habitation for plants while in the drawing-room.

The exhibition of *Fuchsias* was considerable, and many fine and magnificent specimens were exhibited; but good as they were, there was too great a similarity in the colour, and these elegant flowers will never make an effective display unless the sorts are judiciously chosen, and a watchful regard paid to contrast of colour. Each collection should contain the greatest range of variety the flower possesses. First Prize: Large Silver Medal, Mr. Gaines, for *Decora*, *Nobilissima*, *Britannia*, *Alata*, *Eclipse*, *Robusta*, *Paragon*, *Eppsii*, *Champion*, *Pulcherrima*, and *Defiance*. Second Prize: Mr. Laing, for *Venus Victrix*, *Eppsii*, *Dalstoni*, *Victory*, *Stanwelliana*, *Defiance*, *Bridegroom*, *Kentish Hero*, *Insignis*, *Conspicua arborea*, *Chandlerii*, and *Magnifica*. The Silver Knightian, Mr. Ayres, gardener to W. Cook, Esq., *Brooklands*, *Blackheath*, for *Attractor*, *Balloonii*, *Stanwelliana*, *Epps's Marie*, *King John*, *Eppsii*, *Speciosa*, *Globosa major*, *Elegans*, *Exoniensis*, *Excelsa*, and *Duke of Wellington*. The same medal to Mr. Kendall, of Stoke Newington, for *Formosa elegans*, *Venus Victrix*, *Brockmannii*, *Eppsii*, *Stanwelliana*, *Compacta*, *Britannia*, *Defiance*, *Eclipse*, *Alata*, *Victory*, and *Robusta*. The Silver Banksian Medal to Messrs. Lane and Son, for *Laneii*, *Pulcherrima*, *Robusta*, *Defiance*, *Exoniensis*, *Magnifica*, *Fulgens*, *Paragon*, *Alata*, *Britannia*, *Brockmannii*, and *Eppsii*; and the same medal to Messrs. Henderson, Pine-apple-place, for *Le Chinois*, *Pulcherrima*, *Tricolor*, *Formosa elegans*, *Rosea elegans*, *Chauverii*, *Majestica*, *Closiot*, *Eppsii*, *Defiance*, *Lady Walsingham*, and *Venus Victrix*.

Picotees.—An excellent display of these beautiful flowers, which are unquestionably rising in public estimation.

Amateurs' Class. First Prize: Large Silver Medal, Mr. C. Embleton, gardener to T. Barnard, Esq., for *Wilmer's Prince Royal*, *John's Prince Albert*, *Sharp's Gem*, *Barnard's Mrs. Barnard* and *Lady Douro*, *Dickson's Bride* and *Trip to Cambridge*, *Wildman's Isabella*, *Burrough's Lady Douro*, *Robinson's Notting-ham Hero*, *Sharp's Wellington*, *La Delicate*, and *Read's Favourite*, *Burrough's Mrs. Bevan*, *Waine's Victoria*, *Brinkler's Lady Chesterfield*, *Gidden's Miss Desborough*, *Teaser*, and *Vespasian*, *Hogg's Queen of England*, *Burrough's Lady Peel* and *Mrs. Benyon*, *Ely's Marquis of Waterford*, and *Anneley's Sanspariel*. Second Prize, G. Edmonds, Esq., *Wandsworth*, *Silver Knightian Medal*, for *Wilmer's Prince Royal*, *Barrand's Bride*, *Borderer*, and *Eclipse*, *Burrough's Mrs. Bevan*, *Annersley's Sanspariel* and *Mrs. Willoughby*, *Jessop's Sir W. Middleton*, *Cox's Victoria Regina*, *Wildman's Isabella*, *Wain's Victoria*, *Dickson's Trip to Cambridge*, *Kirtland's Wellington* and *Princess Augusta*, *Wood's Lady St. John*, *John's Prince Albert*, *Gidden's Sir R. Peel*, *Princess Royal*, *Teaser*, and *Don Juan*, *Lady Flower*, *Garrat's Lady Dacre*, *Brinkler's Conductor*, and *Crask's Queen Victoria*.

Nurserymen's Class. First Prize: Large Silver Medal, Mr. J. Dickson, of Acre-lane, for *Barrand's Portia* and *Cornelius*, *Sharp's Gem*, *Criterion*, *La Delicate*, and *Agitator*, *Dickson's No. 10*, *No. 2*, *Lady Jane Grey*, *Charles Stamford*, *No. 8*, and *No. 6*, *Burrough's Mrs. Bevan*, *Gidden's Vespasian*, *Hero of Notting-ham*, *Wildman's Isabella*, *Gidden's Lydia* and *Teaser*, *Kirtland's Princess Augusta of Cambridge*, *Beauty of Reading*, *Queen Victoria*, and *Duke of Wellington*, *Wain's Queen Victoria*, and *Wilmer's Prince Royal*. The Second Prize, *Silver Knightian Medal*, Messrs. Norman, of Woolwich, for *Ely's Field Marshal*, *Halliday's Henrietta*, *Crask's Victoria*, *Wain's Queen Victoria*, *Dickson's Trip to Cambridge*, *Sharp's Gem*, *Barrand's Bride* and *Eclipse*, *Norwich Rival*, *Barnard's Mrs. Barnard*, *Wildman's Isabella*, *Burrough's Lady Flower* and *Lady Douro*, *Bennet's Seedling*, *Garrat's Champion*, *Woolwich Beauty*, *Gidden's Vespasian*, *Lady Dacre*, *Purpurea elegans*, *Halliday's Fair Phillis*, *Sharp's Invincible*, *Robinson's Duke of Wellington*, *Lovegrove's No. 5*, and *Purple Perfection*. Third Prize, *Silver Banksian*, Mr. H. Ward, Woolwich, for *Martin's Prince Albert*, *Gidden's Lady Dacre*, *Burrough's Lady Flower* and *Mrs. Bevan*, *Green's Queen*, *Crask's Victoria*, *Annette*, *Trude's Queen Victoria*, *John's Prince Albert*, *Wilson's Miss Fanny Irby*, *Brinkler's Lady Chesterfield*, *Barnard's Mrs. Barnard*, *Martin's Queen of Violets*, *Wilmer's Prince Royal*, *Sharp's Invincible* and *Countess De Grey*, *Gidden's Vespasian*, *Burrough's Jim*

Crow, Seedling, Purple Perfection, Dickson's Trip to Cambridge, Wain's Queen Victoria, Wood's Lord Hitchbrooke. Fourth Prize, Mr. Willmer, of Sunbury, for Gidden's Sir R. Peel, Miss Desborough, and Vespasian, Hufton's Queen of Sheba, Burrough's Miss Jane and Aurora, Willmer's Queen, Barrand's Portia, Cornelius, and Borderer, Dickson's Trip to Cambridge, Brinkler's Fairy Queen, Willmer's Peter the Great, Miss Browning, and Prince Royal, No. 10, Sharp's Cleopatra, Kirtland's Princess Augusta, Trude's Queen Victoria, Ely's Mrs. Horner, Field Marshal, and Marquis of Waterford, Hogg's Lady Acland, and Newell's Harlequin.

FLORICULTURAL CALENDAR FOR AUGUST.

GREENHOUSE PLANTS.—All exotic trees and shrubs belonging to this department, that are in want of larger pots, or refreshment of new soil, should (if not performed last month) immediately be done.

Pelargoniums.—Plants done blooming should now be cut down; this will induce them to push fresh shoots; when they become two inches long, the plants should be repotted, (not before,) shaking off the old soil and replacing it with fresh compost. The young shoots thus produced will require thinning; those cut away clean may be struck where required. *Calceolarias* should be increased. *Verbenas* should now be increased in order to get well established plants to endure winter. This is the proper time to propagate *Aloes*, *Sedums*, and all others of a succulent nature, by means of suckers or bottom offsets; when detached from the parent, they should be potted singly into small pots, using light dry compost, and watering sparingly till they have taken root. In the first or second week at furthest, inoculation may be performed on any kinds of the *Citrus* genus. *Camellias* to bloom early should be placed in the greenhouse.

FLOWER GARDEN.—Propagate by means of slips, and parting the roots of any double-flowered and other desirable fibrous-rooted perennial plants done flowering. *Auriculas* should be cleared of all dead leaves, and shifted into fresh pots; prick out of the seed bed, where it was omitted last month, Seedling *Auriculas* and *Polyanthuses*, and place in a shady situation; seeds may also be sown of both kinds in boxes or pans. *Carnations* may still be layered, also *Sweet-Williams*, the earlier in the month the better. Those which were layered four or five weeks ago will now be sufficiently rooted to be taken away and planted in beds or pots. Also plant out *Pink* pipings, which were put in in June. Sow seeds of all kinds of bulbous-rooted plants in pans or boxes, such as *Spring Cyclamen*, *Anemones*, *Ranunculuses*, &c. &c. Those kind of bulbs wanted to increase should be taken up if the leaves be decayed, and the offsets taken off. Transplant into nursery beds seedling, perennial, and biennial plants sown in spring. In dry weather gather those flower seeds that are ripe of any desired kinds. Plant out such kinds of autumn flowering bulbs as yet remain unplanted. *Heartsease*, towards the end of the month, should be propagated by slips, put into a shady border, and kept quite moist till they have taken root; these will form fine strong plants for blooming the spring following. Buds of *Roses* may still be put in, the earlier the better. Any budded early and looking fresh may have the bandage loosened to allow room for swelling. All shoots below the bud should be rubbed off. *Chrysanthemums* should be topped, if not done last month, in order to form compact heads of flowers. The tops put in make dwarf, late blooming plants. *Mignonette* to bloom during winter should now be sown in pots.

Ranunculuses, &c., roots of, should now be taken up, and gradually and well dried.

DAHLIAS.—Thin out the shoots where large flowers are required. Water should be given copiously every evening, during dry weather. A strata of manure should be laid over the roots, which tends to promote the vigour of the plants.





1. *Inga pulcherrima*. 2. *Hindsia Violacea*.

THE
FLORICULTURAL CABINET,

SEPTEMBER 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

INGA PULCHERRIMA.

THIS very handsome flowering plant is a native of Mexico, requiring in this country to be grown in a warm greenhouse. It flourishes freely in equal portions of sandy peat, loam, and well-rotted leaf mould, having a liberal drainage. It has bloomed freely in the collection of Mr. Jackson of Kingston Nursery, and who has exhibited pretty specimens of it. It is easy of culture, very ornamental, and interesting, and deserves to be grown wherever practicable. Also, may be procured at a cheap price.

HINDSIA VIOLACEA. PORCELAIN-BLUE-FLOWERED.

This very handsome flowering greenhouse plant is closely allied to the *Rondeletias*, and was received from Brazil by Messrs. Veitch's of Exeter, who have exhibited specimens at the London shows. It is very easy of cultivation, growing freely and blooming profusely. It deserves to be grown in every greenhouse, the rich blue flowers being highly ornamental.

ARTICLE II.

HINTS ON THE EARLY FLOWERING OF SEEDLING PLANTS REQUESTED.

I OBSERVE an article in this month's Number of your most useful and valuable CABINET, entitled "Remarks on Hybridizing Plants, by an Amateur Florist," where he states that he directed his attention to the process last season with the "Amaryllis, Achimenes, Verbena, Fuchsia, Phlox, Pelargonium, and others;" and that now, this season, he has, "as the result, very numerous, and in almost endless variety, beautifully distinct flowers of the above, with the exception of the Amaryllis."

It is, in my opinion, of great consequence to all, and much more so to those who hybridize plants extensively, to obtain the result of their labours as soon as possible, and ascertain what value and properties the numerous seedling plants may possess, as we may be, and in all probability are, crowding our houses with hundreds of the same kind, and more likely thousands of plants that are worse than those we have procured the seed from, and therefore not worth keeping; for I consider no seedling variety worth house room and trouble that does not possess properties either in form or colour to mark it as a distinct and acceptable variety from any other yet produced; for, during the last few years, we have seen the market inundated with all sorts of new flowers, many of them having no other recommendation than that they are new hybridized varieties, no attention being paid to whether they are better or worse than their parents. And as I have found from experience how difficult it now is, after the many beautiful hybridized varieties of all florist flowers that have been sent out, to obtain a new plant that can recommend itself either for its novelty in fine form, or beauty of colour, or both combined; the great object of every one who raises seedlings must be to have them to produce their flowers as soon as possible. Yet, notwithstanding all my care with seedling Fuchsias, Pelargoniums, and some others, I cannot induce them to flower until the second season, or about eighteen months after sowing, and sometimes longer. Under these circumstances I would feel much obliged if your correspondent would favour me with a few hints to make my seedling Fuchsias and Pelargoniums flower early, as he has succeeded in flowering his of last summer's sowing.

This year I am following out a plan with some seedling *Pelargoniums* which were sown last season, about the end of July, viz., having given them a cool greenhouse all winter, I have them now planted out in pots in the open border, where they are growing most luxuriantly, but as yet without showing any flower buds. As the season advances, and before the cold weather sets in, I shall remove them to the greenhouse, where I expect them to flower before winter.

I have also many seedling *Fuchsias* of last season's sowing, but none of them have any indication as yet, nor do I expect them to flower this season. Thus the greenhouse must be occupied with seedling plants, which may turn out to be such as I would never think to occupy a border in the garden with in summer, far less crowding greenhouses with in winter, to the detriment of other and finer plants. So a few hints from "An Amateur Florist" will oblige, also,

Edinburgh.

AN AMATEUR.

[We trust our correspondent, "an Amateur Florist," will comply with the request. If our Edinburgh correspondent will take care to have flowers of fine form as parents, the produce, no doubt, will be so in shape. Our *Fuchsias*, *Verbenas*, and other plants, seed sown in February, bloom by June following.—CONDUCTOR.]

ARTICLE III.

REMARKS ON THE ALOE.

BY SENEX.

THE derivation of this name is uncertain. Beginning with the syllable *al*, it is, perhaps, of Arabian origin; especially as the plant is much venerated in the East. In the Hebrew, a cognate language, it is called *ahaluh*; some derive *Aloes* from the Greek *als* (the sea); others from the Latin, *adolendo*; but this can only refer to the *Aloe-wood*, which is used in sacrifices for its fragrance. On the whole it is probable the name was first applied to the *Aloe-wood*, and hence transferred to the common *Aloes* on account of their bitterness. Its medicinal virtues were made known to us by *Dioscorides*, the physician of *Cleopatra*; and it is also mentioned by *Plutarch*. The name *Aloe* is retained by all the European nations.

From the specimens we are in the habit of seeing in this country,

we should be inclined to think that the utility of the Aloe far surpassed its beauty, and to rank it, as a vegetable, with the camel and the elephant in animal life. Like the larger animals, it is confined to hot, or comparatively uncivilized countries. Its appearance, which resembles a collection of huge leathern claws, armed with prickles, is very formidable; and even the smaller species have a sort of monstrosity of size in their parts, though small as a whole. But notwithstanding the extraordinary utility of the Aloe, those who have seen it in its native country, and in full flower, describe it as scarcely less remarkable for elegance and beauty. The larger and more useful kinds appear to be also the most beautiful. Rousseau uses the epithet beautiful in speaking of the great American Aloe, or Agave.

“Nature seems to have treated the Africans and Asiatics as barbarians,” says St. Pierre, in speaking of the Aloe, “in having given them these at once magnificent, yet monstrous vegetables; and to have dealt with us as beings capable of sensibility and society. Oh, when shall I breathe the perfume of the honeysuckle?—again repose myself upon a carpet of milk-weed, saffron, and blue-bells, the food of our lowing herds? and once more hear Aurora welcomed with the songs of the labourer, blessed with freedom and content?”

The kind chiefly used in medicine is the Barbadoes Aloe, the preparations from which are eminent for the nauseousness of their bitter. “As bitter as aloes” is a proverbial phrase.

The most remarkable of the Aloe tribe is the great American Aloe, named by botanists Agave, which name is derived from the Greek, and signifies admirable or glorious; called by the French *aloe en arbre* (tree Aloe), and also *pitte*. The natural order in which it should be arranged is uncertain. Bernard Jussieu placed it with the Narcissi, and Anthony Jussieu with the Bromeliaceæ. It is a native of all the southern parts of America. The stem generally rises upwards of twenty feet high, and branches out on every side towards the top, so as to form a kind of pyramid. The slender shoots are garnished with greenish-yellow flowers, which come out in thick clusters at every joint, and continue long in beauty; a succession of new flowers being produced for near three months in favourable seasons, if the plant is protected from the autumnal cold. The elegance of the flower, and the rarity of its appearance in our cold climate, render it an object of such general curiosity that the gardener who

possesses the plant announces it in the public papers, and builds a platform round it for the accommodation of the spectators. The popular opinions, that the Aloe flowers but once in a century, and that its blooming is attended with a noise like the report of a cannon, are equally without foundation. Some other plants are said to blow with this explosion. Thunberg says of the Talipot-tree, that when it is on the point of bursting forth from its leafy summit, the sheath which envelops the flower is very large, and when it bursts makes an explosion like the report of a cannon.

Miller suggests a curious and not improbable origin of this error with regard to the Aloe. "I suppose," says he, "the rise of this story might proceed from some persons saying, when one of these plants flowered, it made a great noise; meaning thereby, that whenever one of them flowered in England, it was spread abroad as an uncommon thing, and occasioned a great noise among the neighbouring inhabitants; most of whom usually repair to see it, as a thing that rarely happens, and as a great curiosity." The fact is, that the time which this plant takes to come to perfection varies with the climate. In hot countries, where they grow fast, and expand many leaves every season, they will flower in a few years; but in colder climates, where their growth is slow, they will be much longer in arriving at perfection. The leaves of the American Aloe are five or six feet long, and from six to nine inches broad, and three or four thick.

Millar mentions one of these plants in the garden of the King of Prussia, that was forty feet high; another in the royal garden at Friedrichsberg in Denmark, two-and-twenty feet high, which had nineteen branches, bearing four thousand flowers; and a third in the botanic garden at Cambridge, which, at sixty years of age, had never borne flowers. He specifies some others, remarkable for the number of their flowers, but does not mention the age of any one at the time of flowering.

"With us," says Rousseau, "the term of its life is uncertain; and after having flowered, it produces a number of offsets, and dies."

Brydone, speaking of the approach to the city of Agrigentum, says, "The road on each side is bordered by a row of exceeding large American Aloes; upwards of one-third of them being at present in full

blow, and making the most beautiful appearance that can be imagined. The flower-stems of this noble plant are in general betwixt twenty and thirty feet high (some of them more), and are covered with flowers from top to bottom; which taper regularly, and form a beautiful kind of pyramid, the base or pedestal of which is the fine spreading leaves of the plant. As this is esteemed in northern countries one of the greatest curiosities of the vegetable tribe, we were happy in seeing it in so great perfection; much greater, I think, than I had ever seen it before.

“With us, I think, it is vulgarly reckoned (though I believe falsely) that they only flower once in a hundred years. Here I was informed, that, at the latest, they always blow the sixth year, but for the most part the fifth. As the whole substance of the plant is carried into the stem and the flowers, the leaves begin to decay as soon as the blow is completed, and a numerous offspring of young plants are produced round the root of the old one. These are slipped off, and formed into new plantations, either for hedges or for avenues to their country-houses.” Thunberg says that this Aloe is very common at the Cape; and although not a native, but imported from the botanic gardens of Europe, blossoms finely every year.

A kind of soap is prepared from the leaves, and the leaves themselves are used for scouring floors, pewter, &c.; their epidermis is serviceable to literature as a material for writing upon. The following extract from Wood’s Zoography will give some idea of the general utility of this extraordinary plant:—

“The Mahometans respect the Aloe as a plant of a superior nature. In Egypt it may be said to bear some share in their religious ceremonies; since whoever returns from a pilgrimage to Mecca hangs it over his street-door as a proof of his having performed that holy journey. The superstitious Egyptians believe that this plant hinders evil spirits and apparitions from entering the house; and on this account, whoever walks the streets in Cairo, will find it over the doors of both Christians and Jews.”

Maximilian, in his Travels in Brazil, mentions a species of *Agave* which grew by the sea-side (*Agave fœtida*), of which he says—“Its smooth-edged stiff leaves, eight or ten feet long, form strong hedges; and from the middle rises a thick stem thirty feet high, which bears

at the top yellowish green flowers, and gives the landscape an original appearance. The pith of the stem, called *Pitta*, serves the collectors of insects instead of cork."

May not the French name *Pitte* be taken from this word *Pitta*?

Lavaysse, in his "Venezuela," says, the inhabitants make ropes from the *Agave fetida* :—

"The leaves of the different specimens of Aloe, as well as the Agave, are highly serviceable to the natives of the countries where they grow. The negroes in Senegal make excellent ropes of them, which are not liable to rot in water; and of two kinds mentioned by Sir Hans Sloane, one is manufactured into fishing-lines, bow-strings, stockings, and hammocks; while the other has leaves, which, like those of the wild pine and the banana, hold rain-water, and thus afford a valuable refreshment to travellers in hot climates. The poor in Mexico derive almost every necessary of life from a species of Aloe. Besides making excellent hedges for their fields, its trunks serves instead of beams for the roofs of their houses, and its leaves supply the place of tiles. From these they obtain paper, thread, needles, clothing, shoes, stockings, and cordage; from the juice they make wine, honey, sugar, and vinegar."

Such of the Aloes as do not require a stove will bear the open air, in our climate, from the end of March to the end of September. During the winter they should be watered about once in a month; in the summer, when the weather is dry, once in a week or ten days; but when there is much rain they should be sheltered from it, or they will be apt to rot. If the weather be mild, they may be placed where they may receive the fresh air in the day-time for a month after they are housed; after that the windows should be closed. They should not be put into large pots, but should be removed into fresh earth every year, which should be done in July. As much of the earth should be shaken away as possible, the roots opened with the fingers, and such as are decayed taken off; but great care must be taken not to break or wound those which are young and fresh. Water them gently when newly planted, place them in the shade for three weeks, and if the weather is hot and dry, water them in a similar manner once or twice a week. Most of the species may at this time be increased by offsets, which should be planted in very small pots; and if, in taking off the suckers, you find them very

moist where they are broken from the mother-root, they should lie in a dry shady place for a week before they are planted. When planted, treat them like the old plants. Such kinds as do not afford plenty of offsets may generally be propagated by taking off some of the under leaves, laying them to dry for ten days or a fortnight, and planting them, putting that part of the leaf which adhered to the old plant about an inch or an inch and a half into the earth. This should be done in June.

There are few things, I believe, more venerable, more eloquently impressive in their antiquity, than an old tree. The ruins of an old and noble edifice, of which every shattered fragment, every gaping cranny, complains of the destructive hand of time, is young and modern in our eyes, compared with that which still survives its touch,—the old ivy, that still, with every succeeding year, moves slowly on, knitting its creeping stalks into every crevice, and carrying its broad leaves up to the very summit. What can be more venerable than the far-spreading roots of an old elm or oak tree, veining the earth with wood! Cross but that little piece of wood, called the wilderness, leading from Hampstead towards North End, where the intermingled roots are visible at every step, casing the earth in impenetrable armour, and forming a natural pavement, apparently as old as time itself—can all the antiquities of Egypt command a greater reverence?

The larger species of Aloe, from the immensity of its size, and the known slowness of its growth, must speak the same impressive language. Mr. Campbell has put it in a noble attitude for the occasion :

“Rocks sublime

To human art a sportive semblance bore,
 And yellow lichens colour'd all the clime
 Like moonlight battlements, and towers decay'd by time.
 But high in amphitheatre above,
 His arms the everlasting aloe threw.”

The Abbé la Pluche gives an interesting account of the uses of the Chinese Aloe, commonly called Wood-aloes, or Aloes-wood; from whence, as has been supposed, the name of aloe has been transferred to the common species.

“This Aloe,” says he, “is as tall as the olive-tree, and of much the same shape: there are three sorts of wood contained under its bark; the first is black, compact, and heavy; the second swarthy,

and as light as touchwood; the third, which lies near the heart, diffuses a powerful fragrance. The first is known by the name of eagle-wood, and is a scarce commodity; the second, calembouc-wood, which is transported into Europe, where it is highly esteemed as an excellent drug; it burns like wax, and, when thrown into the fire, has an aromatic odour. The third, which is the heart, and called calambac, or tambac-wood, is a more valuable commodity in the Indies than gold itself. It is used for perfuming the clothes and the apartments of persons of distinction; and is a specific medicine for persons affected with fainting-fits, or with the palsy.* The Indians, likewise, set their most costly jewels in this wood. The leaves of this tree are sometimes used instead of slates for roofing houses; are manufactured into dishes and plates, and, when well dried, are fit to be brought to table. If stripped betimes of their nerves and fibres, they are used as hemp, and manufactured into a thread. Of the points, with which the branches abound, are made nails, darts, and awls. The Indians pierce holes in their ears with the last, when they propose to honour the devil with some peculiar testimonies of their devotion. If any orifice or aperture be made in this tree by cutting off any of its buds, a sweet vinous liquor effuses in abundance from the wound, which proves an agreeable liquor to drink when fresh, and in process of time becomes an excellent vinegar. The wood of the branches is very agreeable to the taste, and has something of the flavour of a candied citron. The roots themselves are of service, and are frequently converted into ropes. To conclude, a whole family may subsist on, reside in, and be decently clothed by, one of these Aloes.”

The common writing-paper in Cochin-China is made from the bark of this tree; of which the botanical name is *aquilaria*, from *aquila*, an eagle, so named because it grows in lofty places; and from its bitter taste, also termed Wood-aloes.

The great antiquity of the use of Wood-aloe as a perfume is shown by the Bible: “All thy garments,” says a passage in the Psalms, “smell of myrrh, and aloes, and cassia:” and Solomon,

* The pieces of this wood are carefully preserved in pewter boxes, to prevent their drying; when used, they are ground upon a marble with such liquids as are best suited for the purpose intended.—HARRIS'S *Natural History of the Bible*, p. 9.

addressing the object of his love, says, "Thy plants are an orchard of pomegranates, with pleasant fruits; camphire, with spikenard; spikenard and saffron; calamus and cinnamon, with all trees of frankincense; myrrh and aloes, with all the chief spices: a fountain of gardens, a well of living waters, and streams from Lebanon:" upon which, the object of his love, as if in an enthusiasm of delight at his speaking so of the place she lives in, beautifully exclaims, "Awake, O north wind; and come, thou south; blow upon my garden, that the spices thereof may come out. Let my beloved come into his garden, and eat his pleasant fruits."

Moore describes the Aloes-wood burnt as a perfume in a Persian palace :

" Here the way leads o'er tessellated floors,
Or mats of Cairo, through long corridors,
Where, ranged in Cassolets, and silver urns,
Sweet wood of aloe or of sandal burns;
And spicy rods, such as illumine at night
The bowers of Tibet, send forth odorous light,
Like Peri's wand, when pointing out the road
For some pure spirit to its blest abode."

Latrobe describes a very beautiful Aloe growing at the Cape, with most brilliant flowers :

"Large Aloes were interspersed among the bushes, and with their broad leaves form a striking contrast to the many small-leaved evergreens which surround them. Some of them were in full bloom, towering above the thicket, and one more perfect than the rest was brought into the waggon. The flower consisted of seven branches, one in the centre, and six surrounding it at regular distances. The centre branch was a foot and a half long, the rest about thirteen inches, all thickly covered with a succession of long, bell-shaped flowers, each orange-coloured at the stem, and passing into bright vermilion towards the top. The brilliant appearance of this huge flower, or mass of flowers, disposed like a chandelier, and mounted on a stem six feet in height, with a capital of massive leaves, spreading above three feet in diameter, is beyond conception grand."

He mentions another, of smaller growth, extremely beautiful also :

"The waste produces some beautiful plants, among which I particularly noticed the Fahlblar, a species of Aloe, the leaves of which

are round, of a pale blue colour, and spreading near the ground; the stalk about a foot long, and the flowers, which are bell-shaped, and of a deep scarlet, hanging down in clusters."

A lover of flowers will sympathize with this author in the regret he describes himself to have felt, in the course of preparation for building a new church: "By the grubbing up, and removing these stones, which may have lain there since the deluge, many flowers, much beautiful shrubbery, and a great quantity of Aloes were destroyed. I defended them as long as I could, but was obliged to submit to the necessity of using the stones. The ground was strewed with flowers and bulbs, shattered Aloe-leaves and beautiful plants, but I was assured for my comfort, that, after a short rest, the earth would bring forth abundantly, and the Aloes and Fahlblar again adorn the spot."

ARTICLE IV.

REMARKS ON GROWING PLANTS IN GLASS CASES,

BY CALEDONICUS.

(Continued from page 157.)

THE great influence which light thus exerts on the colour and properties of plants must be regarded as altogether local in its operation, affecting only those parts to which it has free access; and, accordingly, the green colour, and other properties to which light gives rise, may be again obliterated by the simple exclusion of that powerful agent. "Thus, if a portion of a growing fruit," says M. Senebier, "be covered with a piece of tin foil, the uncovered portion may become perfectly red, whilst the covered part exhibits only a pale or yellowish hue; or grapes, which would have acquired a violet colour under a full exposure to light, take on a greyish hue if enclosed in black paper. Those leaves, too, which may only partially cover growing fruit, and thereby intercept the sun's rays, delineate, as it were, on the fruit beneath, the limits they set to its action.—(*Mém. Phys. Chimiques*, tom. iii. p. 146.) In this manner apples or other fruits may be marked with the impressions of leaves artificially glued on them; and fruits so marked, it is said, are often exposed for sale in the bazaars of Persia. In North America the operation of light,

in colouring the leaves of plants, is sometimes exhibited on a great scale, and in a very striking manner. Over the vast forests of that country clouds sometimes spread and continue for many days, so as almost entirely to intercept the light of the sun. In one instance, just about the period of vernalion, the sun had not shone for twenty days, during which time the leaves of the trees had reached nearly their full size, but were of a pale or whitish colour. One forenoon the sun broke forth in full brightness; and the colour of the leaves changed so fast, that, by the middle of the afternoon, the whole forest, for many miles in length, exhibited its usual summer dress. Of this local action of light the gardener avails himself on many occasions; and by various modes of excluding this agent from particular parts of plants, so as to effect their etiolation, he is enabled so far to modify or change, not only their colour, but their more active properties, as, in some instances, to improve their natural qualities as articles of food, and, in others, to deprive them of those which might render them unsavoury or unwholesome.

The progress of coloration in an etiolated leaf, when exposed to sunshine, was observed by Senebier. The most tender parts first pass from white to yellow; the yellow then becomes deeper; next, some green spots appear on different parts, which multiply, extend, and meet, till the whole exhibits a green colour. This progressive coloration is effected exteriorly by the action of light, and is independent of the internal vegetation of the organ.—(*Mém. Phys. Chim.*, tom. ii. p. 88.) The time required for producing the effect will vary with the degree of light, and the age, texture, and peculiarities of the plant. The leaves of French beans, which sprang white out of the earth, were observed by Senebier to become green in an hour, under exposure to an ardent sun; and, when etiolated leaves were immersed in water, they became green, under exposure to sunshine in the same way as in the free atmosphere.—(*Ibid.*, p. 78—91.)

The matter thus acted on by light is contained in the cells of the parenchyma: it is green in the leaves, but of different colours in other organs of the plant: it is in its nature resinous and soluble in alcohol. By De Candolle it has been named chromule, from the Greek word signifying colour. It is the cause of colour in all vegetable surfaces, is common to other parts as well as to the leaves, and exhibits different colours in the leaves at different periods of the

year.—(*Physiologie Végétale*, tom. i. p. 321.) In addition to this chromule, there is another matter in the leaves and flowers, which, when extracted by water, exhibits a red colour on the addition of acids, and a yellow or green one on the addition of alkalies. This matter, or “colourable principle,” has been named chromogen by Dr. Hope, the distinguished professor of chemistry in this university, in a memoir on the “Coloured and Colourable Matters in the Leaves and Flowers of Plants,” read to the Royal Society of Edinburgh in 1837. From numerous experiments, made on various leaves and flowers, Dr. Hope was led to the conclusion that chromogen, or the “colourable principle,” is not an individual substance, as hitherto supposed, but that there are two distinct principles—one, which forms the red compound with acids, which he names erythrogen; and another, which affords a yellow compound with alkalies, which he calls xanthogen. These principles exist sometimes separately and sometimes together in different plants, or in different parts of the same plant. All green leaves, all white and all yellow flowers, and white fruits, contain xanthogen alone; whilst in red and blue flowers, and in the leaves of a few plants which exhibit the former of these tints, these two principles occur together. In ten flowers possessing an orange chromule, and in the corolla of twenty purple flowers, both colourable principles were also found. Other parts of flowers, as the calyx, bractææ, &c., comported themselves as the corresponding coloured chromules of the flowers do. Litmus presented the solitary example of a substance abounding largely in erythrogen, but containing no xanthogen. Light, adds Dr. Hope, was indispensable for the production of the green chromule of leaves, but not for the formation of some of the finest tints of flowers and fruits, if essential for any: differences connected, probably, with the fact, that the formation of the green colour in leaves is always accompanied, or rather preceded, by the evolution of oxygen gas; whilst, under every degree of light, flowers always deteriorate the air.

As the solar light consists of rays possessing very different powers, M. Senebier endeavoured to discover to which species of rays the coloration of the leaves of plants was to be specially ascribed. Scheele had remarked that the violet rays of the prismatic spectrum acted soonest in blackening muriate of silver, a fact confirmed by the experiments of Senebier, who extended the same views to the action of

light in the coloration of plants. He caused young colourless plants to grow in different glass vessels, so constructed that the light which fell upon them should first pass through fluids of different colours, red, yellow, and violet. At the end of four or five weeks the leaves which had been exposed to red light had a tinge of green; those in the yellow light were at first green, but afterwards became yellow; and those in violet light were quite green, and the depth of colour increased with their age. (*Mém. Phys. Chim.*, tom. ii. p. 55, *et seq.*) The subsequent experiments of Ritter and Wollaston have shown that these effects were produced, not by the coloured rays, but by certain invisible rays associated with them, and which exist in greatest force at and beyond the boundary of the violet extremity of the spectrum. To these rays have been assigned the names of the chemical or deoxidating rays; of their deoxidating power we shall have abundant evidence in the next section.

(*To be continued.*)

ARTICLE V.

ON RAISING ROSES FROM SEED.

BY ROSA.

IN recent Numbers of the FLORICULTURAL CABINET I have with pleasure noticed the observations on hybridizing various plants, with a view to the increased improvements of the various genera of ornamental plants. I have for several years directed my attention to raising Roses from seed, and my efforts have been successful in raising some of the finest new Roses which now grace our best collections.

During the months of September and October I repaired to several first-rate nursery collections of Roses, in order to see which kinds, in each class of Roses, bore fruit the most freely, and ripened the earliest; and I then procured several of each class, which I planted at the proper season. These bloomed the following summer, and having a very extensive collection of nearly all the finest double Roses, I carefully selected farina from the best of the double flowers, and impregnated the fruit-bearing kinds therewith. The fruit-bearing flowers are generally not quite double, and I found it to be of use to

thin out the larger trusses of flowers, so as to leave about half a dozen in a head of the plumpest buds.

In the process of impregnation, just as the flowers to be impregnated are expanding, I cut away the anthers therein by means of a small pointed penknife or scissors, this prevents natural seedlings being produced from the kind. Where I had a specific design in the impregnation of any two kinds, after the operation had been effected I tied a piece of fine gauze over the head of bloom to prevent access by bees, &c.

In Autumn, as soon as the side was ripe, I had it gathered and placed in gauze bags, and so kept in the seed-vessel till required for sowing. Early in Spring I sow the seed thinly in boxes, and place them in a gentle heat in a common frame, keeping the soil moist, not wet, till that portion which then pushes appears to have done entire for that season. When the plants can be safely transplanted I have them carefully taken up, and planted in a rich soil and warm situation in the open garden, where they remain to bloom. The general quantity of the seed does not come up the first season, but remains to the second. I therefore have the boxes kept just moist, till the end of the summer, and then remove them into a dry place during winter. Early in spring place them in a gentle heat, and all the good seeds soon push forth plants, which are treated as before named. Seed may be quite successfully treated by sowing in the open border, having it in a warm situation, and keeping it moist by covering the bed over with moss, &c. Two years are required here as in the former named instance, to get up the whole. During winter I usually spread dry leaves betwixt the plants that come up, and remain in the seed bed, so they be secured from injury by frost, being yet tender; this protection is removed at the spring. Moss or tanners' bark may be substituted for dry leaves where the latter are objected to.

I have paid particular attention to crossing the most distant classes, as well as to obtain kinds which will bloom the longest period, and to get fine-coloured, fragrant, and very double Roses. The following kinds I have found to seed freely.

HYBRID CHINAS.—Athelin, Celine, Princess Augusta, Duke of Devonshire, Globe White Hip, Aurora, Ne plus Ultra, Henri Barbet, General Allard, and Chatelain. These, and others of the class, I im-

pregnated with the best Bourbon or Perpetual kinds. in order to obtain some fine hardy autumnal Roses.

AYRSHIRES AND SEMPERVIRENS.—Ruga, Leopoldine d'Orleans and Splendens were impregnated with the darkest flowers of others.

BRIER ROSES.—Harrisonii, and Double Yellow:

MOSS.—Eclatante, Single Crimson, and Du Luxembourg.

BOURBONS.—Dubourg, Gloire de Rosamenes, Bouquet de Flore, Augustine Lelieur, De Lisle, and Emile Courtier.

CHINAS.—Henri Cinque, Alba, Camellia Blanc, Therese Stravius, Belle Elvire, Madame Bureau.

TEA-SCENTED.—Jaune, Lyonnais, Caroline, Bardon, Goubault, Belle Allemande, Lady Granville.

GALLICAS.—Of this class numerous.

ARTICLE VI.

ON DESTROYING THE RED SPIDER.

BY A FOREMAN OF A LONDON NURSERY.

I HAVE been in the situation I now hold for the last ten years, and previously in the garden of a nobleman for seven; in both places I have had the care of fruit and plant houses, and, as a matter of course, I have had to contend with the Red Spider. Twelve years back I had a number of Vines, hothouse as well as greenhouse plants, attacked most ravenously by these detestable little scoundrels; I was advised to procure some common sulphur, using a quarter of a pound to a house of about eight or ten yards long. The mode of application was as follows: the sulphur being put into a large bowl, a large painter's dusting-brush was dipped in water, and after rolling it round in the sulphur, I laid it over, like painting, the hot water pipes and fire-flues, putting the least proportion where the pipes or flues were hottest. I chose a dull day for the purpose, and kept the house close all day, unless the sun broke out, when a small ventilation was given in order to allow the strong fumes to escape. This plan succeeded to expectation, and a repetition of this practice three times each year has kept my plants entirely free.

It is a custom with me to have each plant-house white-washed early every spring; and with three houses I mixed the sulphur,

using the same proportion, with the quicklime-wash, and thus applying them together. This has succeeded also.

By the above attentions such plants as *Thunbergias*, &c., which are very liable to be attacked by the insect, are kept perfectly free and flourish vigorously. *Fuchsias* I find cannot bear the sulphur fumes, I therefore remove them when applying the sulphur, and keep the house closed. They might probably bear it if of a much lower degree of intensity.

PART II.

LIST OF NEW AND RARE PLANTS.

AERIDES VIRENS. GREEN-LEAVED AIR PLANT. (Bot. Reg. 41.) Orchidaceæ. *Gynandria Monandria*. Sent from Java to Messrs. Loddiges's, with whom it has bloomed. It is a beautiful addition to this interesting family. Sepals and petals French white, each having a deep purple blotch at the end. Lip same colour, speckled with crimson, and having a green curved tip. The flowers are produced on a pendulous raceme, about six inches long, each blossom being an inch and a half across. They are deliciously fragrant.

ASCLEPIAS VESTITA. HAIRY-STEMMED. (Bot. Mag. 4106.) Asclepidaceæ. *Pentandria Digynia*. From North America, seeds having been received from thence by Messrs. Veitchs, of Exeter. It is a herbaceous perennial plant. The flowers are numerous produced, in dense umbels of from twenty to thirty blossoms in each. Each blossom is about half an inch across, of a yellowish green, the underside of the calyx of a reddish purple colour.

BERBERIS UMBELLATA. UMBELLATE. (Bot. Reg. 44.) Berberaceæ. *Hexandria Monogynia*. (Synonym *Berberis floribunda*.) A hardy sub-evergreen bush, growing about three feet high, which has been raised in the garden of the London Horticultural Society. The flowers are produced abundantly in June, in racemes each about two inches long, of a bright yellow colour, each segment of the calyx having a red tip. The plant is easily distinguished by its narrow spineless leaves.

DRYANDRA FORMOSA. THE SPLENDID. (Bot. Mag. 4102.) Proteaceæ. *Tetrandria Monogynia*. From South-west Australia. It is grown in the Royal Gardens, Kew. The flowers are of a rich yellow, tinged with a reddish brown. It is a noble and (when in bloom) a highly interesting proteaceous plant. The one in the Kew collection is now about five yards high, making a fine conservatory plant.

EPIDENDRUM VITELLINUM. YOLK-OF-EGG EPIDENDRUM. (Bot. Mag. 4107.) From Oaxaca, in Mexico, which has bloomed in the Kew collection. The flower-scape rises about a foot high, bearing a raceme of rich flowers. Sepals and petals of a fine orange colour; labellum of a bright yellow. Each blossom is near two inches across.

HABROTHAMNUS ELEGANS. ELEGANT. (Bot. Reg. 43.) Cestraceæ. *Pentandria Monogynia*. A native of Mexico, specimens of which have been sent to this country by Mr. Van Houtte, nurseryman, of Ghent. It is a smooth, soft-wooded, shrubby plant, requiring a similar treatment to *Pelargoniums*. The plant is branching. The flowers are produced in terminal cymes of nearly twenty blossoms in each. The tube of the corolla is ventricose, three quarters of

an inch long. The limb (mouth of the flower) is five-parted, about three eighths across. It is said that the flower is of a bright carmine. It is a pretty and interesting greenhouse plant, well deserving cultivation.

MICROSTYLIS HISTIONANTHA. SAIL-FLOWERED. (Bot. Mag. 4103.) Orchidaceæ. Gynandria Monandria. A very remarkable terrestrial orchideous plant, a native of Columbia. It has bloomed in the collections at Kew and the Royal Botanic Garden, Regent's Park, London. The flowers are produced in a compact concave umbel, of a brownish green colour.

ODONTOGLOSSUM PULCHELLUM. THE ELEGANT. (Bot. Mag. 4104.) Orchidæ. Gynandria Monandria. A native of Guatemala. It has bloomed with Mr. Bateman, as well as at Kew. The flower scape is a foot long; the flowers are produced in a rather loose spike or raceme, of ten or twelve in each. The blossoms are of a pure white, excepting there being a red spot on a yellow ground at the base of the labellum. The flowers are very delicately beautiful.

SIPHOCAMPYLUS LANTANIFOLIUS. LANTANA-LEAVED. (Bot. Mag. 4105.) Lobeliaceæ. Pentandria Monogynia. Collected in Caraccas. It is an erect shrubby plant, which requires a warm greenhouse or coolish stove. The flowers are produced numerously, in a corymbose raceme. Each blossom is about two inches long. Inside the tube flesh-colour, outside of a rich rose shaded with red. It is a pretty-looking plant, blooming in the early spring months, and is easily propagated by cuttings.

STENOMESSON HARTIVEGGII. MR. HARTWEG'S. (Bot. Reg. 42.) Amaryllidaceæ. Hexandria Monogynia. Found by Mr. Hartweg, at Hacienda del Ixo, in the province of Quito, at the height of 11,800 feet above the sea. The flower-stem rises a foot high; each produces two pendant blossoms, of a bright orange colour. Each blossom is about an inch long, and three quarters across the mouth. It has bloomed in the garden of the London Horticultural Society.

MARTYNIA LUTEA. YELLOW-FLOWERED. (Pax. Mag. Bot.) Pedaliaceæ. Didynamia Angiospermia. From Brazil to the Dean of Manchester, in whose greenhouse collection at Spofforth it has bloomed. It is an annual plant, branching, growing half a yard high. Each branch is terminated by a large clustered head of flowers, nearly the size and form of the common wild Foxglove. They are of a rich orange-yellow colour, spotted with red. We saw it in bloom at Mr. Lowe's, of Clapton Nursery.

JACARANDA MIMOSIFOLIA. MIMOSA-LEAVED. (Pax. Mag. Bot.) Bignoniaceæ. Didynamia Angiospermia. A native of Brazil. It is a beautiful trumpet-flowered plant. The blossoms are produced in large terminal panicles, drooping. Each blossom is nearly two inches long, and three quarters across the mouth, of a beautiful blue colour. Plants can be made to bloom when not more than six inches, a foot, or half a yard high, as at pleasure, by striking the terminal portions of the lateral branches. It well deserves a place in every plant stove, its large paniced heads of blue flowers being very beautiful.

DENDROBIUM DALHOUSIEANUM. LADY DALHOUSIE'S. (Pax. Mag. Bot.) Orchidæ. Gynandria Monandria. Sent from Calcutta Botanic Garden to Chatsworth, where it has bloomed, as also with Messrs. Loddiges. The flower-stem rises a yard high. The flowers are produced in a drooping raceme of from eight to twelve in each. A separate blossom is near four inches across. Sepals and petals, of a pale rosy-pink near to the margin, and the rest of a delicate yellowish white. Labellum boat-shaped, the tip part white, yellowish towards the base; and on each side the base there is a large dark spot peculiarly striking. It is a very noble flowering species, which blooms in the Calcutta garden in the dry season, which circumstance points out its treatment in this country.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON SEEDLING CARNATIONS.—A constant reader will be much obliged by a little information on the subject of seedling Carnations, having raised some of these (from, she fears, bad seed), and they having all proved single. She will be glad to be informed whether, if she kept them until the following summer, they would be likely to become more double. An answer in the next number of the CABINET will much oblige

July 8th.

EGERIA.

[The single ones will not become double. If there be any that are semi-double, such may become double when treated as Carnations in general are.—CONDUCTOR.]

ON THE WIRE-WORM.—Can you, or any of your correspondents, inform me the best method of destroying the wire-worms, as, with me, they eat everything that they meet with. I had been told that hops strewed over the ground was a very effective plan; but, on trial, instead of destroying them, I found that they fattened the more from it. I must confess, however, that it brought them more readily to the surface of the ground, so that the plan adopted may be more properly termed a trap than a poison. I am informed there is a solution, a chemical mixture, that when applied to the ground brings them to the surface, like the earth-worm, with the solution of corrosive sublimate. This year I have lost nearly the entire stock of two beds of Pinks, all my Picotees and Carnations, and a great number of my seedling and named kinds of Dahlias. An early information as to a successful remedy will oblige

Leipsic-road, Camberwell.

C. C. CLARK.

P.S. I have a great quantity of Ranunculus seed, which is three years old. Is it better, or otherwise, being so long kept?

[It is most probable that very few, if any, will now vegetate, and such as do will have derived no benefit by the long keeping.—CONDUCTOR.]

ACHIMENESSES.—I have procured nearly all the new Achimeneses. How am I to succeed with them the coming autumn and winter? A. B.

[When the plant ceases to bloom withhold water, place them where they will be dry and free from frost; keep them so through winter. Early in February give them a good watering, place them where they can have heat, say in a cucumber-bed frame, &c. The plants will soon push; then separate them from the parent stock, potting them singly into small pots, and repot as necessary. See articles on culture in former numbers.—CONDUCTOR.]

REMARKS.

LONDON HORTICULTURAL SOCIETY, REGENT STREET.

August 6th.—The exhibition included several objects of great interest. Two magnificent specimens of *Fuchsia exoniensis* were contributed by Mr. Ayres, gardener to J. Cook, Esq. This *Fuchsia* is well known to produce flowers of the finest colour and best form; but when it was shown at a former exhibition, some doubts were entertained with respect to its habit of growth. These plants were upwards of five feet high, and their gracefully drooping branches, covering the pot, were loaded with blossoms, and were clothed from top to bottom with abundance of fine healthy foliage. From the same gardens were *Pentas carnea*

and *Achimenes multiflora* in very fine condition, and also another sort named *Beatonii*, bearing much resemblance to the old *A. coccinea*; together with a most beautiful *Clerodendron paniculatum*, in a state of great perfection, producing a spike of flowers fully 18 inches long. A Knightian Medal was given for this, and a Banksian was awarded to the three first-mentioned plants.—Mr. Mountjoy, of Ealing, was awarded a Knightian Medal for a most beautiful specimen of the red-flowering *Lilium speciosum*, having four branches, bearing no less than 70 of its showy blossoms. From the same collection was also *Pentas carnea*, a *Gladiolus* named *Glory of Ghent*, with large vermilion and yellow flowers, and apparently raised between *G. cardinalis* crossed with *psittacinus*, and specimens of *Phlox Van Houttii*, which, on account of its beautifully-striped flowers, is so great an acquisition to hardy herbaceous plants. Mr. Mountjoy also sent *Gloxinia cerina*, flowers of a seedling *Loasa*, and a *Plectranthus* with pale-blue flowers.—Mr. Edmonds, gardener to the Duke of Devonshire, received a Knightian Medal for an excellent *Cattleya crispa*, in good health, and having five fine spikes loaded with showy blossoms.—From Messrs. Henderson, of Pine-apple-place, were *Cleome pentaphylla*, *Linaria triornithophora*, called *fissa*, and a fine mass of *Achimenes hirsuta*, in profuse bloom, growing in a shallow pan. Messrs. Henderson stated that they grow all the varieties of *Achimenes* in shallow pans; and they imagine that the plants flower much better under such treatment than when they are planted in deep pots. It is probable that this, as well as some of the other sorts which are apt to become too luxuriant, and consequently flower but sparingly, would do better if they were grown on blocks, and were treated similarly to Orchidaceous epiphytes. This has been partly proved in the garden of the Horticultural Society, where a bulb of *A. pedunculata* accidentally got into the moss on a block along with one of the Orchidaceous plants, where it is now growing, and, although one of the worst of them to flower, it is quite a mass of bloom. Messrs. Henderson also sent a new Heath, named *Hendersonii*, with bright pink flowers; and a fine specimen of *Babingtonia camphorosmæ*, a fine autumn-flowering plant, with Heath-like foliage, and producing fine spikes of delicate pink blossoms. A Banksian Medal was awarded for the Heath, *Babingtonia camphorosmæ*, and *Achimenes hirsuta*.—From Mr. Jackson, of Kingston, was a *Lobelia*-looking plant, with dark purple flowers, belonging to the genus *Tupa*, but named a species of *Cristaria*. It was from South America, and is new to gardens.—Mr. Robertson, gardener to Mrs. Lawrence, sent a plant of the very useful *Niphaea oblonga*, *Oncidium Papilio superbum*, *volubile*, and *Stanhopea graveolens*, called a variety of *Oculata*; the pale variety of *Cattleya Mossiæ*, with large showy lilac blossoms; the insignificant-looking, but rare, *Epidendrum glaucum*, and another Orchidaceous plant, having small green flowers, with the lip striped with brown; several fine specimens of Heaths, and a magnificent *Cuphea Melvilla*, covered with blossoms, for which a Knightian Medal was awarded.—From the garden of G. F. Cox, Esq., of Stockwell, were some good Orchidaceous plants, including *Cymbidium lancifolium*, *Cycnoches ventricosum*, *Catasetum Russellianum*, with watery-looking pale-green flowers; the rare *Sophronitis cernua*, *Eulophia cochlearis*, small, but in good health; *Oncidium Papilio*, and the red and white varieties of *Lilium speciosum*, together with the beautiful *Dendrobium chrysanthum*, and the true *Stanhopea oculata*, for which, as well as for the *Dendrobium*, a Banksian Medal was awarded.—Good specimens of *Fuchsia exoniensis* were contributed by Mr. Kendall, of Stoke Newington, and Mr. Chandler, of Vauxhall, confirming the fact so abundantly proved by Mr. Ayres's plants, that this *Fuchsia* has an excellent habit. Mr. Kendall also sent a seedling *Pelargonium*, named *Warrior*.—From Messrs. Lane and Son was a seedling *Fuchsia*, named *Beauty Supreme*; and another, called *Pickwick*, was from Mr. Cormack, of Deptford.—A specimen of the pale variety of *Catasetum maculatum* was sent from the garden of J. H. Schroder, Esq., of Brixton.—Messrs. Veitch and Son, of Exeter, exhibited what they considered to be a new species of *Cyrtopodium*, sent from Peru by their collector, Mr. Lobb, but which appeared to be only a pale variety of *C. punctatum*; and likewise *Torenia asiatica*, not of sufficient beauty to render it of much moment in a horticultural point of view.—Of Fruit there were some good specimens.—From the garden of the Society

was the well-known *Mormodes aromaticum*, *Catasetum Russellianum*, and a new variety of *Dendrobium secundum*, received from Mr. Fortune, who found it growing about Anger Point. It produces beautiful racemes of dark purple blossoms, which are quite different from the pale flowers of the old species. From the same collection was also the new *Achimenes picta*, which, independently of the beauty of its flowers, has a pretty grayish-striped foliage that the others do not possess. Along with this was *A. longiflora* and *grandiflora*, the smaller variety of *Erica cubica*, the well-known *Stephanotus floribundus*, *Statice Dickensoni*, *Myoporum parvifolium*, *Chironia frutescens*, and a collection of cut flowers of *Verbenas*.

CARNATION AND PICOTEE SHOW AT THE COPPICE, NEAR NOTTINGHAM.—Mr. William Hepton, of York, won both cups, one for Picotees and one for Carnations. Mr. Lodge, of Manchester, took the second prize for Carnations, and Mr. Joseph Gibbens, of Bramcote, near Nottingham, the third. Mr. Thomas Gibbens, of Bramcote, near Nottingham, was awarded the second pan of Picotees; and Mr. Pearson, of Nottingham, the third. From what we could see, the Nottingham flowers were undersized, accounted for by the show being fixed too late for them; in fact we were informed that they were all second and third blooms. Mr. Hepton's flowers were certainly well grown; we particularly admired amongst his Picotees Ely's Field Marshal, which, though thin for the south, is a noble flower; Ely's Grace Darling, P.P., and Green's Queen Victoria. Rose Picotee, with Wood's Queen Victoria, R.P., were also in first-rate style. In Mr. Thomas Gibbens's pan, Nulli Secundus, P.P., and John's Prince Albert, P.P., were remarkably fine; and Wilson's Fanny Irby, R. P., and Robinson's Hero of Nottingham, were all that could be wished; whilst in Mr. Pearson's pan, Barnard's Mrs. Barnard was quite a gem. Of the Carnations, the lion of the day (or lioness if you like) was Ely's Lovely Ann; this was, indeed, the *ne plus ultra* of rose flakes, and excited universal admiration. Hepworth's True Briton was finely marked, though the flower was rather damaged; whilst those safe flowers, Ely's Mango, P.F.; Ely's Lady Ely, R. F.; Wilson's William the Fourth, F.; Greasley's Brougham, C.B.; and Ely's Jolly Dragoon, S.B., were (to use an old Derby-grower's expression) "toppers." For our own part we had a decided *penchant* for some of Mr. Lodge's flowers. His Royal Briton, S.B., was a first rate flower, and must be seen to be appreciated; Ely's Caxton, C.B., was rather thin, but beautifully marked; whilst Euclid and Beauty of Woodhouse were in extra condition, and Rob Roy and Beauty of Cradley, S.F., were as fine as could well be imagined. Amongst the losing pans were noticed the following in splendid condition.—Ely's Lord Milton, C.B.; Hufton's Patriarch, S.B.; Ely's Lady Gardiner, R.F.; Ely's Lord Morpeth, S.F.; Simpson's Marquis of Granby, S.F.; Pollard's First-Rate, P.F.; Martin's Splendid, S.B.; Brabbin's Squire Meynell, P.F.; Hufton's Rosea, R.F. We subjoin a list of the winning flowers:—*Carnations*.—1. Mr. W. Hepton, with Hepworth's True Briton, Ely's Jolly Dragoon, Hufton's Wellington, Greaseley's Lord Brougham, Wilson's William IV., Leighton's Prince George, Ely's Lady Ely, Ely's Lovely Ann, Ely's Mango, Leighton's Bellerophon. 2. Mr. Lodge, with Lodge's Royal Briton, Ely's Jolly Dragoon, Soorn's Bloomsbury, Ely's William Caxton, Mansley's Euclid, — Beauty of Woodhouse, Orson's Rob Roy, Wallis's Beauty of Cradley, Ely's Lovely Ann, Ely's Lady Ely. 3. Mr. J. Gibbens, with Hufton's Patriarch, Hales's Prince Albert, Ely's Lord Milton, Greaseley's Lord Brougham, Ely's Volunteer, Orson's Rob Roy, Pullen's Queen of England, Greaseley's Village Maid, Millwood's Premier, Squire's Meynell.—*Picotees*.—1. Mr. W. Hepton, with Gidden's *Vespasian*, Ely's Grace Darling, Ely's Field Marshal, Ely's Dr. Horner, Green's Queen Victoria, Keesley's *Rosea*, Wood's Queen Victoria, Sharp's *Hector*, Wilson's *John Bull*, Ely's *Criterion*.—2. Mr. J. Gibbens, with Mark Anthony, Gidden's *Teazer*, Nulli Secundus, John's Prince Albert, Wilson's *Fanny Irby*, Green's *Victoria*, Nottingham *Hero*, *Venus*, Miss Hunter, Boothman's *Victoria*. 3. Mr. Pearson, with Queen of England, Mrs. Barnard, *Fanny Irby*, Marchioness of Exeter, Pickering's *Confederate*, Sharp's *Wellington*, Derby *Willow*, Nulli Secundus, *Field Marshal*, and *Hero* of Nottingham.

REMARKS ON THE LEAVES OF PELARGONIUMS BEING SPOTTED.—In several numbers of the last and present volume of the FLORICULTURAL CABINET I have noticed attention has been called to the subject of the spotting of the leaves of Pelargoniums. I think this arises from the effects of green-fly. I, however, do not mean to assert that green-fly alone produces the spot; but this, in combination with other circumstances, causes it. One of these is the want of paying attention to regularity of watering: when water is injudiciously or sparingly supplied, the result is a sickly and half-dead plant, full of spot and green-fly. The Pelargonium requires to be regularly supplied with water when in a growing state; if the leaves are allowed to droop time after time, the cause will soon be shown by its effects. Immediately afterwards there appears upon the leaves a sort of sticky substance not unlike sugar, when dissolved and rubbed upon anything, which is injurious to the plant. In order to grow Pelargoniums to perfection, they should have a house wholly for themselves, which should be shaded with canvas, so as to exclude the mid-day sun. Air should be freely admitted, and the plants syringed every other night, when not in flower, with clean water; they should never be too much crowded together, but should be kept a good piece apart, so that air may circulate freely among them. By paying proper attention to these things there is no fear of the spot ever making its appearance. Particular attention should, however, be paid to having a free and open drainage, so that water may not stagnate about the roots. C.

ON SALVIA MEXICANA.—For several years I grew this fine blue Salvia in a rich soil in the open ground against a south wall; it grew so vigorously, that I had but a very large foliage, and a few small spikes of flowers. By accident last year I kept an old plant in a pot rather confined, and to my surprise it bloomed most freely, having numerous spikes of large blossoms. This season I have grown several young plants, in 24-sized pots now, and they, too, are in beautiful bloom. CLERICUS.

TO DESTROY MOSS ON GRAVEL-WALKS.—In winter, when the frost operates upon the walk, by expansion the moss becomes loosened; at that time a rough besom being applied liberally to the surface will remove all such, and clear the walk in a considerable degree. A PRACTICAL MAN.

ON STRIKING CUTTINGS IN CHARCOAL.—All soft-wooded shrubby greenhouse plants, as Salvias, Pelargoniums, Petunias, Heliotropes, Fuchsias, Lantanas, Abutilous, Anagallises, &c., strike most admirably in a mixture of equal parts of loam and sifted (not mere dust) charcoal. The cuttings strike root to some extent in a week from the time put in, and when struck grow most vigorously, I place the pots of cuttings in a gentle heat till struck.

NOTES ON NEW FLOWERS.

THE raising of Seedling Flowers having much increased within the past two seasons, we have received a proportionate increase of floral specimens for our opinion of their merits. These have hitherto been inserted in Notes to Correspondents on the cover of our Magazine; but as the wrapper is thrown away when the volume is bound, the records of what has been submitted to us is no longer available for reference; and as it is now necessary, as a guide for the future, we therefore intend to devote a space in each future Number to a particular and faithful description of the specimens forwarded for our opinion.

PELARGONIUMS.

ROGERS AND SON, W., NURSERYMEN, UTTOXETER.

No number attached; lively flesh-pink petals, having a small rich crimson-eyed eye, smooth in texture, being without crumple of any kind; a good circular-shaped flower.

FUCHSIAS.

BARKWAY, JAMES, EAST DEREHAM.

No. 6 is a good-shaped flower, with a purplish corolla, and very bright carmine tube and sepals.

No. 4 is large, of the colour of *Racemiflora*, than which, however, it is much better, but we do not like such loose-shaped flowers.

Nos. 1 and 3 are very pretty, both having delicate flesh-white tube and sepals, with lively rosy-ruby corollas. In shape they are almost too similar, although apparently distinct enough in foliage and habit; we recommend them both, as also No 2, which has deeper flesh-coloured tube and sepals, with a light purple corolla.

LAWTON AND SONS, ETRURIA GARDENS.

Of your seedlings named *Grandiflora elegans*, *Defiance*, and *Stylosa robusta*, the last is the best, although inferior to several others of a similar habit, already out.

ROGERS AND SONS, UTTOXETER.

$\frac{1}{4}$, veined, fleshy, straw-coloured tube and sepals, the latter tipped with bright grassy-green; the corolla bright rosy-vermilion; a well-shaped, distinct, and excellent variety. $\frac{2}{4}$, bright crimson tube and sepals, corolla bright rosy-purple; a good flower, but similar varieties have now become so numerous that it requires some particular quality in growth and habit to recommend such. $\frac{3}{4}$, this is rather lighter in colour than the last, and the sepals are tipped with green, in shape it is more distinct and of larger size, but not so compact as we like.

HEPATICA.

WILLISON, WILLIAM.

Your seedling named *Autumnalis grandiflora*, is much larger, and a good improvement upon the old purple; blooming, too, at such a season renders it very acceptable.

HEARTSEASE.

WILLISON, WILLIAM.

A very pretty sulphur, regularly laced with light blue; not good enough for a show flower, but may lead to something better.

CALCEOLARIAS.

STAFFORD, S., HYDE.

Your seedlings are most of them very pretty, the spots being varied and distinct, and their form well shaped. These are the best; Nos. 132, 46, 57, 145, 149, 7, and 157.

FLORICULTURAL CALENDAR FOR SEPTEMBER.

Annual flower seeds, as *Clarkia*, *Collinsia*, *Schizanthuses*, *Ten-week Stocks*, &c., now sown in pots, and kept in a cool frame or greenhouse during winter, will be suitable for planting out in open borders next April. Such plants bloom early and fine, and their flowering season is generally closing when spring-sown plants are coming into bloom.

Carnation layers should immediately be potted off.

China Rose cuttings now strike very freely; buds may still be put in successfully.

Calceolaria seed should be sown soon, or be reserved till February.

Cuttings of stove plants, as *Vincas Roellias*, *Justicias*, *Clerodendrons*, should now be struck; they will make pretty plants for next season; as also sundry greenhouse plants.

DAHLIAS.—Where the laterals or buds are very numerous, they should be thinned out so as to have vigorous blooms. Towards the end of the month collect seed of the early-blown flowers.

Mignonette may now be sown in pots to bloom in winter.

Pelargoniums, cuttings of, may now be put off; plants of which will bloom in May. Seeds should be sown as early now as possible.

Pinks, pipings of, if struck, may be taken off and planted in the situations intended for blooming in next season.

Plants of Herbaceous Calceolarias should now be divided, taking off offsets and planting them in small pots.

Verbena Melindris (*chamædrifolia*). Runners of this plant should now be taken off, planting them in small pots half filled with potsherds, and the rest with good loamy soil, then placing them in a shady situation. It should be attended to as early in the month as convenient. When taken into a cool frame or greenhouse for winter protection, much of the success depends on being kept near the glass; or sink a box or two half filled with potsherds, and the other good loamy soil, round the plant, so that the runners, being pegged down to the soil, will soon take root at the joints. When a sufficient number are rooted, separate the stems from the parent plant, and those in the boxes will be well established, and, being removed before frost, are easily preserved in winter, as done with those in pots.

Plants of Chinese Chrysanthemums should be re-potted if necessary; for if done later the blossoms will be small. Use the richest soil. Pinch off the heads to cause the production of laterals, so as to have a head of flowers.

When Petunias, Heliotropium, Salvias, Pelargoniums, (Geraniums, Mesembryanthemums, Bouvardias,) &c., have been grown in open borders, and it is desirable to have bushy plants for the same purpose the next year, it is now the proper time to take off slips, and insert a number in a pot; afterwards place them in a hot-bed frame, or other situation having the command of heat. When struck root, they may be placed in a greenhouse or cool frame to preserve them from frost during winter. When divided and planted out in the ensuing May, in open borders of rich soil, the plants will be stocky, and bloom profusely.

Tigridia pavonia roots may generally be taken up about the end of the month. Lisianthus Russellianus seed, sown immediately, will produce plants for next year's blooming. It is one of the finest plants grown. It is best treated as a stove biennial.

Plants of Pentstemons should be divided by taking off offsets, or increased by striking slips. They should be struck in heat.

The tops and slips of Pansies should now be cut off, and be inserted under a hand-glass, or where they can be shaded a little. They will root very freely and be good plants for next season.

LOBELIAS.—Off-sets should be potted off, so as to have them well rooted before winter.

Greenhouse plants will generally require to be taken in by the end of the month; if allowed to remain out much longer, the foliage will often turn brown from the effects of cold air. The earlier succulents are the better.

Seeds of many kinds of flowers will be ripe for gathering this month.

When Lilies, Crown Imperials, Narcissuses, &c., require dividing, take them up now, and replant them immediately.

Ranunculus beds should now be prepared as follows:—The depth of soil to be two feet and a half, of a rich, clayey, friable loam, retentive of moisture; about six or eight inches from the surface to be a rich light loam, of a sandy nature. Remove the whole of the soil with the remains of the dung given last year, and turn up the subsoil a whole spade in depth, breaking it well. If the beds are allowed to remain in this state for a day or two, to sweeten the subsoil, it will be an advantage. Then place upon the sub-soil a layer of cow-dung, at least one year old, four inches thick; then scatter over it the fine powder of new-slaked lime, to correct any acidity, and destroy the worms. Then fill up with new, light soil, taken from the surface of the old tulip-bed or potato-ground, which has been frequently turned to sweeten it.





1. *Ceanothus thyrsiflorus*. 2. *Alona carolinensis*.

THE
FLORICULTURAL CABINET,

OCTOBER 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

CEANOTHUS THYRSIFLORUS. THYRSE-BEARING.

R. B. HINDS, Esq., as well as the late Mr. Douglas, discovered this plant; the former at San Francisco and Monteroy, the latter in California. The native specimens were objects of considerable beauty. We saw a plant of it growing against a wall in the garden of the London Horticultural Society in *very profuse bloom*, and affording a delightful appearance. It is a hardy evergreen shrub, the foliage being of a shining green. The flowers are produced in large branching panicles. It makes a charming plant to train against a wall or trellis; and there being so few blue flowers of this class of ornamental plants, renders this species still more valuable. It may be obtained at a reasonable price at most of the public nurseries, as the Horticultural Society have freely distributed plants.

ALONA CÆLISTUS. THE SKY-BLUE.

This new and beautiful flowering plant belongs to the Nolanas, and is included in the group of *shrubby* species. It is a native of Peru and Chile, and has been raised from seed by Mr. Best, gardener to A. Park, Esq., of Merton Grove, in Surrey, from whom we received a specimen.

The habit of the plant is somewhat of a Heath, much branching, and forms a good-sized bush. It blooms very freely, and produces a

fine effect. The former kinds we possessed in this country, viz., *Nolana prostrata*, *atriplicifolia*, &c., are annuals. This, besides being equally beautiful in flowers, is a shrubby plant. It deserves a place in every greenhouse, and no doubt will be an ornamental one for the flower-bed during summer.

There are in Chile and Peru numerous kinds of the originally-named genus *Nolana*, many of them of great beauty, but varying greatly in structure and appearance; it has, therefore, been deemed best to divide them, and classify so as to form several genera, and for the present arranged as follows:—

NOLANAS (prostrate annuals).—*N. prostrata*, *tenella*, *inflata*, *spathulata*, and *coronata*.

ALONAS (shrubby, or half shrubby).—*A. coelestis*, shrubby; *A. rostrata*, shrubby; *A. obtusa*, shrubby; *A. glandulosa*, shrubby; *A. carnososa*, shrubby; *A. tomentosa*, shrubby, having white flowers; *A. revoluta*, herbaceous, but at the lower part shrubby; *A. baccata*, an erect annual, flowers yellow; *A. longifolia*, annual, appears to be somewhat succulent.

DOLIAS (erect, shrubby, branching plants).—*D. vermiculata* and *D. Salsoloides*.

SOREMAS (flowers bell shaped, plant annual).—*S. paradoxa*, (synonym, *N. paradoxa*); *S. atriplicifolia* (synonym, *N. atriplicifolia*).

APLOCARYA (flowers bell shaped, plant shrubby).—*A. divaricata*, a stiff branching shrub, with small flowers.

What has hitherto been introduced into this country are pretty, and, when the entire of the above are obtained, they will be a valuable acquisition for the greenhouse, or open beds in summer.

ARTICLE II.

ON RAISING FUCHSIAS, AND TO FLOWER THEM THE SAME SEASON.

BY MR. SMEE, GARDENER, OF GOSFIELD HALL, IN ESSEX.

OBSERVING an article in this month's Number of your useful **CABINET** by an Amateur, requiring a few hints relative to raising and flowering Fuchsias in one season, I am induced herewith to communicate the mode of proceeding I have successfully adopted in raising and blooming seedlings of this beautiful and interesting tribe of plants.

On January 8th, after filling the pot with light garden mould, and making the surface even and smooth, I sowed the seeds, and thinly covered them with sand; after which I gave a slight sprinkling of water. I then placed the pot in 60 degrees of moist temperature. When the plants were about an inch high, I potted them off singly into forty-eight sized pots; and as the roots reached the sides of the pots the plants were repotted, entire, into twelves, in a compost of equal parts of sandy loam and leaf-mould. This being done, I had them replaced in the same temperature as before till June. In August they began to bloom, and now (September 10th) are so in profusion; the plants being about 25 inches high, with numerous branches near half a yard long.

ARTICLE III.

REMARKS ON THE LIME, OR LINDEN TREE.

BY FLORA.

—— “ And the lime at dewy eve
Diffusing odours.” COWPER.

(Continued from page 196.)

THERE is a prodigious linden now standing in the village of Preilly, in the canton of Vaud, in Switzerland, under whose shade the rural entertainments of these amiable and interesting people are held. Each village of this canton is governed by twelve men, who are chosen to maintain the observance of the laws; and it was beneath the extending branches of this celebrated tree that the municipality of Preilly formerly held their common council, seating themselves on the roots which have elevated themselves above the earth, as it were to form a natural bench for the justice of these simple people. This linden-tree is visited by all who make the tour of Switzerland, and many a traveller exclaims with Langhorne:

“ O let me still with simple nature live,
My lowly field flowers on her altar lay,
Enjoy the blessings that she meant to give,
And calmly waste my inoffensive day!”

We have already noticed that the linden was one of the papyraceous trees of the ancients. Munting affirms he saw a book made of the inner bark of this tree, which had been written about a thousand

years; and there is a similar one in the library at Vienna, which contains a work of Cicero, *De Ordinanda Republica, et de inveniendis Orationum exordiis*. It was formerly amongst the varieties of Cardinal Mazarine, and which the Count of St. Amant, then governor of Arras (1662), procured for the emperor at the price of 8000 ducats, which, if silver ducats, would amount to 1800*l.*, and if gold, 3800*l.*

Pliny tells us that, in ancient times, fillets or ribands for chaplets were also made of the inner bark of the linden, and which it was esteemed a great honour to wear. The Romans also made cords and ropes from the thready substance which is found between the wood and the inner bark of this tree. The Roman cooks sliced the inner bark of the linden to boil with meats that were over salted, as it was found to make them perfectly fresh.

Of the ancient use of the timber of this tree, we learn from Virgil, who says:—

“ Of beech the plough-tail, and the bending yoke,
Or softer linden, harden'd in the smoke.”

Geor. i.

It is from the wood of the linden tree, principally, that the incomparable carvings of Gibbons were formed, which, for lightness and elegance of design, have never been equalled in modern times, and perhaps not surpassed by the chisels of the ancients, as those beautiful festoons of fruits and flowers in Her Majesty's castle at Windsor, and those which ornament one of the noble apartments of the Earl of Egremont's mansion at Petworth, will evince, as well as those which decorate the choir of St. Paul's and other churches, and noble residences, both in London and in the country.

Architects make their models of this wood, and the carvers prefer it on account of its delicate colour, close grain, easy working, and for its not being liable to split. That it is not subject to worms must be satisfactorily proved by the preservation in which we now see the works of Gibbons, that have been exposed since the time of Charles the Second. It is also remarked by Pliny, that the worm never injured this timber. Evelyn tells us that this wood is preferable to the willow, being stronger yet lighter. We presume that it was from the strong recommendation of this tree in the *Sylva*, that it came so much into use in the latter time of that author, as about that time it

was planted in St. James's Park; and we find it was also frequently planted in country towns, and trimmed up to screen the windows from the sun; for which purpose it was well adapted, both on account of the fragrance of its flowers and its shade, which is not required after the time the linden throws off its leaves; and few trees were found to bear clipping better than this, as it soon heals the wounds that are caused by the knife; and the branches are so tough that they seldom suffer by the wind, and were found to bear so great a weight that platforms were laid on them, and arbours made in the tree, one over the other. Dr. Turner says he had seen one in Germany with a table on it, around which ten men could sit. Parkinson also notices one which he had seen at Cobham in Kent, that formed three arbours over each other, "which was a goodly spectacle."

The leaves of this tree begin to open about the middle of April, and are generally fully expanded by the 20th of that month. The flowers begin to open by the middle of May, but are not in their full beauty before the middle of July. They are in some degree similar to those of hawthorn, but neither so white nor quite so large, and the flower-stalk is attached to a whitish tongue-shaped leaf. Their fragrance is agreeable to most people, and very attractive to the industrious swarm, for

————— "the bee
Sits on the bloom, extracting liquid sweet
Deliciously."

But it is observed that no animal will eat the fruit or seed of the linden tree. Columella recommends the leaves as a good fodder for cattle.

A coarse cloth was formerly made of the inner thready bark, but it was more generally used for cordage, because it has the property of remaining in the water without rotting. The Greeks made bottles of the middle bark of the linden, which were lined with pitch to prevent leakage.

It is said that no wood chars better than this for the purpose of gunpowder. It is also turned into bowls and dishes, and little pill-boxes were made of it before those of paper were invented.

The flowers were formerly held in esteem by the apothecaries, being accounted cephalic and nervine, and good for the apoplexy, epilepsy, and palpitation of the heart, &c. They were sometimes

added to the spirits of lavender, and they formed the *aqua florum tilia* of the last age. The berries, reduced to powder, were used in dysenteries, and the bleeding at the nose. Hoffman speaks in high terms of the infusion of the flowers in water, after the manner of tea, by which he says he has known an inveterate epilepsy perfectly cured.

Notwithstanding the rules of fashion, we shall always be glad to meet the linden tree in our summer walks or rides, whether it spring from the hedge-row, the enclosed park, the open street, or from the boundary of the shrubbery, where we hope the sight of it will remind the young orator of the eloquence of him whose works we have already noticed are preserved on its bark.

In humbler situations we would have this tree give the artist emulation to excel the hitherto unsurpassed Gibbons.

So great was the honour thought of planting a linden tree on the Continent, during the confederacy, that as soon as one party had made themselves masters of a village, they planted a linden in the public place, destroying those which their adversaries had set, and which was again hewed and another planted as often as victory decided in favour of a fresh party.

The finest linden trees are those that are raised from seed, which should be sown in the autumn, as soon as they are ripe, and covered with mould about three quarters of an inch deep. They are also propagated by layers, which in one year will make a good root: these should be laid down and transplanted about Michaelmas. The linden is also increased by cuttings; but the tree seldom forms so fine a cone-like shape when propagated by either of the latter methods as when raised from seed.

ARTICLE IV.

REMARKS ON THE MAGNOLIA.

BY FLORA.

“Columbus shew'd

The western world to man.”

THE discovery of America may be considered one of the most important events that has been recorded. It has discovered to us an immense territory of land; a people whose habits and minds were

new to us ; it exhibited unknown animals, and afforded us vegetables no less novel than numerous. It has had the effect of a new creation ; new wants have arisen, and new inventions have sprung up to gratify them.

“ Then commerce brought into the public walk
The busy merchant ; the big warehouse built,
Raised the strong crane, choak'd up the loaded street
With foreign plenty ; and thy stream, O Thames !
Large, gentle, deep, majestic, king of floods !
Chose for his grand resort.”

THOMSON.

The shrubs of the new world have been transplanted into our gardens, and the forest trees of America rear their heads in our woods ; whilst, in return, we have planted colonies on the newly-discovered shores, who have reared their national constitution and laws with such care, that it may probably be found thriving there in its purity when time and corruption shall have destroyed the parent trunk.

The magnolia grandiflora, or laurel-leaved magnolia, is a native of that part of America which has been named Florida, from the beautiful plants with which it abounds ; and when growing in its native soil, the magnolia is esteemed the most beautiful tree known ; it reaches from 90 to 100 feet in height, and is clothed with an ever-green leaf of the most lucid colour on the upper surface, and of a russet tint beneath. The shape is nearly that of the common laurel leaf, but much larger ; and being agreeably waved on the edge, it has not the heavy and stiff appearance of the laurel leaf, although the consistency is the same. It is sessile, and placed without order on every side of the branches. The flowers appear from June to September, during which time they perfume the air for a considerable distance round with the most agreeable odour, which at one moment reminds us of the jasmine or lily of the valley, and the next, of the violet mixed with the apricot.

During the last summer we saw a fine tree of this description in the exotic gardens of M. Bourseau, Rue Mont Blanc, in Paris, which scented the whole of that elegant plantation.

We have also seen a most noble magnolia in the grounds of the Priory, near Ryde, in the Isle of Wight ; and which, we were then told, often wafted its delightful fragrance to more than a half a mile

in distance. The flowers are produced at the ends of the branches, and are so large as to measure from seven to eight inches in diameter, and are composed of eight or ten petals, narrow at their base, but broad, rounded, and a little waved. They spread open like a tulip, and have the appearance of white kid leather more than of a vegetable substance. In its native country this tree begins to flower in May, and gives out a succession during the whole summer, so that the woods are constantly perfumed with its odour. The pencil can give but a faint idea of the splendour of this beautiful tree, which defies the pen altogether to describe its charms; its leaves are more glossy than those of the laurel, and from nine to ten inches in length, and about three inches in breadth, with a softness on the underside, that gives great variety to the foliage. The young branches are of a fine purplish brown, and when each spray, for a hundred feet in height, is holding up its petaled vase, as if to offer incense to the sun that nourishes its fruit, a mass of beauty is composed, that rivals the proudest work of man.

The fruit of the magnolia is seated in the flower in a manner similar to the strawberry, which afterwards becomes a strobile or cone, composed of many capsules, each of which, when perfect, contains two scarlet seeds. We are not aware that the fruit has ever matured its seed in this country, though we have seen some old plants that have formed strobiles of considerable size.

This splendid plant received the title of magnolia from Plumier, who so named it in honour of Pierre Magnol, prefect of the botanic garden at Montpellier, and author of several works on plants.

Sir John Colliton is thought to have reared the first plant of this kind in England, at Exmouth, in Devonshire, some time prior to 1737. It was unknown to Mr. Miller, in 1724, when he published the first edition of his *Gardener's and Florist's Dictionary*; but in a later edition, he mentions that there were a great many plants in England before the year 1739, but the severe winter of that year destroyed most of the young ones. He also tells us, that he had a pretty large plant which was apparently killed by the severe winter of 1739-40, but that he cut it down after Midsummer, and that it shot up again the year following. We notice this circumstance more particularly, because in case of similar accidents, gardeners may not be

too hasty in grubbing up the roots. The magnolia is generally injured most by the early frost, as the extremities of the young shoots are then tender.

His Grace the Duke of Richmond has two of the finest standard magnolia grandiflora trees in this country, at his seat at Goodwood in Sussex, one of which, at six inches from the ground, girths four feet, and at four feet from the ground, three feet five inches; at about five feet from the earth it divides into branches, forming a very beautiful head about thirty feet in height. The other is forty-five feet in height, and measures five feet in circumference at fourteen inches from the ground: these trees flower abundantly every year. The time of their having been planted cannot be now correctly ascertained.

The Magnolia should occupy a situation sheltered from the north and north-east winds, but fully exposed to the south or south-west sun. It seems to thrive in the sea air, when the situation is not exposed; and the soil congenial to this tree is a deep rich loam, rather dry than moist.

From the noble appearance and extreme beauty of this tree, we think it deserving of more care than is generally bestowed on it, so as to secure it from the frost, and which might easily be done by placing blocks of wood in the earth, with mortices in them, into which poles might be fixed, and a frame or wirework thrown over, to lay mats or other covering on during the inclement nights. Tall evergreens, of the darkest foliage, form the most proper back ground for this tree.

Our nurserymen frequently raise these trees from seeds, which are sown in pots, and plunged into old hotbeds of tanners' bark. They are seldom strong enough to be planted in the open ground under six years; therefore gardeners are justly entitled to a considerable price for a plant that has required so much of their attention in its propagation. The magnolia may also be raised from layers and cuttings; but these seldom make handsome standard trees.

We have now about forty species and varieties of this plant, most of which are natives of North America, and nine belong to India, China, or Japan, and others raised by hybridizing in this country, France, &c., and should we be able to naturalize them so as to endure our winters in the open air, as the common tulip tree has been made

to do, they cannot fail of being regarded as one of the greatest ornaments of the shrubbery.

The swamp Magnolia glauca, was the species of this plant first cultivated in England, as it is mentioned by Ray, in 1688, as being amongst the rare exotic trees and shrubs then growing in the episcopal garden at Fulham, where it was sent by Banister to Bishop Compton. This shrub seldom exceeds sixteen feet in height in its native soil; it is found in low, moist, or swampy ground in North America, but not more northerly than Pennsylvania. The perfume of this plant resembles that of the lily of the valley, with a mixture of aromatic odour; and its fragrance is so great, that the trees may be discovered at the distance of three quarters of a mile by the scent of the blossoms, particularly towards the close of day, when it is, we are told, beyond description pleasant to travel in the woods at the season of their flowering. The tree is known in America by the name of White Laurel, Swamp Sassafras; but it is more generally called the Beaver tree, because the root is eaten as the most favourite food of the beaver, and it is therefore employed to catch these animals. The flowers of this species of magnolia are similar to those of the grandiflora. They consist of eight petals, but are not more than three or four inches over. The bark of the swamp magnolia, as well as the fruit and the young wood, form one of the American domestic medicines.

ARTICLE V.

CHARCOAL *versus* BONE-DUST.

BY BRITANNIA.

AT a late meeting of the Horticultural Society of London, the result of a trial of charcoal *versus* bone-dust, as applied to Fuchsias, was produced in the form of two plants of *F. Chevallierii*. They were struck from cuttings in one pot, and were potted off on the 15th February. A thumb-pot, full of bone-dust, was mixed with the soil in which one was potted; the other received the same quantity of charcoal. Each was potted in a 48-size pot. For a few weeks the only perceivable difference was, that the one in bone-dust had leaves of a much darker colour than the other. Both were re-potted, on April 26th, into a 16-size pot and a 60-size pot, a pot of bone-dust being given to the one, and of charcoal to the other, in the same way

as before. Both plants had grown so much alike that it was hardly possible to say which was best; and thus it appeared that, good as bone-dust is, it is equalled by charcoal in the treatment of Fuchsias for specimen plants.

August 12th, 1844.

ARTICLE VI.

OBSERVATIONS ON RAISING PLANTS FROM SEEDS FORWARDED TO THIS COUNTRY FROM THE CAPE OF GOOD HOPE AND NEW HOLLAND.

BY THE FOREMAN OF A LONDON NURSERY.

AWARE of the circumstance that numerous packets of seeds are sent from the Cape of Good Hope and New Holland to friends in this country, and having had several years' experience in sowing the seeds, raising plants, &c., of many importations to the establishment in which I am employed, I presume that a few particulars relative to the practice I have adopted, &c., will be serviceable to a portion at least of the readers of the FLORICULTURAL CABINET, and therefore forward them for insertion.

Seeds of the Cape species of *Acacia*, and other South African Leguminosæ, I find succeed better by having water heated to 200°, of Fahrenheit's thermometer, poured over them, leaving them to steep and the water to cool for twenty-four hours. Where there is a numerous collection, and the quantity small, of each [species, they remain in the papers:

The soil in which to sow leguminous seeds in general, should be one part sandy loam, and three parts thoroughly decayed leaves. The common, or wide-mouth, 48-sized pots are the best for sowing the seeds in, as they allow sufficient room for draining, and contain enough earth for the short time that may expire before planting out, and the soil in them maintains a more equal degree of moisture than in pots of a larger or smaller size: an essential circumstance to the growth of seeds of every description.

The Cape species of Leguminosæ may be sown at any time of the year they may arrive in Europe: if this should happen to be in the

autumn or winter, the growth of the plants should not be forced, as such practice tends only to produce weak plants, which rarely survive till the spring. The front stage or upper shelves in the 'greenhouse will be found the best situation for placing autumn or winter sowings: but, taking the months of February, March, and April, as the best and most convenient season for sowing those seeds, the following practice will insure to the European cultivator many species which have hitherto failed, continued scarce, or which have only exhibited poor and stunted specimens, and which, consequently, have been treated with neglect, when, under proper management, they would form suitable and splendid ornaments for the shrubbery, and make more room in the conservatory for less hardy species.

Having sown the seeds (after steeping as above,) and covered them with earth from a quarter to a half inch deep, and leaving a space for water of half an inch from the edge of the pot, they must be well watered, and placed in a declining or exhausted hot-bed, not plunging them. If the season is so far advanced that the sun's rays are powerful, the frames should be shaded from its direct influence during the middle of the day. In the earlier stages water need only be applied every third day; or, at least, so often that, without stagnating, the soil is kept constantly moist; alternate drought and superabundant moisture retard and check the progress of vegetation.

As the various species make their appearance, and the cotyledons become fully developed, the pots containing them should be separated from the rest, and placed in other frames, where they will require a more constant supply of water and admission of air, duly encouraging their growth until of a sufficient size for planting out. In this, the experience of the cultivator must guide him; but it is necessary to observe, that the first planting out should be accomplished while the plants are in a progressive state of growth, shading them if necessary.

In large establishments, the person intrusted with the management of the seeds is, or at least ought to be, a confidential person, and therefore ought to be put in possession of the lists, and any other written observations which may accompany packets of seeds from abroad. By these, he is enabled to allot to each species the peculiar earth required, of which he must be sometimes ignorant, when he meets with species new to him.

Whatever soil may be required for the plants, care must be taken not to pulverise it too finely by sifting; for the tap root in its descent, on meeting with any obstruction in its perpendicular direction, receives an impulse approaching to animal instinct, and, rounding the impediment, forms sooner its lateral fibres and roots, which are to become organs of nourishment for the future tree, &c. This will not be generally the case with plants placed in earth sifted as fine as snuff; their state of health is shown by the sickly hue of the leaves, which prematurely fall off; and, upon examination, the root will be found embedded, as it were, in a condensed cement, which all the efforts of nature cannot penetrate.

As soon as the young plants are established in the pots, they must be removed from the frames, and plunged in prepared beds of decayed bark, formed at or under the level of the natural ground; and occasionally supplied with water until the middle or latter end of August, when they are to be raised and the tap root cut off, if it should have passed the aperture at the bottom of the pot. They may remain above ground until housed for the winter, during which season as much air and as little fire heat as possible should be administered. In a general collection, it is impossible to allow every species its proper atmospherical temperature, but long confined air and damp are as injurious to vegetable as they are to animal life. There are generally some bright days occurring during the winter season: those opportunities should be embraced to purify the houses by throwing open the doors and sashes, and keeping up a brisk fire in the morning, as often as may be judged necessary.

There are few Cape plants but what will resist the effects of some degrees of frost; the *Plectranthus fruticosus*, a native of the Cape forests, is the most susceptible of injury from cold, and, if properly placed in the house, proves a warning thermometer against direct injury, as it is the first to suffer, and consequently show the increasing harm.

Of the South African Leguminosæ, the following genera form striking and beautiful ornaments in their native wilds, particularly to those who are charmed with the outward appearance and varied colours of flowers: and although the nature of the native soil where they are found to abound may be variable, a sandy loam with decayed

leaves is the most genial to the growth of most species of Cape Leguminosæ, and may therefore be used in general collections.

Omphalobium, Schotia, Sophora sylvatica, Cyclopia, Sarcophyllum, Borbonia, Crotalaria, Cytisus, Anthyllis, Sutherlandia, Indigofera, and Aspalathus generally indicate the existence of a red sandy loam.

Acacia, Virgilia, Loddigesia, Viborgia, Rafnia, Psoralea, Ononis, and Cylista thrive with greater luxuriance on the margins of streams, in alluvial and vegetable soils: but many species of the same and of other genera vary from the general rules, and are found either in pure sand or in stiff clay, exposed through great part of the year to excessive heat and drought, or but slightly sheltered and nurtured by the mountains; but deriving much of their subsistence from the dewy clouds which those heights, as these clouds pass over them, arrest and condense. So readily do South African plants appear to accommodate themselves to soils and situations, that it is difficult to positively recommend any particular compost for them in garden culture: practical experience must alone decide the best for the purpose.

ARTICLE VII.

REMARKS ON FORCING HYACINTHS,

BY CLERICUS.

For many years it has been a favourite object with me to have a fine bloom of forced Hyacinths, both in glasses and pots, and now the season for commencing operations having arrived, induces me to note down a few particulars, which I have attended to, and as the result, I have never failed to have a most brilliant display of these lovely flowers, affording me their varied beauties and fragrance, as additional charms to domestic comforts, at a season of the year which often precludes similar out-door enjoyments.

HYACINTHS IN GLASSES.

In selecting bulbs take the plump and firm ones, the more globular the better, being the most perfect.

The bulbs should be placed in *dark coloured glasses*, filling them,

no higher with water than about an inch from the bulb, wrap the glass and bulb closely round with a piece of old flannel, they must then be put in a moderately warm closet or other dark place for two or three weeks, by which time they will have emitted roots, and should be removed to an airy, light, and cool situation till about Christmas, when they may be brought into the warm sitting-room and placed near the windows.* Rain or river water is to be preferred, and should be changed every two or three weeks, the fresh water being applied about the same temperature as that removed. Should the water in either of the glasses become foul sooner than the others, the roots and the under part of the bulb will generally be found covered with a decayed substance, which should be removed and the whole plant washed. Should off-sets appear round the bulb they should be removed early. As soon as the Hyacinths are overblown, the blossoms should be stripped off without destroying the leaves or stem, and the plant laid in the earth until June, when they may be taken out and laid up on shelves or boxes in an airy situation until October, when, though not fit for blooming a second season in water, they will produce fine blossoms in the open ground, and by thus saving annually the bulbs which have been forced and their numerous off-sets, a beautiful Hyacinth bed of every shade and colour may soon be obtained, which is one of the most pleasing objects in the months of April and May. I repeat that the errors too often observable in growing Hyacinths in water are,—placing them in the *full light* when *first* planted, which is very unfavourable to the growth of the roots—keeping them away *from the light* when throwing up the leaves and blossoms, which prevents their coming to their natural colours—placing them (before the leaves and stems are sufficiently advanced) upon a chimney piece or other very warm place, which spends too much of the bulb in fibrous roots, and forces up the blossoms before they arrive at their proper size, form, or colour.

* The attention to placing them in the dark arises from the fact, that where light has free access, leaves will immediately be produced, as it is congenial to their nature; but it is the opposite with roots, and where full light exists they will not push forward. Kept in the dark roots push freely, and having obtained them first, leaves and flowers will certainly follow. When they are removed to a light situation the glasses may be filled up to the tips of the roots, and in a week afterwards up to the bulb.

OF HYACINTHS, DWARF TULIPS, &c., IN POTS.

Hyacinths, Narcissuses, Jonquils, Tulips, Persian Irises, and other bulbs for early blooming in pots, (without any hot-beds or greenhouse,) should be planted early in October, for which purpose deep-shaped flower-pots should be procured, called bulb pots, placing crocks or coarse gravel at bottom for drainage, and be filled to within two inches of the top with rich loam, containing a portion of fine road sand and decayed manure; then place the bulb on the same without pressure in so doing, and fill to the top with the same compost, after which a little pressure should be used, which will settle the bulb and mould firmly together with the top of the bulb just above the surface of the soil.

When the desired number of roots have been thus potted, they should be removed to any spare corner of the garden, and buried to the top of the pots in the earth, when they must be covered *with leaves*, rotten tanner's bark, or any other light dry substances to the depth of *nine or ten inches*, where they may remain without any attention until the plants will be found to have vegetated an inch or two; they should then be removed, and placed in any warm and light situation, where they will make rapid progress, and produce blossoms far superior to those obtained by other modes of treatment.

PART II.

LIST OF NEW AND RARE PLANTS.

ACACIA ROTUNDIFOLIA. ROUND-LEAVED. (Bot. Mag. 4041.) Leguminosæ. Polygamia Monœcia. A native of New Holland, from whence it was sent by James Backhouse, Esq., of York Nursery. It bloomed last spring in the greenhouse of the Royal Botanic Gardens at Kew. It is a straggling shrubby plant, and when trained to a trellis, its graceful drooping branches and copious profusion of blossoms, having far more heads of flowers than leaves, produces an elegant appearance. It forms a shrub three or four feet high, and well deserves a place in every greenhouse.

ASTIRIA ROSEA. PINK ASTIRIA. (Bot. Reg. 49.) Buttneriaceæ. Monadelphica Pentagynia. From the Mauritius. It has bloomed in the collection at Sion Gardens during the last spring. The plant forms a fine tree in its native country; it has a noble heart-shaped foliage. The flowers are produced in a short axillary peduncle, forming a cymous head, of about twenty flowers. Each blossom is about an inch across, of a pretty blush colour, with a deeper tinge at the centre.

CLERODENDRUM INFORTUNATUM. UNFORTUNATE CLERODENDRUM. (Pax. Mag. Bot.) We noticed this fine plant in a recent number, and recur to it now

i consequence of its deserving a place in every hot-house. It delights in a *moist stove-heat*, and to have a liberal supply of water. The plant strikes freely from cuttings, grows rapidly, and will bloom profusely when not more than a foot high. The plant is an evergreen, and the flowers are produced in large paniced heads, of a rich crimson scarlet. It was sent from Ceylon to this country

CORETHASTYLIS BRACTEATA. ROSY-ARMED. (Bot. Reg. 47.) Lasiopetalææ. Pentandria Monogynia. It is a greenhouse *shrub*, a native of the Swan River Colony, and is in the collection of Mr. Groom, of the Clapham Nursery, near London. The coloured bracts form the beauty of the plant; they are produced profusely, forming a large cymous head, composed of numerous racemes of the coloured bracts; they are of pretty rose colour having a crimson centre. Each bloom, in its native growth, is half an inch across. It is a very pretty and interesting plant, well deserving a place in every greenhouse. It has a sweet scented foliage.

EPIDENDRUM RADIATUM. RAY-FLOWERED. (Bot. Reg. 45.) Orchidacææ. Gynandria Monandria. Sent from Mexico to the garden of the London Horticultural Society. The flowers are produced in a dense raceme, of six or eight in each. A separate blossom is about an inch and a half across, sepals and petals white, stained with greenish-yellow. Labellum white, streaked with purple.

EUCALYPTUS SPLACHNICARPON. SPLACHNUM-FRUITED. (Bot. Mag. 4036.) Myrtacææ. Icosandria Monogynia. A native of South Australia, where the plant attains to a noble tree. In this country it forms, in the greenhouse, a tree about five yards high. The flowers are large, produced in noble terminal heads. Each blossom, composed of the thread-like stamens an inch long, forming a yellowish globose head.

GASTROLOBIUM SPINOSUM. SPINOUS-LEAVED. (Pax. Mag. Bot.) Leguminosææ. Decandria Monogynia. Seeds of this very beautiful flowering plant were imported from the Swan River Colony to this country by Captain James Mangles, R.N., and by that truly generous gentleman distributed liberally. It has received, in some of the London nurseries, the name of *Chorozema oppositifolia*, but it is a *Gastrolobium*. The leaves have much the appearance of a *Chorozema*. It is an evergreen shrub. The flowers are produced profusely in *terminal* clusters, each lateral shoot having one. They are of a rich orange, having a bright yellow eye surrounded with red. The keel is of a deep orange, with reddish purple wings. The plant was first raised in this country by Mr. Young, of the Epsom Nursery. It deserves to be in every greenhouse.

GASTROLOBIUM ACUTUM. SHARP-LEAVED. (Bot. Mag. 4040.) Leguminosææ. Decandria Monogynia. Mr. Drummond sent seeds of this pretty flowering plant from the Swan River Colony to the Royal Gardens at Kew. It is a greenhouse shrub, growing about two feet high, with numerous angular stalked branches. The flowers are produced numerously in short racemes. The standard is of a rich yellow, and red at the base. The wings yellow, the keel yellow, with the upper portion red. It deserves a place in every greenhouse.

GLOXINIA SPECIOSA. GARDEN VARIETIES. (Bot. Reg. 48.) Four varieties were recently raised by Mr. Carton, gardener to the Duke of Northumberland, at Sion, and distinguished as *G. magnifica*, pale rosy pink, with a streak of yellow inside the tube. *G. insignis*, tube rose, and a portion of the two upper divisions of the limb is rose, margined with white; the three lower divisions nearly wholly white; there is a streak of greenish yellow down the inside of the tube. *G. bicolor*, pale blue, with a yellow streak down the inside of the tube, and a whitish margin to the two upper divisions of the limb. *G. cartoni*, tube deep rosy-red, with a white and greenish yellow down the inside.

ISOPOGON SCABER. ROUGH-LEAVED. (Bot. Mag. 4037.) Proteacææ. Tetrandria Monogynia. Mr. Drummond sent seeds of this plant from the Swan River Colony to the Royal Gardens at Kew, where it recently bloomed. The heads of the flowers are about two inches in diameter, of a pretty rose colour, with some of deep purple.

LACÆNA BICOLOR. TWO-COLOURED. (Bot. Reg. 50). Orchidaceæ. Gynandria Monandria. From Guatemala; by Mr. Hartweg found at an elevation of 7000 feet above the level of the sea. The habit of the plant is much like that of the *Peristerias*, having pendulous racemes of flowers, ten to twelve in each. Petals and sepals yellowish-green, with white margins. Labellum of the same colour, with a large dark blotch, and a few spots of the same. The under side of the lip is of a purplish-blue.

OTTHONNA TUBEROSA. TUBEROUS ROOTED. (Bot. Mag. 4038.) Compositæ. Syngenesia Necessariæ. From the Cape to the Royal Gardens at Kew. The root is much like that of a *Cyclamen*, having a short neck, from whence proceed three or four stems six or eight inches high. Each flower is produced solitary; terminal yellow, near two inches across. It is a showy little plant.

RHIPSALIS BRACHIATA. OPPOSITE-BRANCHED. (Bot. Mag. 4039.) Cactææ. Icosandria Monogynia. From Buenos Ayres to the Glasnevin Botanic Garden, Dublin. Small plants bloom profusely, each blossom being about three quarters of an inch across, of a greenish-yellow.

SALVIA PRUNELLOIDES. PRUNELLA-LIKE SAGE. (Pax. Mag. Bot.) Labiataæ. Decandria Monogynia. From Mexico. It has been found perfectly hardy in this country. The plant spreads by means of underground stems, which develop shoots rapidly that speedily rise to the height of eight or ten inches. The foliage is not coarse, and a leaf is about two inches long by one broad. The stems are produced closely but not crowded. The flowers are produced in whorls, forming racemous spikes. Each blossom is about three quarters of an inch long, of a bright blue. It is a very pretty dwarf plant, suited for a bed, or border, in the flower-garden, and well merits a place in every one. It may be had of the general nurserymen.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON HEATING A GREENHOUSE.—Your reply to a Correspondent, who subscribes himself a "Suburban Novice," in your last Number, on the subject of heating a greenhouse, is very generally interesting. But allow me to hope that in your next you will oblige us with some detail a little more practical and explanatory. A slight sketch of the apparatus would be very desirable.

I believe I am right in supposing, that if the hot water-pipes are introduced into the greenhouse, the fire may be at any distance (YES), and that it is not necessary that the water in them should be kept actually boiling (CERTAINLY NOT). Now, if this be correct, would it not be possible to contrive a cheap moveable apparatus, which might be removed when not in use. It might consist of a small boiler (or pot) of tin or zinc, having horizontal pipes, and so constructed that a small flame placed beneath it might be sufficient to keep the water at a temperature approaching to boiling, without the necessity of resorting to all the trouble and expense of bricklayers in setting boilers in brickwork, and constructing expensive flues, &c. As the temperature required in winter would be only just sufficient to keep out frost, would you kindly enter into particulars as to how this can be most readily effected by those novices who do not keep a regular gardener, but who are content to enjoy their greenhouse plants most effectually by waiting upon themselves. I like this kind of independence, and therefore I ask the favour of you to describe in your next Number (for the season is rapidly advancing) how this may best be done.

I earnestly hope that the occasional notices upon this subject, promised by your Correspondent in the number of the CABINET for February last, p. 33, will not be omitted.

W. S. A.

[We will attend to the matter in our next, and we hope our Correspondent, p. 33, will favour us as desired by W. S. A.—CONDUCTOR.]

ON WHITNEY'S COMPOSITION.—Having observed in the May number of this year, p. 118, that Whitney's Composition is strongly recommended in lieu of glass, could you inform me if the cotton prepared as therein stated can be procured in London, or could the recipe be procured.

London, August 15.

A SUBSCRIBER.

[Early in the present summer we erected a house, the roof of small sashes, for the summer department of the finest Fuchsias, and used fine glazed calico, giving it two coats of the composition. We found it answer well for a few weeks, there was desired protection, and whilst the prepared calico gave a sufficiency of light it afforded a very good shade from powerful sun. Shortly, however, we found the leaves of the Fuchsias began to blister and turn brown, eventually dropping rapidly off, and the plants assumed a very sickly appearance. In the day time we had abundance of air admitted, but closed the roof during night. It was evident that the liquid used contained what most injuriously impregnated the air, and thus damaged the Fuchsias. At the end of July we had a storm of rain and wind, and this rent up the covering as if it had been paper. On examination we found that the calico had become so tender as not to be able to bear the least pull or pressure. A small portion of the calico had had but one coat of the composition, this was in far better condition than that which had two coats applied.

We had some pit-lights, which had been constructed for glass, covered with the prepared calico, under which were small Dahlias in pots; these were not injured by it, and the sash-bars prevented the wind moving the calico; it has in that instance done well, but the sashes were not used more than two months. Other persons have used it with cucumber sashes, and it answered well, the plants being healthy and very fruitful. A stronger material than glazed calico should be used, and numerous cross supports. It will be found, too, that some kinds of plants will not bear the effects of the composition which is transfused into the air.

The composition may be obtained of Mr. Whitney, of Shrewsbury, in bottles of 2s. 6d. or 3s. 6d. each. It is applied over the calico, &c., by means of a painter's brush, stretching it and securing it over the sashes when in a wet state, so that when it dries it is quite tight. It soon dries and is readily prepared for use. Any draper will be able to supply a better article than the glazed calico, some fine but **STRONG MATERIAL.**—**CONDUCTOR.**]

REMARKS.

ROYAL SOUTH LONDON HORTICULTURAL SOCIETY'S MEETING, Held in the Surrey Zoological Gardens.

The show of *Picotees* and *Carnations* was upon an extensive scale, the number of competitors being very numerous, and the flowers in excellent condition. The tent devoted to this part of the Exhibition was crowded during the day, and the display of these beautiful flowers appeared to afford universal gratification. The Silver Cup, offered by Mr. J. Dickson for 12 white ground *Picotees*, to be contested for among the amateur members of the Society, was awarded to T. Barnard, Esq., for a remarkably fine stand of flowers, consisting of the following sorts:—Ely's Great Western, Sharp's Duke of Wellington, Ely's Favourite, Brinkler's Lady Emily, Wain's Victoria, Wildman's Isabella, Burrough's Lady Douro, Sharp's Gem, Green's Queen Victoria, Jessop's Sir W. Middleton, Wilson's Pluperfect, and Barnard's Mrs. Barnard.

To Amateurs, Members of the Society, the Gold Medal was awarded to Mr. Edmonds for 12 blooms of white ground *Picotees*; this stand, which was very fine, consisted of Willmer's Princess Royal, Nulli Secundus, Jessop's Sir W. Middleton, Orson's Adelaide, Green's Queen, Barraud's Cornelius, Ely's Grace Darling, Headley's Nannette, Gidden's Princess Royal and Teazer, Crask's Queen Victoria, and Brinkler's Purple Perfection.—Large Silver Medal to the Rev. A. H. Matthews, who showed Dickson's Trip to Cambridge, Crask's Queen Victoria, Lady Alice Peel (seedling), Enchantress, Ne plus Ultra, and Regina (seedlings also), Brinkler's Purple Perfection, Nulli Secundus, La Elegante,

Sir R. Peel, and Lady de Grey.—Middle Silver Medal was awarded to—Proctor, jun., Bermondsey; to this collection no names were attached.—Small Silver Medal to Mr. George Leach for Burrough's Mrs. Bevan, Wilson's Pluperfect, Wain's Queen Victoria, Masson's Charlotte, Wilson's Harry, Willmer's Princess Royal, Barraud's Cornelius, Burrough's Lady Flower, Crask's Queen Victoria, Princess Augusta of Cambridge, Lady Payne, Miss Desborough.—For the best 12 blooms of Carnations the Large Silver Medal was awarded to R. Headley, Esq., no names attached. 2d. to Mr. Trevors, jun., the Middle Silver Medal, no names attached. For Heartsease in stands of 24 varieties, Middle Silver Medal, Mr. J. Hunt; Small Silver ditto, Mr. W. Hall.

Among Gentlemen's Gardeners, for 12 blooms of Carnations, the Middle Silver Medal was awarded to Mr. Embleton, gardener to T. Barnard, Esq. This stand contained the following varieties:—Dutton's Lancashire Lass, Hale's Prince Albert, Wilson's Harriet, Queen of Sheba, Greig's Mary, Barnard's Duke of Roxburgh, Martin's President, Roi Dagobert, Lord Pollington, Ely's Lady Ely, Willmer's Conquering Hero, Pucelle d'Orleans. 2d. the Small Silver Medal to Mr. Atterton (no names.) For 12 blooms of white ground Picotees, 1st. Middle Silver Medal to Mr. Welch, gardener to G. Edmonds, Esq., for Kirtland's Wellington, Willmer's Princess Royal, Jessop's Sir W. Middleton, Barnard's Mrs. Barnard, Orson's Adelaide, Ely's Grace Darling, Green's Queen Victoria, Gidden's Princess Royal, Brinkler's Hope, Burrough's Lady Flower, Wood's Mrs. Vesey, and Sharp's Wellington. For the 2d best stand, the Small Silver Medal was awarded to Mr. Embleton, gardener to T. Barnard, Esq.—Sharp's Duke of Wellington, Green's Queen Victoria, Nulli Secundus, Jessop's Sir W. Middleton, Wilson's Pluperfect, Wain's Queen Victoria, Willmer's Princess Royal, Wildman's Isabella, Ely's Grace Darling, Dickson's Trip to Cambridge, Crask's Queen Victoria, and Barnard's Mrs. Barnard.

Among Nurserymen and Florists, for 12 blooms of Carnations, the 1st Prize, Large Silver Medal, was awarded to Mr. Willmer, for Willmer's Conquering Hero, Prince of Wales, Duke of Northumberland, Hufton's Lord Wellington, Addenbrook's Lydia, Puxley's Prince Albert, Sharp's Duke of York, Wilson's Harriet, Hepworth's True Briton, Brown's Dr. Watts, Brook's Flora's Garland, and Squire Meynell. 2nd. Middle Silver Medal—Mr. Norman, of Woolwich, for Wilson's Harriet, Hale's Prince Albert, Holmes's Count Paulina, Wigg's Earl of Leicester, Ely's Hugo Meynell, Mitchell's Patriot, Brook's Flora's Garland, Sharp's Defiance, Mausley's Bonny Bess, Roi du Capucin, Norman's B, and Low's Grand Sultan. 3rd. Small Silver Medal—Mr. Bates, of Oxford, for Wilson's Harriet, Hale's Prince Albert, Nix, Lord Chetwynd, Addenbrook's Lydia, Calcott's Brutus, Jones's Brilliant, Ely's Lady Ely, Hepworth's True Briton, Young's Earl Grey, Martin's Splendid, Toon's Prince Albert, Gregory's Alfred. For the best 12 blooms of white ground Picotees—1st Prize, Large Silver Medal, to Mr. Willmer, of Sunbury, whose stand contained Willmer's Princess Royal, Gidden's Vespasian, Wildman's Isabella, Nulli Secundus, Willmer's Queen Adelaide, Sharp's Wellington, Wilson's Fanny Irby, Gidden's Miss Hennell, Jessop's Sir W. Middleton, Gidden's Teaser, Barraud's Bordene, and Hupton's Charlotte. The Middle Silver Medal to Mr. Keynes, of Salisbury, for Gidden's Miss Hennell, Wain's Victoria, Sharp's Hector, Orson's Adelaide, Crask's Victoria, Wildman's Isabella, Hupton's Charlotte, Barraud's Cornelius, Wilson's Pluperfect, Green's Queen, Nulli Secundus, and Sharp's Wellington. For Heartsease, in stands of 36 varieties, Mr. Brown, of Slough, the Middle Silver Medal. This stand contained Hannibal, Viceroy, Hale's Dark, Maid of the Mill, Orlando, Bella, Fair Maid, Warrior, Eclipse, Enchantress, Mulberry Superb, Duke of Beaufort, Cotherstone, Attila, Black Prince, William Tell, Chevalier, Alicia, The Prior, Plenipo, Venus, Duchess of Richmond, and 14 seedlings. Mr. Brown also exhibited a stand of 18 varieties of Dahlias in very fine condition:—The Beauty of the Plain, Brown's Blue Bonnet, Standard of Perfection, Essex Triumph, Brown's Lady St. Maur, Sir R. Sale, Miranda, Springfield Rival, Dodd's Prince of Wales, Perpetual Grand, Bedford Surprise, Mrs. Shelley, Rembrandt, Brown's Delight, Indispensable, Phoenix, Union, Tournament, and Queen of the Isles.

Seedling.—For the best white ground Picotee, the Small Silver Medal was

voted to the Rev. A. H. Matthews for a seedling named Enchantress; and a similar reward to Mr. Norman, of Woolwich, for the best seedling Carnation. Seedling Heartsease recommended for a prize from Mr. G. King.

SEEDLING PELARGONIUMS.—The following varieties were exhibited in addition to the three selected for prizes by the judges. Some of these were considered superior to those which had prizes awarded to them, certainly they were on an equality, and will be an acquisition to any collection. No doubt they will be offered to the public the coming season; we, therefore, give the descriptive particulars of each:—

By Mr. Whormes, gardener to E. Foster, Esq., Clewer House, near Windsor.
—Arden.—Upper petals nearly covered with a dark clouded blotch, the margin a bright crimson; lower petals a pretty rose. Of first-rate form.

Zampa.—Upper petals large clouded dark spot, graduating off to a pretty pink margin; lower petals of a fine rose; the centre of the flower a light pink. Very good form.

Ida.—Upper petals nearly covered with a dark clouded spot, terminating with a margin nearly white; lower petals a pale flesh colour; the centre of the flower nearly white. Of first-rate form.

By Mr. Mackett.—*Virgin Queen.*—Blush white, the upper petals having a dark spot.

Princess.—Upper petals having a large dark clouded spot, with a pink margin; lower petals pink; the centre of the flower nearly white. Of good form.

Elegans.—Upper petals having a large clouded spot, graduating to scarlet, and terminating with a white margin; lower petals a flesh colour.

Alice Hawthorn.—Upper petals having a dark clouded spot, and a very light margin; lower petals flesh coloured; centre of the flower white. Of good form.

By Mr. Dobson, gardener to E. Beck, Esq., of Isleworth.—*Othello.*—Upper petals nearly all of a dark blotch, terminating with a pretty lilac margin; lower petals a beautiful lilac. Of good form, and of handsome appearance.

Aurora.—Upper petals nearly covered with a dark spot, and graduating to a crimson margin; lower petals a bright carmine red; centre of the flower a lighter colour. Of good form.

Bellona.—Upper petals nearly all of a dark clouded spot, having a crimson margin; lower petals of a deep lilac pink. Of first-rate form.

Calypso.—Upper petals nearly of a rich crimson, with a lighter coloured margin; lower petals flesh coloured. Of good form.

Mark Antony.—Upper petals nearly all of a dark blotch, terminating with a light margin; lower petals a pale pink; centre of flower nearly white.

By Messrs. Lucombe, Pince, and Co., of Exeter Nursery.—*Regulator* (Thurtell's).—Upper petals having a dark blotch, shading off to a pretty purple, and terminating with a white margin; lower petals white, suffused slightly with lilac. Of first-rate form.

Othello (Thurtell's).—Upper petals nearly all of a dark crimson maroon, with a white margin; lower petals white, veined with purple. Of fine form. The petals of the above are of firm substance, quite even on the surface, and not waved in the slightest degree.

Alba perfecta.—White, upper petals having a dark blotch with white margin. Of good form.

Pluto (Thurtell's).—Upper petals ground colour scarlet, having a dark spot; lower petals of a beautiful rosy red, centre of the flower having a fine purple tinge. Of good form.

Zamzamin (Beck's).—Upper petals having a large dark blotch, with a flesh-coloured margin; lower petals flesh coloured. Of good form.

Horatio Nelson (Thurtell's).—Upper petals having a large dark spot, with a lighter margin; lower petals a pale pink; centre of flower lighter. Of fine form.

Admiral (Beck's).—Upper petals having a dark spot, graduating off to rose; lower petals a rosy red.

Susannah (Beck's).—White, upper petals having a dark red blotch.

Fairy Queen (Thurtell's).—Upper petals having a dark blotch, with a white margin; lower petals flesh coloured; centre lighter colour.

Stella (Beck's).—Upper petals having a dark spot, edged with rosy scarlet; lower petals rosy red, veined.

Evening Star.—Upper petals dark crimson, with a red spot, edged with flesh colour; lower petals flesh-coloured.

Theresa (Beck's).—Upper petals having a large dark spot, graduating to orange, with a lighter coloured margin; lower petals of a pale salmon; centre of flower lighter.

Meteor (Beck's).—Upper petals having a large dark spot, with a flesh-coloured margin; lower petals flesh-coloured.

Leonora (Beck's).—Upper petals having a large dark blotch, edged with pink; lower petals a pale pink.

Shaksppear (Smith's).—Upper petals nearly all dark blotch; lower flesh-coloured.

By *Mr. Gaines, of Battersea*.—*Eclipse* (Gaines's).—Upper petals a bright scarlet, with a small dark spot; lower petals a paler scarlet. Of good form, and very showy.

By *Mr. Hoyle, of Guernsey*.—*Bijou*.—Upper petals having a dark spot, shading off to scarlet; lower petals a salmon red. Very showy and distinct as a showy flower for the greenhouse.

Pompey.—Upper petals having a large dark crimson spot, with a lighter margin; lower petals flesh-coloured. Of good form.

Unique.—Upper petals nearly all a dark blotch, with a lighter margin; lower petals lilac; centre of flower nearly white. Of good form.

Champion.—Upper petals having a large dark spot, with a light margin; lower petals a bright rose colour.

Titus.—Upper petals nearly all dark, with a bright red margin; lower petals fine flesh colour; centre lighter. Of good form.

Mr. Hoyle also sent a quantity of cut specimens, consisting of the following:—*Rosa, Claude, Annette, Unique*: these were of very good form. *Elegance*:

his is a very pretty variety for the greenhouse. *Maud, Flora, Lady Peel, Promisa, Modesty, Gipsy Maid, Jenny Deans, Africana, Lucy, Lord Morpeth, Claude, Alice, Dowager Queen, Vesuvius, Rosalie, Mermaid, Majestic, Scinde*: these have merits as ornamental for the greenhouse.

(To be continued in our next.)

ON SPRING BLOOMING FLOWERS.—The season for procuring and planting the bulbous spring flowering plants now arriving, I beg to direct the attention of the readers of the FLORICULTURAL CABINET to the subject of a more extended cultivation of those lovely harbingers of a more genial season. I have a small flower garden divided into numerous beds, which I designate, "The Spring Garden." It is situated opposite my sitting room, where the windows extend so low, that I have a view of the greater part of the garden as I sit in the room. It is in a very nice sheltered and sunny situation, and I can assure the readers of this, that having so lovely a spot in beautiful bloom in February, March, April, and into May, with *Snowdrops, Crocusses, Hepaticas, Hyacinths, Scillas, &c., &c.*, is one of the most pleasing and interesting sights to see,—a garden thus adorned when there is scarcely another bloom to be seen in the open ground. I have numerous small beds in order to plant them in masses. Some beds I form in stripes of colours, giving as strong a contrast as possible.

The principal genera I grow are, the best kinds of *Snowdrop, Crocus, Scilla, Hyacinth, Narcissus, Dogs Tooth Violet, Frittilaria, Jonquils, Star of Bethlehem, Crown Imperials, Dodecatheon, Early Tulips, Early Gladiolus, Early Iris, Anemone, Scarlet Turban* and other *Ranunculus, Cyclamen Adonis, Soldanella Bulbocodium, Helonias, Primroses, Auricula, Polyanthus, Yellow Draba aizoides, Blue dwarf Gentian, White Arabias grandiflora, Hepaticas, pink, rose, lilac, white, and blue, Blue Omphaloides*. Showy kinds of the above bulbs and tubers may be procured at a cheap rate. I calculated the first season what quantity would furnish my garden, and offered a florist a stipulated sum, which was accepted. My stock has amazingly multiplied in four years.

LOUISA.

STRELITZIA REGINÆ.—The distinguished friend and liberal patron of science, Sir Joseph Banks, Bart., in early life was an ardent cultivator of botany and natural history, and, although under an actual matrimonial engagement, applied for and obtained the place of naturalist to the first expedition under Captain Cook, and at the Cape of Good Hope met with the fine plant in question. Finding it to be a new genus, he, with great tact, determined to name it after the Queen of England, a princess of the house of Mecklenburg STRELITZ, and coined for it the classical name of *Strelitzia*, adding *reginæ*. A greater compliment could not have been paid her. But what became of Mr. Banks's betrothed? I heard that the suspension of Mr. Banks's proceedings was not relished by the lady or her friends, and excited some severe remarks; which, however, were soon quieted by the powerful charm of a draft in her favour on his banker for 10,000*l.*; not that he loved her less, but that he loved "science more."

REVIEW.

A PRACTICAL TREATISE ON WARMING BUILDINGS BY HOT WATER, ON VENTILATION and the various Methods of distributing ARTIFICIAL HEAT, and their Effects on ANIMAL and VEGETABLE PHYSIOLOGY. To which are added, An INQUIRY into the LAWS of radiant and conducted HEAT, the CHEMICAL CONSTITUTION COAL, and the COMBUSTION of SMOKE. By CHARLES HOOD, F.R.S., F.R.A.S., &c. &c. Second Edition, greatly enlarged and illustrated by Numerous Wood Cuts, 8vo., p. 348. Published by Whittaker and Co., Ave Maria Lane, London.

Heating buildings by means of hot water, has within the last few years engaged much of public attention, and a great deal has been written on the subject by mere theorists, the work now before us is by far the best that has yet been published. The details are exceedingly clear and comprehensive, the entire subject is gone into in every minutiae, and the book contains whatever appears to be necessary on the various topics.

Every reader of it will at once perceive that it is written by a person practically acquainted with, and who thoroughly understands the matters treated upon. In addition to the valuable details given by Mr. Hood from his own practical resources, he has added extracts from other writers of whatever was deemed illustrative of, and calculated to contribute to promote the object. To give every facility to a proper knowledge of the subject, numerous engravings are given throughout. Every person desirous of heating by means of hot water, either dwellings, horticultural buildings, offices, &c., ought to procure the book; it is the ultimatum publication on the subject.

FLORICULTURAL CALENDAR FOR OCTOBER.

ANNUAL flower seeds, as *Clarkia*, *Collinsia*, *Schizanthuses*, Ten-week Stocks, &c., sown soon in pots, and kept in a cool frame or greenhouse during winter, will be suitable for planting out in open borders next April. Such plants bloom early and fine, and their flowering season is generally closing when spring-sown plants are coming into bloom. Many of the hardiest kinds should be sown in the open borders.

Biennials, as *Scabious*, *Sweet Williams*, *Canterbury Bells*, &c., should now be planted where to bloom next season; they do better than when kept till spring.

CACTUS.—Plants that have been kept in the open air now put in the stove will soon bloom.

Carnation layers should immediately be potted off if not done before.

China Rose cuttings yet strike very freely.

Calceolaria seed should be sown soon, or be reserved till February.

Auriculas, *Polyanthuses*, &c., should be placed in winter quarters by the middle of the month.

Cuttings of stove plants, as *Vincas*, *Roellias*, *Justicias*, *Clorodendrons*, should now be struck; they will make pretty plants for next season; as also sundry greenhouse plants.

DALLIAS.—Where the laterals or buds are very numerous, they should be

thinned out so as to have vigorous blooms. Collect seed of the early-blown flowers. Heap soil round the stem to save the crown from injury by frost.

Mignonette may now be sown in pots to bloom in winter.

Pelargonium cuttings struck root should now be potted off. Seeds should be sown as early now as possible, or otherwise left till spring.

Pinks, pipings of, if struck, may be taken off and planted in the situations intended for blooming in next season, as early as possible.

Plants of Herbaceous Calceolarias should now be divided, taking off offsets and planting them in small pots.

Verbena Melindris (*chamædrifolia*), &c. Runners of this plant should now be taken off, planting them in small pots half filled with potsherds, and the rest with good loamy soil, then placing them in a shady situation. It should be attended to as early in the month as convenient. When taken into a cool frame or greenhouse for winter protection, much of the success depends on being kept near the glass; or sink a box or two half filled with potsherds, and the other good loamy soil round the plant, so that the runners, being pegged down to the soil, will soon take root at the joints. When a sufficient number are rooted, separate the stems from the parent plant, and those in the boxes will be well established, and, being removed before frost, are easily preserved in winter, as done with those in pots.

Plants of Chinese Chrysanthemums should be re-potted if necessary; for if done later the blossoms will be small. Use the richest soil.

When Petunias, Heliotropium, Salvias, Pelargoniums, (Geraniums, Mesembryanthemums, Bouvardias,) &c. have been grown in open borders, and it is desirable to have bushy plants for the same purpose the next year, it is now the proper time to take off slips, and insert a number in a pot; afterwards place them in a hotbed frame, or other situation having the command of heat. When struck root, they may be placed in a greenhouse or cool frame to preserve them from frost during winter. When divided and planted out in the ensuing May in open borders of rich soil, the plants will be stocky, and bloom profusely.

Tigridia pavonia, commellina, &c. roots may generally be taken up about the end of the month.

Lisianthus Russelianus seed sown immediately will produce plants for next year's blooming. It is one of the finest plants grown. It is best treated as a stove biennial.

Plants of Pentstemons should be divided by taking off offsets, or increased by striking slips. They should be struck in heat.

The tops and slips of Pansies should now be cut off, and be inserted under a hand glass, or where they can be shaded a little. They will root very freely, and be good plants for next season.

LOBELIAS.—Off-sets should be potted off, so as to have them well rooted before winter.

Greenhouse plants yet out will require to be taken in by the middle of the month; if allowed to remain out much longer, the foliage will often turn brown from the effects of cold air. Where they are in, all air should be admitted by day. The plants should not be watered over head at the close of the day. Water the soil too only in the early part of the day, if not so attended to, the leaves will be liable to damp off. Loosen the soil at the surface frequently, it contributes much to health.

Seeds of many kinds of flowers will be ripe for gathering this month.

When Lilies, Crown Imperials, Narcissuses, &c., require dividing, take them up now, and replant them immediately.

Hyacinths for forcing, if not already done, should be potted immediately. So of Guernsey Lilies and other bulbs.

See last month's Calendar for Ranunculus beds.

Tulip seeds may now be sown in shallow pans or boxes, covering it slightly.

SHRUBS.—Plant where required as early as possible, they will strike root before winter.

Sweet-scented Violets.—Plants should be potted, or planted in frames, now for forcing. (See articles in former Numbers.)





1. *Fuchsia Village Maid*. 2. *Thunbergia chryseps*

Flor. Cabinet Nov' 1844.

THE
FLORICULTURAL CABINET,

NOVEMBER 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

FUCHSIA—VILLAGE MAID. (HARRISON'S.)

WE remarked in previous numbers of the FLORICULTURAL CABINET, that we have for several years paid particular attention to the culture of the Fuchsia, and to the raising of new kinds; the one now figured is an hybrid which bloomed for the first time this year. The plant is of a very neat habit, forming a bush of about two feet and a-half high, with stiff branches, slightly pendant at the extremities, and blooms profusely.

THUNBERGIA CHRYSOPS. GOLDEN-EYED.

This very charming new species of Thunbergia is a native of Sierra Leone, and was brought from thence, at much risk and danger, by Mr. Whitfield, to the Right Hon. the Earl of Derby, Knowsley Park, near Prescot, in Lancashire. Through the liberality of his Lordship it has been liberally distributed. The habit of the plant appears to be with us, growing in a greenhouse, what may be designated but a half climber, forming a pretty bush. Having cut off the ends of the branches for striking, it induced numerous stiff growing laterals, which give the plant a compact form. It blooms freely, and will bloom all the summer and autumn. It grows vigorous, and is easily increased by cuttings. It deserves to be grown in every greenhouse, conservatory, or hot-house; and as a companion to the yellow

and white flowering kinds will produce a very pleasing contrast. We have seen a number of plants, but it appears not to be attacked by the red spider, as are some of the other kinds. It is a very likely plant to flourish well in a dwelling-room.

ARTICLE II.

DESCRIPTION OF A CHEAP MOVEABLE HOT-WATER APPARATUS FOR HEATING A GREENHOUSE, &c.

BY MR. JOSHUA MAJOR, LANDSCAPE AND ARCHITECTURAL GARDENER,
KNOSTHORPE, NEAR LEEDS.

I PERCEIVE in the last number of the CABINET a Correspondent asks, "If some cheap moveable hot-water apparatus could not be contrived for warming a small greenhouse, without setting boilers and forming flues." If the following communication has not already appeared in the FLORICULTURAL CABINET respecting a portable hot-water apparatus which I invented in the year 1833, probably its insertion in your next may prove useful to your correspondent.

The apparatus may be made of tin or copper; the latter, though of course it would cost more at first, would, owing to its durability, in the end no doubt be the cheapest. Charcoal or small coke is employed for heating the apparatus; oil-lamps have been tried instead of it, but with not near so good an effect. As it is necessary to have pipes to convey the effluvium (arising from the fuel) out of the place required to be warmed, it will, in order to secure all the heat possible, be of importance to introduce a sufficient length to allow the heat to pass off, before the ends of the pipes are turned to the outside. In order to make the smoke conductors suitable for any situation, it is only necessary, in addition to the elbow pipes, to be provided with several lengths of straight pipes, placing one elbow upon the permanent smoke conductor connected with the fire, and the other at the extremity or midway of the piping, as it may be required. The largest sized apparatus could not well be more than eight feet long; as, if larger, it would be inconvenient to move about. The size of the one which appears the most useful is as follows:—the whole height of the centre portion of the apparatus, comprising the boiler, &c., is 16 inches, and width 7 inches by 9 inches; the fire-pan $6\frac{1}{2}$

inches by $7\frac{3}{4}$ inches, and 4 inches deep; surrounded on three sides by a boiler half an inch in diameter, which becomes more spacious upwards as the fire-place diminishes. The opening necessary for the reception of the fire-pan and for supplying it with fuel is 8 inches wide by 6 inches deep. At the top of this opening the fire-place commences tapering; consequently the water in the boiler expands more immediately over the fire, the smoke-pipe takes its regular width ($1\frac{1}{2}$ inch in the boiler) about an inch below where the lid unites. The horizontal water pipes are each 33 inches long by $2\frac{1}{2}$ inches in diameter; the end pipes are $15\frac{3}{4}$ inches high by 3 inches in diameter; a feeder is added, in case it should be thought better to have the lid fixed tight on the boiler. In order to promote the circulation of the water, small holes are to be perforated in the top of the lids, which are also intended to be fixed tight. The apparatus may either be placed on the floor of the place to be warmed, or raised by bearers, or suspended by wire or cord; the two latter methods assist the fire to burn more freely.

ARTICLE III.

ON HEATING A GREENHOUSE BY MEANS OF HOT WATER, &c.

BY C. C., OF SOMERSETSHIRE.

ACCORDING to my promise in the CABINET for February, and by the desire of your correspondent, W. S. A., in the last CABINET, I now offer a few hints on the best manner of heating a greenhouse, which I hope will be of some use to the reader.

There is no doubt but hot water is the best agent for heating a greenhouse, the only thing to find out is the best manner of applying it to that purpose, which, I think, will be effected by pursuing the following method.

I recommend your correspondent to get one of Stevenson's boilers according with the size of his house. If the house is not more than twenty feet long the smallest size will do, and as this boiler consumes but very little fuel, the best is coke from the gas-works, which is also very cheap. The boiler requires no setting, only to place it on a plain bottom; it takes but very little room and may be placed in any convenient corner. At the top of the boiler is a union-joint

to attach a pipe, which may be of lead or iron, and be carried round the house and enter the boiler near the bottom. If the party choose the pipe may be carried along a channel in the floor, and some fancy trellis iron-work be placed over it, which would be rather ornamental. A single pipe of two-inch bore would be quite sufficient to attach to the small-sized boiler. As the main point in the management of a greenhouse in the winter season is to keep it in a healthy state, but very little moist heat would be required; it would, nevertheless, be well to have two or three tin troughs, about a yard long, to place on the pipes, and fill them with water, which would give a moist heat at any desired time. It cannot be too strongly remarked that too much fire heat is very hurtful to most greenhouse plants in the winter, enough only being required to keep out frost, or to dry up damp, which should be done by lighting some fire in the morning, and opening some of the sashes, if the weather will permit it, and let the fire go out towards evening, except the weather be severe, in which case enough fire should be kept in to raise the thermometer to about forty degrees, which would be quite sufficient in ordinary frost; the water would not require to be heated above blood heat to keep up the desired temperature.

ARTICLE IV.

ON FORMING THE DIRECTIONS OF PLEASURE-GROUND WALKS, &c.

BY AN AMATEUR LANDSCAPE GARDENER.

MUCH perplexity occurring in giving a proper direction to the walks of a shrubbery or pleasure-ground, and having had a considerable share in marking out the lines of walks in various situations, induces me to transmit a few hints on the subject, hoping it may in a degree assist some of the readers of the *FLORICULTURAL CABINET* in such operations.

Walks are not formed by nature, but are the efforts of man or beast, &c., and the difficulties existing in opposing objects render curved lines and circuitous directions to be taken. The refined taste of modern gardening, especially among trees, shrubs, &c., is to reject straight paths, but unless there exist a reason beyond this, to adopt it

in all cases would be faulty; as in the surface of the earth generally, hills, valleys, trees, shrubs, or water, points out the necessity, so in the case we refer to there should always be a reason for diversion of path, and if the situation does not naturally possess such, art must be employed to effect the necessity. Windings, however, must not occur so frequent in wide walks as in narrow ones, but be in proper proportion where art is employed generally, as is to be done in flat situations, taking care that two curves are not seen at one view, but an object of concealment exists, unless in the case of a winding stream of water.

In marking out roads the artist must greatly depend upon his feeling, in the choice of a line which shall at once be inviting and productive of pleasure, as leading to those spots where beautiful natural scenes are presented to view. These lines may be accurately marked out from a plan, or by means of arrangements in nature; but a line of this sort always betrays a compulsory course, it wants that free and bold sweep, or, in other words, it wants *nature*.

It also frequently happens, that a line which appears particularly beautiful on paper is not pleasing in nature. The paper is a flat surface, this is seldom the case in nature; consequently, the lines must appear different, as we have previously observed. Therefore lines rising from valleys, and ascending over hills, are much more difficult to trace out than those on a level surface. In the first case, their appearance is as varied as the forms of the hills and dales over which they are to wind. To overcome this difficulty, I know of no other rule than that these lines should be carefully tested, and by repeated corrections and improvements be brought nearer to nature as well as to beauty.

Tracing out walks should therefore, 1st, not be considered so trifling, because much more is required from the lines which define them than that they should merely describe curves. They should have a noble, majestic, and graceful curve. 2nd. At every new turn, directly opposed to the preceding one, the reason and necessity which occasioned it must be shown. 3rd. The objects to which the walk leads should account for its existence.

Walks may be so constructed as to make gardens appear much larger than they actually are, by never allowing the boundary, which is often very limited, to be seen, but which must be concealed by

thick plantations, and its vicinity never guessed at. Especially, they must not approach too near to those openings, where the outer landscape, by means of ha-has, appears as if it belonged to the garden. A garden may also appear much larger to the spectator when the paths take contrary turns, and by circuitous routes describe a longer line. But this sort of deception does not always succeed; the deceit is but too soon discovered, even if these sudden windings, which must, besides, be often repeated, do not present obstacles.

Among such repeated turns, and to dissipate the suspicion that they might awaken, the spectator must be surprised, now by a beautiful inscription, a murmuring fountain, which will recal Vauclose and the complaints to Laura; and now by an urn, a bust, &c.; and thus his mind be occupied with more elevated subjects than the course of the walks.

A neighbouring path should never be perceived from any walk, because this would destroy the illusion of size. The plantations, therefore, which separate these near walks, must be close and impervious. At the narrowest spots these plantations should be at least from 15 to 20 or 30 feet wide. In large extensive grounds, however, where no deception to increase the apparent size is necessary, sometimes, from one walk, others may be seen through transparent plantations; and, from the momentary appearance and disappearance of the passers by, animated and lively pictures may be produced.

A walk winding in a gentle slanting curve up a steep bare hill, on the other side of which a beautiful landscape, half concealed, is by degrees revealed to view, has a particularly picturesque and beautiful effect. To display this sort of beauty, however, the walk should only have a single long shallow curve, which would also render the ascent easier. For the same reason, those walks which are to be carried over very steep hills can only be properly executed when they are cut first from the right to the left, and then from the left to the right, (zigzag,) and thus their extent increased. In cases, however, where the zigzag line cannot be sufficiently extended, or cannot be applied, in order to facilitate the ascent, steps, either of stone or of oak, must supply its place. These steps should not be more than five inches high, and not more nor less than two feet apart, to be ascended conveniently.

When two walks are to be united, it should never take place at a

right or obtuse angle, but rather at an acute angle, by which the lines of both walks will be united in a much more beautiful manner.

The marking out of all these lines and forms, if they are to approach their original pattern, nature, is, as we have already said, a matter as important as it is difficult. It is easily understood, therefore, that he who undertakes to lay out a garden in the natural style ought to be a good draughtsman in geometrical plans as well as in landscapes. But there is a great difference between expressing these forms in miniature on paper, and marking them out in their natural size in nature. If the cleverest landscape-painter were to draw such large lines, which often proceed in connected circles, and in lines several miles in extent, with a tracing-stick which must be four or five pounds' weight, he would find great difficulties, and his first attempt would not likely be successful.

In order to facilitate this operation, I will here explain my method of drawing in nature, which I have followed since I first began to practise, and which I have communicated to many others. The plan on which the improvements are designed, which are now to be staked out, shows the natural objects, under what form they are to appear, and where they are situated. According to this plan, the principal points in nature will be determined; but, as has been already observed, without straining to observe them too minutely, in case nature should thereby be distorted, or fine trees fall under the axe, which, without injuring the landscape, might have been preserved, if the line of the water or walk, or any other line, had been altered a little. There may also be obstacles of another kind contrary to nature, which could not be foreseen in making the plan.

But these difficulties will not be insurmountable to one who is familiar with nature, and her numerous forms and means of remedy; because he will make such alterations as will not affect the beauty of his grounds, but, if it be possible, improve them by those very means. Hence, it is clearly enough seen, that, in executing the plan, it cannot be exactly followed up, because it only gives the principal forms and situations. It can only show the scenes the grounds are to present; and point out where the hills, the valleys, the lakes, the ponds, the waterfalls, the bridges, &c., are to find their places.

The instrument with which large and small outlines in nature are drawn on a large scale is a round stick, or tracing-staff, pointed with

iron at the bottom, to draw the lines in the earth. The artist holds this stick with the right hand above, and the left below, and in such a manner as that the iron point is turned towards the ground backwards. With an erect position and proceeding, and his glance directed forwards towards the existing localities, the main points being previously determined by the plan, and which his line (if no obstacles intervene) is to arrive at, he pursues, with a steady pace, the beautiful undulating line which his practised imagination presents to his mind; and, as it were, displays before him.

With his tracing-stick turned backwards, and grasped with a firm hand, the point pressing on the earth, the artist imprints the line of beauty on the ground mechanically without any further care or requiring to look behind him; immediately after him follow two labourers, who set in posts, but do not beat them firmly in at first. When he has reached the end of his line, he turns back, examines its course, improves it, and then has the posts firmly driven in, or the line cut out with a sharp hoe.

Thus the artist remains in an upright position; he overlooks as he draws the points determined beforehand which his line is to touch, and advances towards them in a manner as agreeable as it is natural. He has the whole locality which his grounds are to embrace, and the forms which he has already sketched, and which are to be in unison and harmony with the rest, constantly before his eyes; and his perception of the beauty and truth of nature directs his steps, and consequently his tracing-stick, which follows faithfully the motions of its master.

The chief artistical value of a good picture lies more in the correctness of the drawing than in the colouring; therefore, the faults of colouring are more pardonable than those of drawing. Thus, also, correct drawings of beautiful picturesque forms and outlines are required in gardens, because they also greatly contribute in giving the grounds their chief merit. For this reason, the manner above described of drawing on a large scale is to be preferred to the usual method, because it is capable of defining more distinctly than the other does. The practised artist is able, also, to draw as quickly as he goes, but while drawing out the line he must not look backward, or he will be in danger of losing the imaginary line, and forming another which will not properly harmonize.¹

ARTICLE V.

FLORICULTURAL GLEANINGS.—No. 16.

BRIEF REMARKS ON DESIRABLE TULIPS, IN REPLY TO THE
INQUIRY OF A CORRESPONDENT, "W. J.—n."

BY MR. WILLIAM HARRISON, SECRETARY TO THE FELTON FLORISTS' SOCIETY.

IN complying with the request of your correspondent, I beg to say that I feel great pleasure in doing so, as I cannot help thinking that the many inquiries now made, and the extensive correspondence carried on throughout the kingdom, on the subject of this favourite flower, are very convincing proofs that the "Tulip fancy" is spreading far and fast among rich and poor throughout "our sea-girt isle." The valuable varieties have been rapidly circulated in the last few years, and as your correspondent wants information respecting varieties, "as near *perfection* as possible," I have confined the following remarks to those sorts which I consider in general very fine. The lateness of the season prevents me from indulging in any preliminary remarks, and I shall therefore proceed at once to the

FEATHERED ROSES.

CATHARINE.—This variety has a pure bottom, good cup, cherry feather, and slight flame, but is a trifle pointed in the petals.

CLAUDIANA.—This possesses a very pure bottom, good cup, and beautiful cherry feather.

CERISE BLANCHE, has a very fine pure bottom, fine cup, and beautiful delicate rose feather.

COMTE DE VERGENNES, has a remarkably pure bottom, beautiful cherry feather, cup not very good, the outer petals generally turning outwards, but still a very beautiful middle-row rose.

DUTCH PONCEAU.—This is one of the most beautiful feathered roses in cultivation, the cup being remarkably pure, the feathering very delicate (if the finest strain can be got), and the petals widest almost at the very top, forming a very fine cup. It is a lovely and delicate variety.

LADY CREWE.—This is another very fine feathered rose, pure bottom, good cup, and the feathering generally heaviest round the top of the petals.

ROSA BLANCA.—This is another beautiful variety, finely feathered, with a deep rose. A splendid bloom of this variety took the first prize at Felton this season, and was one of the finest feathered roses that I have ever met with.

ROSE WILLIAM;—fine feather, heaviest round the top, pure bottom, but rather long cup.

ROSE CARMUSE;—pure bottom, good cup, fine feather, and slight flame.

VENDA;—a fine feathered clean rose.

ARLETTE.—This is a very beautiful flower, very fine cup, pure bottom, and splendid feather. A breeder of it broke in the collection of Thomas Bromfield, Esq., of Belford, two years ago, and it appeared to me to be one of the very finest in his large collection.

FLAMED ROSES.

AGLAIA.—This is a very fine flower, clean in the cup, beautifully feathered and flamed, and ought to be in every collection.

CATALINI.—This also is a fine pure bottom, and good flamed flower.

CERISE A BELLE FORME.—This variety possesses an extra fine cup, pure bottom, feathered, and slightly flamed.

CERISE TRIUMPHANT; also very clean and fine, generally feathered, and slightly flamed.

CLARK'S CLIO.—This is a very beautiful flower, having a heavy cherry feather, fine flame, and clean bottom. It ought to be in the possession of every competing amateur.

DUCHESS OF CLARENCE.—This flower, as we grow it here, is a very beautiful flamed rose, fine cup, and clean bottom, but the stamens are sometimes a little *stained* at the top.

GRAND ROSE IMPERIAL is a fine flamed rose.

LA BELLE NANETTE.—This is a splendid variety, clean in the cup, and finely feathered and flamed, and in every respect beautiful.

LILAS ROSE.—This is grown very fine in the north, the cup being fine and pure, with a heavy feather, and generally a slight flame.

MADAME VESTRIS. This is a magnificent flower, the cup when grown strong getting to a large size. It has a beautiful heavy cherry feather and flame, and is certainly one of the finest roses in cultiva-

tion, and ought to be in every collection. It is said by many to be the same as Clark's Clio, and Princess Sophia of Gloucester. I cannot vouch for the accuracy of this, although my blooms were certainly very similar this last season.

MONSIEUR PITT.—This is another pretty rose, but rather narrow in the cup; heavily feathered round the top, and slightly flamed; bottom very pure.

ROSE QUARTO; fine clean cup, and palish flame.

ROSE UNIQUE; heavy rich dark rose flame, good cup, and pure bottom.

ROSE TRIOMPHE ROYALE.—This is an old variety, well known and highly esteemed. It possesses a fine cup, pure bottom, and is generally feathered and flamed; and as it takes prizes in all parts of the kingdom, the competitor cannot grow too much of it.

FEATHERED BYBLOMENS.

AMBASSADOR.—This, in its best state, possesses a good cup, pure bottom, and fine dark feathering, and is a very desirable flower.

BLACK BAGNET.—This is a favourite feathered byblomen in the north, the cup generally being large, and the bottom pure, and the feathering bold and heavy, making it an attractive flower at an exhibition.

DAVID.—This is a very pretty feathered variety if the fine strain can be obtained, which however appears to be rather difficult to accomplish. The cup is clean, and the feather a fine dark purple, although I have always considered the petals rather too narrow at the top to constitute a first-rate show flower.

IMPERATRIX FLORUM. This is a very pretty feathered byblomen with me, bottom pure, cup low and wide, and the feather very fine and heaviest round the top.

JEFFREY'S ROYAL GEORGE; said to be one of the finest *in the world*, but it has never prospered with me.

CAPT. LAMPSON (Lawrence's) possesses a fine cup and beautiful feather, but the bottom is very creamy and difficult to bleach.

REINE DE SHEBA.—This is one of the most delicate and lovely gems that I have yet seen. When opening, it seems a long narrow cup and rather creamy bottom, but after it gets open it forms a handsome cup, with a palish lilac feather, the little yellow in the bottom

bleaches out, and it is then the admiration of every beholder. No collection should be without this beautiful flower.

ROSCIUS has a very creamy bottom, good cup, fine feather, and very slight flame.

WINIFRED possesses a very pure bottom, dark feather (not very regular), and slight flame; a very pretty variety.

LOUIS XVI.—Grand cup, and finely rounded petal, but the bottom of the cup very indifferent. What a pity he is not *perfect* in this respect!!!

FLAMED BYBLOMENS.

CONSTANT.—This is a very beautiful byblomen, finely feathered and slightly flamed, good cup and bottom, as pure as satin the moment it expands, and fit for any stage in the empire. Unfortunately it is a very slow propagator, so that those who have it can circulate it very slowly.

DAVID.—Pure bottom, good cup, and heavy purple feather and flame.

DUKE OF NORTHUMBERLAND.—This is a very magnificent middle row byblomen, and worthy of introduction into the choicest collection. The cup is large and fine, the bottom perfectly pure, the feather nearly black, and a fine pencilled flame running a good way down the petals, yet leaving a sufficiency of the bottom pure. The whole of the stock of this splendid flower is in the possession of Mr. Bromfield, of Belford, who bought it some years ago from the person who broke it. It is well worthy of the attention of "the fancy," and should be in every select bed.

ELY'S QUEEN VICTORIA.—This variety perhaps shows finer pencilling than any other flower in existence. It possesses a fine cup, a feather made up entirely of beautiful pencillings, and also a slight flame. Its bottom is rather creamy, but still it is a beautiful and delicate variety.

HOLMES'S KING, possesses a fine white, clean cup, and a beautiful angular pillar up the centre of each petal. This variety sometimes feathers also, but this I understand is very rare.

LA BRUINE DIANA.—This is a very excellent flower, fine pure cup, and heavily flamed with a dark purple.

LAWRENCE'S FRIEND.—This is a splendid byblomen. It possesses

a fine dark heavy feathering, and is also flamed, forming a very fine large cup. The bold dark marking and the fine white ground colour form a fine contrast, and make it an attractive flower for an exhibition.

PERLE BLANCHE.—This flower possesses a fine cup, pure bottom, light feather and flame, and is worthy of a place in any collection.

PRINCESS CHARLOTTE'S CENOTAPH.—This variety is a pure white with the exception of a single stripe (up the middle of each petal) of pale purple, and is the only variety in existence marked in this style.

ROI DE PRUSSE.—This is a pretty little first row flower, fine dark purple feather, and slight flame; bottom quite clean.

ROI DE SIAM.—This is a favourite in the south, but it is rather coarse as we grow it here. The cup is good and the flaming heavy, but the bottom is rather creamy.

TRIUMPHE DE LISLE.—This is a fine strong flower, dark feather and heavy flame, and worthy of a place in any bed.

VIOLET, MA FAVORITE.—This is a delicate and pretty flower, having a pure bottom, good cup, and pale lilac flame.

RUBENS, has rather a creamy bottom, good cup, feather, and heavy flame.

ALEXANDER MAGNUS, too, should not be passed over without notice, being remarkably pure in the bottom, good cup, and feathered and slightly flamed.

FEATHERED BIZARRES.

BERNADOTTE.—This variety possesses a fine pure bottom, good cup, and fine dark brown feathering, and is a pretty first row flower, but the anthers are quite yellow.

CAPTAIN WHITE (Tyso's finest strain).—This is a fine rich bizarre, good yellow, pure bottom, fine cup, and brown feathering, and is a decided favourite when this strain can be got.

CHARLES THE TENTH.—This is also a fine feathered flower, pure in the bottom, good cup, and feathering heaviest round the top, and finely pencilled downwards.

DEMETRIUS.—This has long been a favourite flower in Northumberland, and often wins. The ground colour is a rich yellow, bottom pure, and the feathering a fine dark brown, but the cup is rather narrow.

LAWRENCE'S OSTAIDE.—This is a very pretty bizarre when the bloom is young, having a good cup, rich yellow, and fine broad brown feather; but the yellow of this variety very soon bleaches to a very pale straw colour, so that it ought to be shown very soon after it expands, and then it is a very attractive flower.

STRONG'S PLATO.—This possesses a pure bottom, good cup, and very heavy feather.

LAWRENCE'S GLENCOE.—This I believe to be one of the finest bizarres in existence. It has an exceedingly rich yellow ground, and has this year been beautifully feathered with a heavy dark brown feather round the top, nearly approaching to black. It is a very valuable addition to a collection, the cup and bottom being both quite first rate.

BARTLET'S GUIDO.—This possesses a rich yellow ground, pure bottom, and fine brown feather, but the petals are rather long and narrow.

HARRISON'S BORDER CHIEF.—This promises to be a very fine variety, and broke last year in my bed. It possesses a fine low cup, very pure bottom, and rather a slight brown feathering, heaviest round the top. It is a second row flower, and, so far, seems promising.

HARRISON'S PEGASUS.—This also promises to be a fine variety. The cup is large and strong, and perfectly clean, the feather a dark brown, slight up the edges of the petals and heavy round the top. Should it maintain this character I think it will be a very desirable variety. It only broke this season.

RUTLEY'S ALBANO.—This variety has a pale yellow ground, pure bottom, and very fine feather, but the outside of the petals is nearly white.

TYSO'S POLYDORA.—As this variety was figured in the *CABINET* last year, it will perhaps be only necessary to refer your correspondent to the plate. It is a truly beautiful variety, and ought to be in every collection. I had the pleasure of seeing it growing in Mr. Bromfield's collection in 1842, and it was there universally admired.

WALKER'S KING.—This is a very beautiful variety. The cup is good, the ground colour a rich yellow, the bottom very pure, and the feathering slight and of a fine brown. The correctness and delicacy of the feathering renders this a very attractive and distinct variety.

SURPASS CATAFALQUE and OLD CATAFALQUE must not be omitted, as they are both very fine, but there is a great deal of *trash* sent over the country for the latter variety. I, myself, have got it twice in a bad state.

FLAMED BIZARRES.

DICKSON'S DUKE OF DEVONSHIRE.—Having already in this work, (p. 83, vol. xi.,) denominated this variety the "Champion of England," I beg to refer your correspondent to the remarks there made upon it.

STRONG'S TITIAN.—This is another beautiful bizarre. The ground is a fine rich yellow, and the feathering and slight flaming a very dark brown approaching to black. It is a splendid flower, and ought to be in every collection.

STRONG'S HERO.—This is another very pretty variety, having a fine rich yellow ground, and although rather irregularly feathered and flamed with a lighter brown than the foregoing, is still a pretty and desirable flower.

OPHIR.—This is a splendid flower, although rather long in the cup. The ground colour is very rich, and the feather nearly black. It is also slightly flamed. Nobody can grow too many roots of *Ophir*.

LAWRENCE'S BOLIVAR.—This is another fine flower, rich yellow ground, dark feather, and slight flame.

DAMASCUS (Lawrence's).—This variety is magnificent, cup extra, ground fine, and feathering and flaming quite black. I applied to various quarters before I could get this flower, as it is very scarce and in few hands. It is a distinct and striking variety in a bed, and ought to be in every good collection.

SHAKSPERE (Lawrence's).—This is another fine feather and flamed bizarre, and in every respect a valuable and desirable flower for the competing amateur.

PAUL POTTER is another good bizarre, although it generally retains a good deal of the *breeder* colour near the top of the petals, this being a much lighter brown than the general marking. This, whatever some amateurs may say to the contrary, is a very sad blemish in any flower, and detracts much from its value.

POLYPHEMUS.—Much has been said of this flower, and therefore it is not necessary to say much here. It is admitted by all to be one

of the very best cups, occasionally feathered, but often far too heavily flamed. Although often grown fine about the metropolis, it is unfortunately very seldom so in the north of England.

PRINCE LEOPOLD bloomed very fine with me this last season, and seems a very good flower, clean in the cup and finely flamed.

Having now noticed a few of the leading flowers, and trespassed, I fear, on the pages of the CABINET, I shall close for the present. If spared with health to see another blooming season, it is my intention to furnish you with a brief tabulated catalogue of all the principal varieties grown in the north, so that it may be easy of reference. I trust the foregoing hasty remarks will be useful to your correspondent, and if he acts upon them, and selects from the list, I think they will not readily disappoint him. He has my best wishes for his success, and I shall be glad to learn at any future time that the varieties he purchases from the foregoing list, have afforded him as much gratification as I myself have derived from them.

Felton Bridge End, October 18, 1844.

PART II.

LIST OF NEW AND RARE PLANTS.

BIGNONIA CAROLINÆ. LADY CAROLINE'S BIGNONIA. (Bot. Reg. 54.) Bignoniacæ. Didynamia Angiospermia. Said to be a native of Buenos Ayres. It has bloomed in the collection of plants at the Earl of Ilchester's, Melbury, in Dorsetshire. It is a neat climbing species, blooming profusely. The flowers are fragrant, of a snowy-white. Each blossom is nearly two inches long and one and a half across the five-limbed face. The plant is of that class suited to be trained round a wire trellis, and so bringing a mass of bloom together. It is a very desirable plant for a conservatory or warm greenhouse. In order to induce them to bloom well the pot should be placed where the roots can receive warmth. The finest blooming plants of *Bignonia venusta* we ever saw, were grown in tubular boxes placed at the ends of a bark pit, in a coolish vinery, holes being bored at the sides through which the roots protruded into the old tanner's bark. The entire tribe of Bignonias is comprised of lovely flowering plants, and if cultivated properly, and trained as is usually done to what are termed pot climbing plants, as *Manettia*, *Tropæolums*, &c., they would rank as of first-rate beauty.

CATTLEYA SKINNERI. MR. SKINNER'S CATLEYA. (Pax. Mag. Bot.) Orchidaceæ. Gynandria Monandria. A native of Guatemala. Fine plants have bloomed in the collections of F. G. Cox, Esq., of Stockwell, in Surrey, and Messrs. Loddiges, of Hackney. The plant requires a higher, but very moist, degree of heat than any other of the Cattleyas. The flowers are produced on stiff, short racemes. Each blossom four inches across. Sepals and petals of a rich lively rose colour. Lip rose with a dark circle at the mouth, and the inside of the funnel-formed portion, white.

CHABRÆA RUNCINATA. CHANGEABLE FLOWERED. (Bot. Mag. 4116.) Com-

positæ. Syngenesia. Æqualis. A native of Chili, from whence seeds were sent by Mr. Brydges. It has bloomed in the Regent's Park Botanic Garden, London. The stems grow to a foot, or a foot and a half high, branched from the root, and more branching above. The flowers are produced in sub-panicles. Each blossom is about an inch across, white, occasionally changing to a rose colour. In appearance like a double white Daisy.

CRYPTANDRA SUAVIS. SWEET-SCENTED. (Bot. Reg. 56.) Rhamnaceæ. Pentandria Monogynia. A native of the Swan River Colony, having an Heath-like appearance. In its native habitat it grows on barren hills and rocky places, or in light sandy soil. It is a neat little shrubby plant, thrives well in the greenhouse. The flowers are bell-shaped, each about a quarter of an inch long, white. It is a pretty plant and well deserves a place in the greenhouse.

CRATÆGUS CRENULATA. INDIAN PYRACANTHA. (Bot. Reg. 52.) Roseaceæ. Icosandria Pentagynia. A fine hardy evergreen shrubby plant, from Nepal, which attains about the same size as the common Pyracantha, and requires a similar treatment. It blooms most profusely in June and July, the flowers are white, and at the closing part of summer and autumn its clusters of fine red berries produce a very pleasing appearance. It grows freely against a wall in the garden of the London Horticultural Society.

DENDROBIUM COMPRESSUM. FLAT-STEMMED. (Bot. Reg. 53.) Orchidaceæ. Gynandria Monandria. A native of Ceylon, sent from thence to the Syon Collection. The flowers are small, each about three quarters of an inch across, pale yellow, produced in small panicles.

ECHINOCACTUS CONCINNUS. NEAT ECHINOCACTUS. (Bot. Mag. 4115.) Cactææ. Icosandria Monogynia. A globular stemmed one. Flowers near three inches across, of a sulphur yellow, having each petal tipped with red.

EPACRIS AUTUMNALE. AUTUMNAL FLOWERING. (Pax. Bot. Mag.) Epacridææ. Pentandria Monogynia. A beautiful flowering hybrid, which has been obtained by Mr. Low, of Clapton Nursery, from Mr. Cunningham, nurseryman, of Edinburgh. It commences blooming at the end of October and continues till April, thus producing a beautiful appearance through winter. The tube of the flower is of a rich crimson, having the top divisions of the mouth white. Each blossom is about an inch long. They are produced numerously in fine spikes. It merits a place in every greenhouse.

EPIDENDRUM VERRUCOSUM. THE WARTED. (Bot. Reg. 51.) Orchidaceæ. Gynandria Monandria. From Mexico. It has bloomed in the collection of Messrs. Loddiges. The flowers are produced in nodding racemes of about a foot long, each blossom being about three inches across, of a rich rosy-crimson colour. The flowers are not only beautiful, but delightfully fragrant.

JUANULLOA PARASITICA. THE PARASITIC. (Bot. Mag. 4118.) Solanaceæ. Pentandria Monogynia. (Synonym *Brugmansia parviflora*, *Brugmansia floribunda*.) Dr. Hooker observes, "This so called *Brugmansia* can be no other than that remarkable parasite (or rather, I apprehend, an epiphyte) upon the trunks of trees in woods near Pozuzo and San Antonia de Playa Grande in Peru. Notwithstanding its parasitic nature, it flourishes freely if planted in earth, and kept in a moist and warm stove. It is a smooth shrubby plant, somewhat of the habit of a *Portlandia*. The flowers are produced in terminal drooping racemes, of eight or ten blossoms in each. A separate blossom is about two inches and a-half long, of a pretty orange colour. It is a very desirable plant for a warm greenhouse. If forced a little in a hot-bed frame, or plant stove, vinery, &c., in its early stage, it may then be removed to the greenhouse or conservatory, and blooms freely."

OSBECKIA STELLATA, VARIETY. THE STARRY, WITH SMALL SCALES. (Bot. Reg. 55.) Melastomaceæ. Octandria Monogynia. It is a greenhouse plant, the species being a native of Nepal. This variety has bloomed in the collection of H. T. Hope, Esq., Deep Dene, near Dorking, in Surrey. The flowers are produced in terminal heads of several in each. A separate blossom is about two inches across, of a pretty rosy-lilac colour, being very showy.

PTERODISCUS SPECIOSUS. THE SHOWY. (Bot. Mag. 4117.) Pedalinæ. Didynamia Angiospermia. This plant was discovered in Macalisberg, by Mr. Burke, while engaged in procuring plants and animals for the Earl of Derby, in the interior of Southern Africa. The plant bloomed in the stove collection at Knowsley Gardens, but it appears to be of that class of plants which will flourish well in a warm greenhouse, or in the open air during summer. The root is tuberous, large, globose, and from its summit the stem rises, which soon divides into numerous stout succulent branches, bearing opposite leaves, and large handsome red-purple flowers in the axils of those leaves. The flower is funnel-shaped, about two inches and a half long, and two across the mouth. It is a very splendid and beautiful flowering plant, well deserving a place in every situation it can be grown in.

VANDA TERES. QUILL-LEAVED. (Bot. Mag. 4114.) Orchidaceæ. Gynandria Monandria. A native of Sylhet, where it was discovered by Dr. Wallich growing upon trees in that situation. Sepals white, with a slight tinge of rose. Petals deep-rose, with pale, nearly white margins. Lip beautifully variegated with yellow and rose colour, and spotted and streaked with red. Each flower is about four inches across. It is one of the finest of the Orchidææ. Each raceme contains five or six of these beautiful flowers.

PLANTS NOTICED IN BOTANICAL REGISTER, BUT NOT FIGURED.

CESTRUM AURANTIACUM.—A beautiful flowering greenhouse shrub, seeds of which were sent from Guatemala by Mr. Skinner to the London Horticultural Society's Gardens, where the plant has bloomed. The flowers are produced in spikes, of a beautiful rich orange colour; each flower is an inch long, and continues in bloom for a long period. It will be a favourite for exhibiting at the floral shows, and deserves a place in every greenhouse.

MAXILLARIA SCABRILINGUIS.—Mr. Hartweg found it near Loxa; it has recently bloomed in the London Horticultural Society's Gardens. The flowers are of a dull purplish-yellow.

DICHLÆA GLAUCA.—A curious orchideous plant from Oaxaca, in Mexico. It has bloomed with Messrs. Loddiges. The flowers are very fragrant, pure white, except a spot of yellow at the base of each division.

HABROTHAMNUS CYANEUS.—Mr. Hartweg found it on the mountains of Yangana, near Loxa; it there formed a shrub from four to six feet high. The flowers are long, produced in great profusion, in large clusters, of a rich porcelain-blue colour. It has bloomed in the Chiswick Gardens.

GALEANDRA CRISTATA.—Messrs. Loddiges received this orchideous plant from Cayenne. It has the habit of *G. Devoniana*, but the flowers are smaller and paler.

CAMAROTIS OBTUSA.—An Indian orchidææ. Flowers a dull rose-colour, with a yellow lip. It is in Mr. Bateman's collection.

ARALIA MACROPHYLLA.—A native of the north of India, though it resembles *A. racemosa*, in structure it is much larger. The flowers are of a greenish-yellow. It is in the collection of the London Horticultural Society, and is found to be an herbaceous plant.

BOLBOPHYLLUM FILEATUM.—An orchidææ from Sincapore. It has bloomed with Messrs. Loddiges. It has a large ochre-coloured flower, with the labellum stained with purple, and bright yellow. It is singularly pretty.

PILUMNA LAXA.—An orchidææ from Guatemala, and has bloomed in the collection of George Barker, Esq., of Springfield, near Birmingham. The flowers are produced in loose erect racemes. Sepals and petals of a pale green, faintly tinged with purple. Lip cream-coloured.

PILUMNA FRAGRANS.—Discovered by Mr. Hartweg, near the city of Papayan. The flowers white, sweet-scented, with an orange-coloured spot on the lip.

PLANTS NOTICED IN NURSERIES, &c.

GESNERIA MACRORRHIZA.—The leaves are very soft and velvety, large. The flowers are as large and brilliant in colour as those of *G. Cooperii*, and produced in a similar manner. At Mr. Glendinning's of Turnham Green.

ECHITES CARASSA.—It is a slender twining shrub; the flowers are near the size of *E. splendens*, of a deeper rose, with an orange-yellow throat. It is a most beautiful flowering plant, well deserving a place in every plant stove. It is a fine plant for coiling round a trellis. It may be had at the principal nurseries.

DIPLOPELTIS HUGELII.—It is a half shrubby greenhouse plant, much branched. The flowers are produced in long panicles, of a pretty pink colour. The best plan of blooming it is to pinch off the heads and induce the production of laterals; this keeps the plant bushy, and then it forms a neat profuse blooming plant. It deserves a place in every greenhouse. It is in the Tooting Nursery.

BIGNONIA CHAMBERLAYNI.—This plant has been in fine bloom for some time at Mr. Knight's of King's-road, in the plant stove. The flowers are large, produced in profusion; of a rich yellow colour. It flourishes well in a warm greenhouse.

HABROTHAMNUS CYANEUS.—A plant is trained against the wall in the Horticultural Gardens at Chiswick, where it forms a shrub about five feet high. It flourishes well during the summer, but it appears likely to require some protection in severe winter. The flowers are long, tubular, of a deep violet-blue. It is a very desirable plant, either for the greenhouse or the open wall.

ISOCHILUS CARNOSEFLORA.—It is a very neat looking plant, growing about half a yard high. The flowers are purple, produced in cymose racemes. It is in the collection of Messrs. Loddiges.

SPARAXIS WATTII.—A very beautiful species, which has bloomed in the fine collection of Robert Mangles, Esq. at Sunning-hill in Berks. The surface of the flower is divided into six segments, three of them being of a rich violet colour, the others are lemon-coloured edged with violet. Like the entire tribe it deserves a place wherever it can be grown.

LOAZA LUCIDA.—An annual species. The flowers are about an inch across, white with bright yellow and crimson stains at the centre. It does well trained round a wire trellis in the greenhouse. At Messrs. Henderson's.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON HERBACEOUS CALCEOLARIAS.—Will some correspondent have the goodness to afford me, through the medium of your FLORICULTURAL CABINET, some instructions for the management of herbaceous Calceolarias? I am a great admirer of that flower, and succeed pretty well with the shrubby species, but am very unsuccessful with the others. Last year I had some very handsome varieties, but they all died, one as soon as it ceased to bloom, and the others, after being divided, survived for a few weeks, and gradually fell away. I procured a fresh supply this year of fine plants from a gardener, noted for his success in Calceolarias; but I have already the mortification of seeing two of them wither and droop before they have even ceased to flower. I cannot, on close examination, discover any worm at the root, nor have I kept them too moist. Any directions, and as early as convenient, will be thankfully received, for I fear that I shall lose all my favourite flowers.

August 6, 1844.

OLD STEADY.

ON RAISING SEEDLING PINKS, AND ON THE MAGNOLIA GRANDIFLORA.—Having saved some seeds from several rather choice varieties of Pinks, I should be obliged for some hints as to raising them, and the treatment of the seedlings when up. As also by your informing me of the best means of propagating the *Magnolia grandiflora*. I have one very favourably situated on a south wall, which, notwithstanding all my attention, has never bloomed more than once during the many years it has been there. I suppose there is no chance of its ever doing better, and am consequently desirous of raising a young tree to supply its place.

[Sow the Pink seed immediately in a pot or pots, and let it be placed in a moderate heat till up. When the plants have five or six leaves, transplant them into pots or boxes, a little distance apart. Early in April next plant them in the open border, in a rich soil and warm situation for blooming.]

The *Magnolia* is increased by layering, doing it in August or September. A branch or more could probably be lowered for the purpose. By grafting the kinds into the stock of another sort, either in the open ground or in a pot, that may be done now, though better early in spring. By inarching, having a branch brought down to a plant in a pot, brought near and standing on the ground, or a plant in pot being elevated and placed so as to fit the shoots to be brought in contact, in a natural position.

Plants of good size can be procured now at a trifling cost, and thus several years be gained upon waiting for a layer, &c. to supply the place of the present plant.

Has the plant grown very vigorously, or lacked moisture in summer, the shoots being weakly; medium shoots, well ripened, generally produce bloom with established plants. If very vigorous, train some more horizontal, to check the extra vigour; or if weakly, proper attention by water, or improved soil, might effect what is desired.—CONDUCTOR.]

ON BLOOMING THE CACTUS.—I have had a Cactus about three years, and I cannot get it to bloom since the first year, for the leaves that came last year appear to be withering and dying; there are plenty of leaves which do not come from the bottom, but shoots from the stems of the leaves. I was advised to take it out of the pot last year and squeeze it, then to repot it in loam, which I did, but it has not bloomed, although there is a great many new leaves. I keep it in my bed-room window, where there is a thorough air (a window back and front), and it is exposed nearly south. I will thank you if you can tell me what to do with it, from my description, which I have given as plain as I can.

Being a humble mechanic, I have not the means of giving it artificial heat, but when frosty I keep it in a room where there is a fire. An answer in your next will oblige

H. M.

No. 1, Queen's-place, Hackney-road.

[As soon as the plant appears to have done growing, then gradually decline giving it water, and wholly withhold for some weeks in mid-winter. On the approach of spring begin to water it, keeping it where the sun can shine upon it, and in a warm room, it will then throw it into bloom. As dust often accumulates on plants kept in rooms, it should be often washed overhead to cleanse it. There are several excellent articles in former numbers of the *CABINET* on the culture of Cactuses.—CONDUCTOR.]

REMARKS.

OUT-DOOR PLANT-PROTECTOR.—A year back I planted a quantity of the best kinds of shrubs, and in this cold part of the country (Cumberland) I judged it advisable to protect the most tender, as *Magnolias*, hybrid *Rhododendrons*, *Azaleas*, &c. I therefore had a quantity of covers made of straw, just as in the north we have hives for the bees constructed. Some of them were made cylindrical, two feet high; others three and four, &c. The top was made to have a lid cover, which was moveable at pleasure in mild days, &c., and returned for

protection in the evening. I fixed strong stakes in the ground, which just extended, inside, to the sides of the cover; it kept them firmly placed. In April I took the protectors away, and not a plant had been injured in the least. My plants are thriving beautifully.

A COUNTRY CURATE.

A DESCRIPTIVE LIST OF DOUBLE-FLOWERED ANEMONIES.—I am an admirer of this beautiful spring flower, and have sent a descriptive list of what I obtained last season, which bloomed beautiful this.

CLERICUS.

Actrice, variegated.
 Annette, deep scarlet.
 Archduke, rosy violet.
 Belle Alliance, deep purple.
 Belle Diane, deep scarlet.
 Belle Marie, red.
 Bijou du Parade, variegated rose.
 Bleu Aimable, blue
 Bleu Céleste, dark blue.
 Bleu Merveille, fine blue.
 Brama, scarlet.
 Cœur de France, red.
 Comtesse, white and rose.
 Cornelia, blush.
 Coronation, deep red.
 Cramoisie Pourpre, crimson purple.
 Cramoisie Royal, red.
 Diomedes, deep red.
 Dorinda, white and rose.
 Elegans, red.
 Eros, scarlet.
 Euterpe, red.
 Excellentissima, rose and green.
 Frederica, blush.
 Fulvia, rose, agathe, and white.
 Gloria Rubrorum, variegated.
 Grande Duchesse de Bade, variegated.
 Grotius, blue.
 Guillaume Premier, crimson.
 Guirlande, red.
 Hampton Court, variegated.
 Henrietta Sontag, deep red.
 Hortulanus, red.
 Jacoba von Bayern, rose and green.
 Jeannette, blush.
 Justitia, blue.
 L'Amour, white and green.
 La Beauté Suprême, scarlet.
 La Moderne, deep red.
 La Superbe Royale, claret.
 La Victoire, deep scarlet.
 La Victorieuse, red.
 Lady Arden, crimson.
 Lady de Grey, blue.
 Lady Rose, deep rose.
 Leander, rosy red.
 L'Eclair, brilliant red.
 Lilas Unique, lilac.
 Lisette, variegated.
 L'Oracle du Siècle, red and purple.
 Madame Antoine, white and rose.
 Madame Marmont, white variegated.

Madame Rosenthal, red,
 Madeleine, white and green.
 Maiden blush, blush.
 Manteau, variegated.
 Manteau rouge, deep rose.
 Maréchal de France, blue.
 Maria Christina, purple.
 Maria Louisa, deep red.
 Marie Stuart, variegated
 Marianne, variegated rose.
 Mavrocordata, blue.
 Mentor, light red.
 Mirabeau, red.
 Mon Bijou, rose and purple.
 Nestor, scarlet.
 Ovidius, deep scarlet.
 Pallas, red and purple.
 Perle d'Hollande, variegated.
 Philomela, white and purple.
 Pourpre Agréable, purple.
 Pretiosa, white variegated.
 Prince of Wales, deep rose.
 Princess Alice, white and purple.
 Purperkroon, purple red.
 Queen of Scots, blue.
 Reine des Amazons, purple red.
 Reine des Cours, red.
 Reine du Monde, rose.
 Rosa Mundi, variegated.
 Rosalie, rosy red.
 Rose Athalie, rose.
 Rose d'Amour, fine red.
 Rose Merveille, variegated with rose.
 Rose Supérieure, rose.
 Rose Unique, variegated.
 Rouge Délicat, light scarlet.
 Rouge Unique, scarlet.
 Royal Queen, red.
 Soleil d'Or, red.
 Speciosissima, scarlet and white.
 Surprise, blue.
 Sylvia, deep red.
 Talma, blue.
 Thalestris, large blue.
 Triomphe du Monde, scarlet.
 True Blue, blue.
 Turban, purple.
 Vainqueur, scarlet.
 Vergennes, variegated.
 Venus, white and green variegated.
 Victoria Regina, striped.
 Waterloo, scarlet.

ON WATERING BEDS OF GERANIUMS, HELIOTROPES, &c.—Instead of doing in the evening, as heretofore, I have this season watered my beds early in the morning, and nothing can be more satisfactory. When done in the evening, a sudden check by the cold water is given to the plants, which increases till the return of the next day's warmth; this injures the blooming of the plants; apply it early in the morning, and the soil soon gets warmed. Once a-week I give what will sink six or eight inches deep, but at other waterings about two inches only. This attention has been amply repaid in the beauty of my flower garden this summer of fine dry weather.

A LADY AMATEUR FLORIST.

ON THE USING OF CHARCOAL FOR FLOWERING PLANTS, &c.—I have proved the use of charcoal in some thousands of instances with astonishing success. What led me at first to attempt it, I had observed the same effects of charcoal in woods, and as nature made use of it so successfully, it struck me I could derive benefit from it with the plants under my care. I noticed that in the wood, where there was even a yellow stiff clay, and the subsoil a rock of clay and gravel, and where what was growing there was stunted and unhealthy, when a pit of charcoal had been burned near, and the refuse, dust, &c. scattered around the comparatively barren spot became rich and luxuriant. I use it in nearly all ways and forms. I put it in bags, and place them in cisterns of water, and into manured water; I mix it amongst the earth, and drain almost every plant with it, and I am more and more fully satisfied with its purifying qualities. I therefore strongly recommend its use by all who wish to have their floral beauties in perfection.

A NOBLEMAN'S GARDENER.

July 9, 1841.

ON PRESERVING HALF-HARDY PLANTS, PELARGONIUMS, &c., DURING WINTER.—It being now the season to prepare for a young stock of Pelargoniums and other half-hardy plants for the open beds next season, it brings the subject before us of the best mode of keeping such a stock in as little space, and cheapness, as possible. Frost and damp are the things to be guarded against; therefore a cold pit, whose bottom is half a yard deep of brickbats, or some similar absorbing material, is indispensable to success; a wooden frame must be laid over that substratum, upon which the pots can be placed, or a layer of cinders upon the brickbats, and over it somewhat finer ashes to allow the pots to be placed even. There must be provision made to admit a free supply of air by ventilation at the front and back, at which openings rain will not be admitted.

If a pit be kept in a wet state, frost of course is more powerfully operative there, but to keep it dry the contrary. If there be the provision of a small fire-flue along the front, just to heat the pit for an hour or two when occasional damp prevails, it will be found very serviceable; but it ought only to be heated in the seldom cases named. A small metal stove pipe passing along the front will do quite as well as a brick flue. All possible air, I repeat, when dry must be admitted. Watering must be done sparingly; only be applied when absolutely necessary, and never apply it over the foliage. When the pit is to be dried by applying a little fire heat, take care to allow an opening at the back of the pit for the damp to escape, for if kept closed, it will only pass into the sides and ends, and on withdrawing the heat be as damp as before. If no fire flue provision, then the dampness must be remedied by admission of air.

ON THE DOUBLE ROCKET.—It now being the time for increasing this lovely sweet-flowered plant, so well meriting a place in every flower garden, I am induced to state the plan which I have for many years pursued to perpetuate so charming a plant. As soon as the plant ceases blooming, which varies a little, from the early part of August to the end thereof, I cut off the shoots, and in dry weather take care to water the plant; this induces the production of offsets. As soon as I find, by examination in the soil, that they are rooted, which is by the end of September or early in October, I separate them from the parent plant, put them three or four in a pot, or if small-sized pots, one in each; place them in a frame to get them established before winter sets in. I keep them in

a cool but dry frame pit through winter, and turn them into the open bed the end of March following. By this treatment I keep a constant supply, and having a rich loamy soil, on a dry subsoil, I grow them vigorously. I have the double white and double purple kinds.

CLERICUS.

NOTICES OF NEW FLOWERS.

FUCHSIAS.

W. DAVENPORT.

No 1. is a good formed flower, with a rich crimson tube, rose sepals, and deep violet corolla, handsome, but too much like others out.

No. 2, lilac tube, pink sepals, much reflexed; corolla rose. A large fine flower, well deserving cultivation.

ANON.

A, very light tube, nearly white; sepals pink, much reflexed; corolla rich rose. A very beautiful flower.

B and *C*, rich red tube and sepals; corolla crimson. Large flowers, but not distinct enough from kinds already out.

A KENT MAN.

No. 3, pink tube, and sepals same colour with white tips; corolla rose. Very distinct and pretty. The others 1, 2, 4 and 5, are like other kinds out.

REV. A. BRECKON.

Seedling. Flesh-coloured tube; sepals flesh with white tips; corolla rosy-red. A very distinct and beautiful flower.

CALCEOLARIA.

J. BARKWAY, EAST DEREHAM.

Your seedling of 1843 is a large and very beautiful flower, the rich markings in contrast with the clear ground colour render it strikingly distinct. The only defect from perfection in form is two small indentations at the lower part of the flower. It would be an acquisition to any collection.

DAHLIAS.

C. HIBBERT, PAISLEY.

No. 1. Bright yellow, fine-cupped petals, crown up, and of regular form. A deep, round, fine-formed flower.

W. GOWIN, NORWICH.

Seedling. The flower is large, but the petal is defective in form, and flimsy in its character. It is not of sufficient merit to be sold out.

LUCY.

No. 1. The tipped seedling sent is a very fine flower of its class. Ground colour rich red, tip a clear white, cupped, and well up in the centre.

No. 2. White ground with yellow edges; a beautifully distinct flower; the only deficiency is, the petal is rather flat.

VERBENA.

W. B.

Seedling. A beautiful rosy-vermilion, large heads, and the most fragrant one we have had in our possession. Its vigorous growth, with the profusion of flowers, give it additional recommendations.

R. STANFORTH.

No. 1.—Rich red, yellow eye, fine truss, but not much different from others out.

FLORICULTURAL CALENDAR FOR NOVEMBER.

All greenhouse plants should have a free supply of air admitted, except when it is frosty. The plants should not be watered in the evening, but in the early part of the day, so that the damps may be dried up before the house is closed, as they are, during the night, prejudicial to the plants. The soil in the pots should frequently be loosened at the surface to prevent its forming a mossy or very compact state. The plants must not be watered overhead. *Luculia gratissima* is the finest ornament for the greenhouse and conservatory, now and through the winter.

The plants of the Cactus that have been kept in the open air during the summer may be brought to bloom successively by taking such as are desired to bloom immediately into the heat of a forcing pine-house. Other plants, to bloom afterwards, should be kept in a greenhouse protected from the frost.

Plants of the *Calceolaria* that have been grown in the open borders during the summer months, and now taken up and potted, should be kept in a cool frame, or cool part of the greenhouse, being careful not to give too much water; just sufficient to keep the soil moist will only be necessary. Offsets will be found rooted; take them off and pot them.

Dutch bulbs, &c., may be successfully planted this month. See articles on best modes of the culture of each, in former numbers of the *CABINET*. Many persons who take a delight in growing some showy Hyacinths or other bulbous plants for adorning a room or window, &c., 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, &c.; 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. This or some similar light material should always be used. Even bulbs intended to bloom in glasses we prefer starting in the old bark, and then transferring them to the glasses when the shoots are about two inches long. Where such covering is not adopted, it is of advantage to have the pots or glasses kept in a dark place till the shoots are two or three inches long.

Plants of some of the *Chrysanthemums* that are grown in pots and taken into the greenhouse will be found to have pushed a number of suckers. If the offset are wanted for the increase of the kind, it is advisable to pinch off the tops, so as to prevent their exhausting the plant to the weakening of the flower. If the 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 flowers, 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.

Dahlia seeds 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 seeds 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, canvass, wicker-baskets, &c.

Tubers of *Commelinas*, and bulbs of *Tigridias*, should be taken up and preserved dry through winter.

Shrubs, deciduous or evergreen, may now be successfully planted. If in exposed situations they should be secured to stakes.

Herbaceous border plants may still be divided and re-planted.

Roses, Persian Lilacs, &c., for forcing, should now be gently forwarded, if required for bloom by Christmas. Straw or reed hurdles ought now to be prepared for covering frames, &c., in the depth of winter.

Achimenes, withhold water from till February.



1 *Meruliosus speciosus* 2 *Abutilon vitifolium*?

Horticultural Cabinet, Dec. 1844



1. *Petunia Nixonii*. 2. *Ipomoea Hardingii*

Floricultural Cabinet, December, 1844.

THE
FLORICULTURAL CABINET,

DECEMBER 1st, 1844.

PART I.
EMBELLISHMENTS.

ARTICLE I.

PTERODISCUS SPECIOSUS.

THIS is another beautiful flowering plant, which has been introduced into this country by the Earl of Derby, and has recently bloomed in the collection at Knowsley Park gardens. It is a native of the interior of Southern Africa, and has been grown in the plant-stove at Knowsley. The root is tuberous, producing numerous branching shoots, which bloom very freely. It is a valuable acquisition, and deserves to be in every situation where it can be grown. It will be one of the prettiest plants for exhibition at the shows. Mr. Jennings speaks very highly of its beauty, and informs us it blooms in the early summer months.

ABUTILON VITIFOLIUM.

We received a specimen of this fine flowering shrub from our friend Mr. Taylor, of Dublin, who informs us that it there grows and blooms profusely in the open border, without any winter protection. It is a native of Chili, and from a packet of seeds sent us from thence we raised several plants. We kept it in a greenhouse, and it appears likely to require such protection in the colder parts of this country. It is, nevertheless, a likely plant to be inured to the open air, and become a striking companion to the various kinds of *Althæa frutex*. It deserves to be grown wherever practicable.

ARTICLE II.

ON DESTROYING THE BROWN SCALE, AMERICAN BUG, &c.

BY ELIZABETH.

ON reading the directions given in a recent number of the *CABINET*, that to cover over an infected plant or tree with a coating of liquid mud I tried on some stove and greenhouse plants, as well as an apple-tree in my garden, and I find it answer everything I could wish. I found, whilst it soon suffocated the insects, it did not injure the plants in the least. I had it washed off the plants in a fortnight after applying it, and now they are flourishing finely.

ARTICLE III.

ON A SUBSTITUTE FOR PEAT, AND GRAFTING FUCHSIAS.

BY SCOTUS.

IN answer to the query of *Lincolnsis*, in the *FLORICULTURAL CABINET* for July, "Can any of your correspondents inform us if there is any efficient substitute for peat?" I beg leave to refer him to a pamphlet written by Mr. William M'Nab, the Superintendent of the Royal Botanic Garden of Edinburgh, published by Thomas Clarke, Edinburgh, in 1831, entitled "Hints on the Planting and General Treatment of Hardy Evergreens," where he will have an answer to his query. Mr. M'Nab is one of the best practical gardeners of the present day, and his opinions are entitled to full confidence. I send you an extract from it:—"In many places pit sand and vegetable mould, that is, the earth produced from the decayed leaves of trees or other vegetable substances, or even rotted hot-bed dung, with sand, will answer equally well, and can often be got in abundance, where peat earth is scarce and expensive." He says also,—“In good hazelly loam, without any mixture whatever, *Rhododendrons*, *Kalmias*, &c., will grow and thrive perfectly.”

I formerly sent you a communication regarding the inarching *Fuchsia fulgens* upon *F. Riccartonia*, by Mr. Mercer, at Craufurd Priory Garden, in which he succeeded perfectly. I may now mention that in the spring of this year I grafted two plants of it upon *F. Riccartonia*, by the common method of whip-grafting, and that they

both appeared to be succeeding well; one of them, however, I lost by taking off the bandage too soon, although not for about two months after the operation; the other one, however, is still flourishing, and showing flowers, which, however, are much smaller than those of *F. fulgens* on its own root. The plant has formed a fine head, and appears very thriving. The operation is simple and easily performed, and although the graft seems slow in uniting, does not seem likely to be unsuccessful, and it may be desirable in many cases.

ARTICLE IV.

ON PREPARING LAYERS AND PIPINGS OF CARNATIONS AND PINKS.

BY MR. T. CONNELLY, FLORIST, OF PRESTON, IN LANCASHIRE.

As the time of year is at hand for this work I beg to offer a few remarks, which I hope will be of some use to my brother florists. It is quite true that much has been said from time to time in the CABINET and other works, still, I trust, that fourteen years practical experience in such matters should be worth something, and not be altogether useless. Some years back, when the late Mr. Loudon was on his tour into the north, he called at our nursery, in Lancaster. I was then (the end of July) busy laying Carnations. At that time we generally bloomed about 800 pots of the best sorts. He found me at work, cutting off the tops of the layers. He asked me what I was so cutting them for; the only answer I had to make was, that my father did so before me. He pointed out the danger, and loss of time, and added, that they would root much better by leaving the tops on; and before he left, advised me to try some for my own experience in the matter, and which was done. By the end of September, I began the work of taking off the layers, and must candidly confess that I was much surprised to find those that were not cut much stronger and better rooted than the others. The next, and following years, I practised the same with PINKS, but instead of cutting away the tops of the pipings only the bottom grass was removed, and I found by the autumn that I had, as with Carnations, better and stronger than on previous years, when they had been topped and cut. Those persons who have been accustomed to cut them in the way I

previously did may find it difficult, as it was with me, to leave it off ; but the mode I now recommend once tried, they will find it much to their satisfaction, have better plants, and with less trouble. It would be almost needless to say anything on the compost best suited for them, as every general Carnation and Pink grower has his favourite mixture. I advise, however, wherever practicable, not to grow them more than once or twice in the same compost, a change is indispensably necessary to success. In my next, I will throw out a few hints on the taking off seed, which should be carefully attended to ; it is of great value, particularly from the Lancashire sorts, and the London seedsmen will give almost any price for it, particularly if it can be warranted not mixed with any other, especially avoiding any but north country flowers.

I perceive by the last number of the *CABINET* that Mr. Ibbett is again in the field, and appears to be somewhat out of good temper. He sweeps all the Lancashire Pinks away at one dash with his pen, as entirely useless, and not worth cultivation. He and his friend in Northumberland, will have some difficulty to persuade the florists and their customers of the propriety of acting in accordance therewith.

ARTICLE V.

REMARKS ON THE RHODODENDRONS.

BY A NURSEYMAN.

OBSERVING that Rhododendrons are thought to seed themselves in woods but sparingly, I beg to inform those who wish to cultivate such plants that where they are grown in woods they are sure to sow themselves by tens of thousands. In the woods here we have, by a little attention, thousands of self-sown seedling *Rhododendron ponticum*, growing on any kind of soil excepting stiff clay. I find a strong soil answer better for seed than a light soil in woods, because it retains moisture in a dry season, and the small plants survive the hot weather without artificial watering. We adopt the following system in the culture of Rhododendrons in woods, which has taken place on a most extensive scale :—After a tree is cut, the stump is grubbed up, and the hole is prepared by breaking up the bottom, and widening

it; leaves are then raked up and mixed with the soil until the hole is filled above the level; a plant is then inserted, and soon makes a most beautiful bush, seldom injured by either domesticated or wild animals. *Rhododendron catawbiense* and its varieties are far more beautiful than *ponticum*, and therefore should be planted near walks and the margins of woods; it is also one of the best to cross the *Nepaul* kinds upon, to obtain hardy varieties, which are mostly very beautiful. When in bloom, nothing can surpass the beauty of *Rhododendrons* in woods; last year the woods here were quite enchanting with them. It is very easy to fill woods with them by sowing the seed broad-cast, where it is desirable to have them. As soon as the capsules burst, which is about the present season, I collect the seed by shaking the boughs, placing a large sheet of paper beneath. A man and a boy can collect enough to sow acres in a few hours where plants are plentiful; a calm day should be chosen for the operation, which should be done as soon as possible after the capsules burst, and the seed should be sown immediately, *Rhododendron maximum* grows much better in shade than in sunny situations; the foliage is often four times the usual size, and of a much finer green; *R. maximum* seems to prefer loam, mixed with a great portion of leaves raked up and used immediately by mixing with the soil. Any one desirous of planting underwood, cannot find a more desirable plant than *Rhododendrons*, on account of their being evergreen, and forming large masses, having a delightful appearance in the most dreary winter.

ARTICLE VI.

REMARKS ON PLANTING RANUNCULUS, ANEMONE, HYACINTH, AND OTHER KINDS OF ROOTS, IN THE OPEN BORDER.

BY MR. LOCKHART, FLORIST, &c., CHEAPSIDE, LONDON.

FAILURES and disappointments in their flowering chiefly arose from the fact that amateurs, and sometimes professed gardeners, plant them too late and too shallow.

No flower root, however small, ought to be planted less than four inches deep, with the exception of the *Ranunculus* and the *Anemone*, and for the following reasons:—A flower root at four inches deep is less liable to be affected by every change of weather than one planted two

or three inches deep, consequently its vegetation continues with less interruption, cold weather does not so easily check its growth, or warm weather excite it prematurely. It comes on with its own peculiar season, and flowers at its proper time. By planting early it makes good roots, and is thus better enabled to withstand adverse weather. As a general rule, large flower roots, such as the Crown Imperial, Hyacinth, Lily, and Narcissus, should be planted six inches deep, and not less.

Nothing is more simple and easy than the cultivation of the Ranunculus and the Anemone. Both ought to be planted as early in February as possible; but the beds ought to be prepared for them in November, as they do not succeed well in fresh-dug soil. Do not make composts, avoid them; but manure the common soil of the garden well, whatever that may be. The Ranunculus must be planted an inch and a half deep; the Anemone, two inches deep. Top-dress them within a week after planting (particularly when the soil is light and sandy, or where it soon becomes dry) with one inch thick of old manure, such as the remains of a Cucumber or Melon bed.

Failures in the flowering of the Ranunculus and the Anemone are nearly always owing to too artificial treatment. Admirers of these very ornamental flowers should bear in mind that they bloom in the hottest and driest months of the year, and being planted near the surface, the soil soon dries out to their roots; that the best way, therefore, to retain a proper quantity of moisture to carry out their growth, or to prevent too great evaporation of the ground, is to top-dress them, as already described.

Numerous noblemen and gentlemen have visited our Nursery at Fulham this season, and have confessed the collection to be perfectly unique, and have admired the simple and successful treatment of the various kinds.

ARTICLE VII.

OBSERVATIONS ON THE CULTURE OF LESCHENAULTIA FORMOSA AND BILOBA.

BY C. C. OF SOMERSET.

HAVING frequently seen plants of *Leschenaultia formosa*, and *L. biloba*, go off in the winter season, and according to my own experience, proves there must be some mismanagement, for in numberless

instances they do not even survive the first winter. By proper culture, however, it can be grown to a large size, as much as from three to five feet high, and as much round, covered with a mass of bloom. In this state nothing can be more beautiful, and this may be accomplished by practising the following rules:—Having procured some healthy plants, be very careful not to give them any check; place them immediately in the greenhouse, as near the glass as possible, and give them moderate waterings. They should be potted very carefully at all times, as soon as they require it. Success depends, in a great measure, in the compost prepared for them, which should be of the following materials, well mixed together:—Take equal parts of heath mould, leaf mould, and good rich loam; and then add a fourth part of charcoal, lime rubbish, and small bits of broken pots; mix all well together, and be sure to give a good drainage at the bottom of the pot. The *Leschenaultias* require but moderate supplies of water in the winter, but as the season advances give it more freely. These plants should be always kept in the greenhouse, giving them a good supply of air when the weather is favourable. If these few hints should be the means of preserving any of those most beautiful plants from an early death I shall be highly gratified, and the end would be fully answered for which I forward them.

ARTICLE VIII.

REMARKS ON SEVERAL FLOWERS.

BY RISEMARA, OF SUFFOLK.

BEING a new subscriber, I am desirous of paying a tribute of acknowledgment to the usefulness of your periodical; for although possessed of a valuable botanical magazine from its commencement, and which is still continued, I found I could not succeed in cultivating flowers to the wished-for success, without also having the *FLORICULTURAL CABINET*; and as I observe that notices of plants are acceptable, I wish to mention that the effect of large masses of the purple and white *Honesty* in groves is exceedingly imposing. This early flower blooms before the leaves are expanded on the trees, and the brilliant hues of the purple, with the delicate tints of the white flowers, form at the early period of the year a sight of uncommon beauty, as may be wit-

nenced in the spring at Felixstow, in Suffolk, in a wood belonging to the marine residence lately owned by Sir Samuel Fludyer, and formerly planned and ornamented by the celebrated General Thicknesse, Governor of Landguard Fort.

I have a few queries to put respecting several subjects connected with Floriculture, and I shall be obliged by their appearing in the CABINET.

I have been growing a bed of Virginian Tobacco, which I am told is the right sort to use for fumigation, but I am quite at a loss how to prepare it for the purpose; it is now in flower, if any of your readers can give me directions, I shall feel much obliged; also if they can recommend me the best instrument for directing the fumigation to any plant requiring to be freed from insects; also the most approved syringe for sending water to plants, vines, &c., in a greenhouse, and where the foregoing articles can be obtained.

I have tried to cultivate Babianas in my greenhouse, but they did not flower, can they be managed successfully by only a greenhouse and hot-bed?

I am disappointed in the effect of the new annual *Didiscus Cœruleus*, for which I paid one shilling for a packet of seeds—it grew so straggling in a pot in the greenhouse, and out of doors its blue was not brilliant; could it be grown more compact, it would form a beautiful ornament to a greenhou in summer; any information on this subject would oblige.

ARTICLE IX.

ON THE TAMARISK, OR TAMARIX.

BY FLORA.

“ On yon rough craig,
Where the wild tamarisk whistles to the sea blast.”

H. DAVY.

THIS beautiful flexible shrub, highly ornamental for the shrubbery, is the *Myrica* and *Tamarix* of the Latins. This latter name is supposed to have been derived from the Hebrew *Tamaris* (*abstersio*), on account of its abstergent qualities. It was a celebrated medicinal plant with the ancient Arabians, from whom the Latin authors seem to have borrowed their knowledge of the virtues of this plant; and

the high encomiums which these Æsculapian writers bestowed on the Tamarisk induced Grindall, Archbishop of Canterbury, to introduce it into this country, as a specific in disorders of the spleen. Camden, in his *Life of Elizabeth*, notices that the Tamarisk was first brought into England by Archbishop Grindall; and in the *Remembrances for Master S.*, by Richard Hakluyt, 1582, we are told, likewise, that “when this archbishop returned out of Germany he brought into this realm the plant of Tamariske from thence, and this plant he hath so increased that there be here thousands of them, and many people have received great health by this plant.”

Dr. Turner writes fully on this plant, in his *Herbal* that was published in 1568, when it appears to have been unknown in this country; for he observes, “It may be named, in English, Tamarisk, because, as we want the bushe, so also we have no name for it in England.” This author tells us, that he “saw it in diuerse landes in Italy, in an yland betwene Francolino and Wenish, in Germany, in diuerse places about the Ren, not far from Strasburg; and in Rhetia, in a stony place, som tyme of yeare used to be ouerflowen with the Rhene.”

Gerard notices that it grows in Germany, Spain, Italy, and in Greece, and he tells us that both species of this plant grew in his garden in 1596.

Later botanists mention it as a native plant, because Mr. Giddy and W. G. Mason, Esq., found it growing on St. Michael's Mount, Cornwall, in the year 1794, as also near Hurst Castle, Hants; and Dr. Goodenough saw it near Hastings in Sussex, but this is by no means satisfactorily proving it to be indigenous to our soil, as in all probability it sprang from cultivation in the two latter places, and from some accidental circumstance on the former spot, for it is of so easy propagation that the least sprig of it will often take root when thrown on the earth, and its not maturing its seed in this country is a sufficient proof of its foreign origin.

The Tamarisk has been frequently celebrated in the verses of the ancient poets. Homer mentions it as the tree against which Achilles laid his spear before he plunged into the Xanthus, to pursue the routed Trojans. It is introduced in the *Pastorals* of Theocritus, and Virgil has noticed it several times in his *Eclogues*. Its name may also be found in several passages of the poems of Ovid.

The Romans considered it an accursed plant, and frequently speak of it as the unhappy Tamarisk, as it was used for wreaths to put on the heads of criminals. But as a remedy for diseases of the spleen it was considered of such efficacy that drinking-cups were made out of this wood for those that laboured under this complaint, and the physicians ordered their patients to eat out of dishes formed from Tamarisk wood.

The magicians used it to impose upon the credulous by their pretended magical powers, and they ascribed qualities to this plant too much against common reason and decency to mention. Pliny mentions its use for besoms amongst the Romans.

It is found abundantly on the mountains of Dauria and Caucasus in the Russian empire, and the Russians and Tartars use a decoction of the twigs in the gout and rheumatism, and contusions of the limbs, as a fomentation; they also drink it in case of internal injury. They make handles for whips, &c., of the wood.

Dr. Smith remarked this plant in great plenty in Italy about Sinigaglia, and all along the hedges near the sea, where the sheep preferred it to every other food, never touching any other vegetable while that remained. It grows plentifully also on the coast in Algiers, as well as in Japan. In some places it grows to a tree of middle size, but in England it remains as a shrub, seldom exceeding three yards in height.

The Tamarisk thrives in bleak situations by the sea-side, where most other trees and shrubs are cut off by the blast, for the branches of this plant are so pliable that they bend without resisting the slightest gale, thus reminding us of the fable of the reed and the oak, or the lines of Hurdis:—

“ And so the storm,
That makes the high elm couch, and rends the oak,
The humble lily spares. A thousand blows,
That shake the lofty monarch on his throne,
We lesser folks feel not. Keen are the pains
Advancement often brings. To be secure,
Be humble; to be happy, be content.”

We have few shrubs more graceful than the Tamarisk, its slender branches being covered with a chestnut-coloured bark, and garnished with very narrow leaves, lying over each other like the scales of fish,

and of a fine bright-green colour. This plant is in appearance between the cypress and the common heath. Its flowers appear in July, and are produced in taper-spikes at the ends of the branches; they are very small, and set close all round the spike, of a lilac colour, with red anthers. These are succeeded by oblong, acute-pointed, three-cornered capsules, filled with small downy seeds.

When planted in the shrubbery the Tamarisk should mix with plants of broad and fixed foliage, as the laurel or holly. It is also calculated to cover the sides of hills, where it is desirable not to take off the view by taller trees; but its principal advantage over most other shrubs is in marine gardens, where it soon acquires sufficient height to protect rose-bushes and other low flowering shrubs. The Tamarisk is a deciduous tree, although when in foliage it has all the character and appearance of an evergreen shrub.

ARTICLE X.

REMARKS ON WHITNEY'S PREPARED CALICO.

BY MR. CHARLES SHAW, OF WORSBRO' HALL, NEAR BARNSELY.

SEEING an inquiry in the CABINET of last month, page 247, relative to Mr. Whitney's prepared Calico, &c., I beg to add the result of an experiment which we tried during the past summer at this place.

About the middle of May we had a fig-tree out of doors which showed a nice crop of fruit, but it stood in rather a cold situation. I was very desirous of ripening the fruit, and from what Mr. Whitney had said of his composition when applied to Calico, &c., I judged a covering of it would just be the thing to aid me in realising my wishes.

I therefore procured two quart bottles of the composition, and eighteen yards of glazed Calico, which just covered the tree. After the Calico was cut in proper lengths and hemmed together, I had the outer edges bound with strong tape binding, to prevent the Calico tearing, and preserve the whole entire. When thus completed it was taken into the coach-house, very tightly stretched against some rafters, and then well saturated with the composition, applying with a painter's brush. It was then left for several days to dry.

I had some strong rafters of wood placed over the tree at two feet

apart, and three feet from the wall, so as to admit of a person walking under the cover. The prepared Calico was then stretched over the surface, and being firmly secured to the rafters had a very neat appearance. The next and two following days we had strong wind and rain, which threatened the covering with destruction, we therefore, as a preventative, nailed several cross-bars over the surface, but with little benefit, as the sequel will show. The covering remained over the tree about two months, during which period we had anticipated that the fruit would have made great proficiency in growth, whereas they had diminished all away at the expiration of that time. The covering being removed from the tree, it was found to be as tender as thin brown paper soaked in water, and the entire not worth one farthing.

I beg too to observe, that the foliage of the tree after its removal, strong as it usually is, had turned quite brown, although there was an abundant circulation of air through the interior space, admitted by the top and bottom openings.

It appears, as has been remarked, that it requires a much stronger material than the glazed Calico in order to answer the desired purposes, and it is even then questionable whether it will answer the end in view by those who may adopt it.

REVIEW.

Observations on the Cultivation of Roses in Pots, by W. Paul; Nurseries, Cheshunt, Herts. Published by Sherwood, Gilbert, and Piper, Paternoster-row, London. pp. 32.

THIS is a neat, interesting, and useful little publication, on a very pleasing subject. The author has given a minute detail of his practice, throughout the various stages of culture, in a very clear and definite manner, and a list of the preferred classes of roses, with observations on each, as well as a descriptive list of each kind of rose. It is well worth the attention of all rose fanciers, and ought to be procured by them.

We extract the following particulars, that our readers may be able to judge more satisfactorily of the merits of the work:—

“APTITUDE OF ROSES FOR POT CULTURE.

“ It appears somewhat remarkable that the idea of growing Roses in pots should not have been earlier adopted. A more magnificent genus of plants, possessed of such a combination of rare qualities, scarcely to be met with in any other, and one with regard to which the cultivator has so great a scope to exercise his skill and taste, could not be desired. If a continual succession of flowers be an estimable character of plants intended to be grown in pots, the Rose has a decided claim to our attention. If variety of colour (from white to yellow, red, or purple, with various intermediate shades,) be sought for, it is found here. If scent be valued, the Provence, Perpetual Tea-scented, and other classes, establish a claim on this point also. Their foliage, too, and general appearance is elegant; and, in fine, from the flexible nature of the young shoots, they admit of being fashioned into any form the fancy of the cultivator may suggest.

“ *Duration of Bloom.*—An argument that has been advanced to prove Roses are not well suited for growing in pots, and can never become first-rate exhibition plants, is that the flowers fall so soon after expanding. This must be in part allowed; but it must also be remembered that this is not the case with all varieties, and the autumnals are almost continually in bloom; for, as the first flowers drop away, others open around them; and many kinds may thus be kept in bloom, out of doors, from May till November; and, if we include in-door culture, by forcing in winter and protecting in autumn, we may have Roses in bloom nearly the whole year round. But it may appear that this continual flowering of the autumnals will eventually exhaust the plants, and cause the flowers produced late in the season to be poor and thin; but these, though often smaller than the early ones, are frequently the finest formed; and, by watering the plants occasionally with liquid manure, the disparity will be but trifling.

“ *Advantages of growing the tender kinds in Pots.*—There are many advantages, when plants are grown in pots, of which we are not able to avail ourselves when they are growing in the open ground. With regard to the tender varieties of Roses, these are very great, if we only take into consideration the facilities afforded of protecting them from frost and heavy rains, by means of pits; and it is not sur-

prising to find they thrive so much better under glass than when exposed to all the changes and severities of the weather. The hardy kinds, however (except a few be introduced by way of varying the colours to a greater degree), certainly need not to be grown under glass; they merely require plunging; and an airy yet sheltered situation in the garden should be chosen.

“*Suggestion for growing Tea Roses near London.*—Hitherto the Chinese and tea-scented Roses have not been grown with much success in the immediate neighbourhood of London, nor in the north of England, when planted in the open ground. It is notorious that no collection, however small, can be complete without some portion of these Roses; and it is the vexatious disappointment alone, attendant upon their constant failure, that could have caused their growth, in certain localities, to have been given up. Doubtless, in some instances, an impure atmosphere may have caused their failing; but I humbly submit whether, if carefully examined, the soil and situation would not often propound the difficulty. The ease, then, with which we can remedy these disadvantages, when the plants are grown in pots, leads me to propose their cultivation in this way to those with whom they have not hitherto succeeded; and there is good ground to believe they will succeed well in this manner, and especially if grown under glass. Except for forcing, cold pits are perhaps preferable to a house, where they should be kept close to the glass, and plenty of air given. They should have the advantage of dews and soft showers, the lights in summer being merely used to protect them from cold nights or rough weather, and, by help of mats or canvas, from a hot sun.

“*Methods of Growth.*—Among Roses there are two distinct kinds of plants—worked plants (comprising the budded and grafted ones), and such as are grown on their own roots. Both succeed well in pots; the former, perhaps, produce the finest flowers, but should be grown on very short stocks; the latter form large and handsome plants. The greater part of the plants should be grown to bloom in the natural season, from May till November; the others, as forced Roses, blooming from March to June, which will be more particularly alluded to hereafter.

“*Transplanting and Potting.*—Early in autumn, immediately after rain, is the most favourable time to remove both worked plants

and others from the ground; and such as have grown moderately, with well-ripened wood, should be chosen. The sized pots best suited are Nos. 32, 24, 16, and 12, according to the size of the plant; and they should be well drained. In potting, the soil should be pressed firmly in the pots, watering freely afterwards, through a fine rose, to settle the soil about their roots. The cultivation of the autumnals on their own roots may be commenced at any season, as they are usually kept growing in pots. If purchased in spring, in 60-sized pots, they may be immediately shifted into 48's, then plunged and watered continually, as required. Our aim being to get the plants strong, they should not be suffered to flower; and we should endeavour, through the growing season, to bring them to form a few vigorous shoots in preference to a greater number of weak ones. To accomplish this, it is advisable to rub out some of the buds when first pushing, but keeping in view the handsome formation of the plant. The plants may be shifted on through the season, and in the following spring we shall probably find them in 16 or 12-sized pots, preparing for a vigorous growth and bloom.

“ *Thinning out.*—When potting, all suckers should be cut out from the worked plants, and straggling shoots shortened back to within a few eyes. Where too thick, some of the shoots may be cut out entirely. From three to ten, according to the age or growth of the plant, being in most cases sufficient. Thinning in summer, immediately after flowering, is very beneficial. The best-ripened shoots should be left, and such as stand in the best position for the well forming of the plant. The shoots left may be shortened in November and March; some at both periods, to obtain an early and late bloom.

“ *Soil.*—The soil in which I have found them succeed well, and have generally used, is two parts of fresh 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.

“ *Protection.*—After potting, the plants taken from the ground

should be removed to a cold pit, syringing and shading, if sunny weather, for a week or ten days. Here they soon form fresh fibrous roots, and scarcely feel their removal. It will be well if the tender varieties can be allowed to remain in the pit during winter, at which season they require scarcely any water; otherwise they should be removed to the north side of a wall or fence, and a thatch of fern, or beech boughs with the leaves on, formed; or any other mode of protection that can be more readily devised, to secure the plants from rain and frost. Indeed, it is clearly evident that the rains of autumn as seriously injure the delicate-rooted Roses as the frost in winter; for, during the mild winters of 1842-43, many of them died, which was doubtless owing to their receiving too much moisture in autumn, whereby the roots perished. Thus, then, the tender varieties may be protected from injury during winter, and the hardy ones may be removed from the pits about a month after being potted, and plunged at once in the open ground where intended to be grown and flowered.

“*Pruning.*—About the middle of November pruning may be performed, in order to effect an early bloom. The plants having been thinned out previously, all that is now required is the shortening in of the remaining shoots. It is a difficult matter to lay down any precise rules with regard to pruning, upon the judicious adaptation of which depends not only the well forming of the plant, but, in a great measure, the perfection of bloom also. In order to prune Roses with certainty of success, we ought to know the character of each plant we are about to operate on, for Roses of the same class oftentimes require very different pruning. The best criterion we can offer is, perhaps, habit of growth. Among the Hybrid Chinese, the two favourite old Roses, *Brennus* and *Fulgens*, both vigorous growers, frequently occasion great disappointment by not blooming. The failure will probably be found to arise from the method of pruning. These Roses, and others of like habit, should be well thinned out, but the shoots that are left for flowering shortened but little. Others of the same class (Hybrid Chinese), that are weak growers, may be shortened in close; such are *General Allard* and *Lady Stuart*, two beautiful and well-known Roses. There are also varieties of intermediate growth, which may be pruned in proportion. The classes *Gallica*, *Provence*, and *Moss*, may be pruned closer than the Hybrid Chinese. The autumnal Roses there is but little fear of pruning out

of bloom; early or late, they are sure to flower. These, when grown on their own roots, should be cut down almost close to the ground, to induce them to throw up suckers from beneath, which will grow much stronger than shoots formed above ground, and flower beautifully through the summer and autumn. One point, too, should be borne in mind, that Roses, when grown in pots, may be pruned closer than when grown in the open garden. Last season I shortened back the shoots of the autumnals, Gallicas, and Provence, to within from two to four eyes; and, what with thinning and shortening, the plants looked very naked, and at first sight appeared to many to have been cut too much. But when considering that each of the remaining shoots would produce three or four, and that the plants were not in the open ground, but in pots, it was evident such was not the case; and this their after-growth and flowering fully confirmed. Some of the Hybrid Chinese, and other strong growers, were pruned close in proportion, leaving from three to six eyes on a shoot; and though the plants were young, and consequently small, their blooming, both as regards the size and the abundance of flowers, was all that could be wished.

(*To be continued.*)

PART II.

LIST OF NEW AND RARE PLANTS.

ANECTOCHILUS SETACEUS. THE FRINGED FLOWERED. (Bot. Mag. 4123.) Orchidaceæ. Gynandria Monandria. A native of the damp woods of Ceylon. It has bloomed in the Royal Gardens at Kew; kept in the stove and covered with a bell glass, it recently flowered vigorously. The habit of the plant is that of a *Goodyera*. The distinct hue and marking of the leaves are exquisitely beautiful. They are of a rich velvety green, tinged with copper, and over that it appears like golden net-work spread thereon. The lower side of the leaves is of a reddish colour, having dark yellow veins. The flower stem rises eight inches high, and each plant has several of such. The flowers are produced in short terminal spikes. Each blossom is about half an inch long, and the same across the front thereof; white, tinged with red.

ANGULOA UNIFLORA. ONE-FLOWERED. (Bot. Reg. 60.) Orchidaceæ. Gynandria Monandria. A native of Peru, which has been imported by G. Barker, Esq., of Springfield. The plant has the habit of a *Lycaste*. The flower stems rise about nine inches high, each producing a single blossom, white tinged with yellow, about two inches and a half across. The plant is sweet scented.

ARISTOLOCHIA ORNITHOCEPHALA. BIRD'S HEAD BIRTH-WORT. (Bot. Mag. 4120.) Sent to the Glasgow Botanic Garden by Mr. Gardner, from Brazil. It has bloomed in the stove at the Glasnevin Botanic Garden, and proves to be a climbing shrub, with large heart-shaped leaves. The flowers are produced singly, each being about six inches across, of a dingy yellow, marked with netted

lines of deep purple. The inflated tubular portion resembles a bird's head and beak. It is singularly pretty.

CHIRITA SINENSIS. CHINESE CHIRITA. (Bot. Reg. 30.) Cyrtandraceæ. *Didynamia Angiospermia*. Sent from China by Mr. Fortune, to the garden of the London Horticultural Society. It is a charming little greenhouse plant, requiring the treatment of a *Gloxinia*. The flower stems rise about five or six inches high, each having two or three blossoms. The flowers are fox-glove formed, of a beautiful lilac colour; a separate blossom is about two inches long. It is a very pretty and interesting plant, well deserving to be in every greenhouse. Mr. Fortune has been sent to China by the Horticultural Society, in order to collect plants.

ECHINOCACTUS PENTLANDI. RED-FLOWERED. (Bot. Mag. 4124.) *Cactæe Icosandria Monogynia*. In the collection at the Royal Gardens of Kew. It is of a globular form. The flowers are about two inches long, of a rose-red colour.

GESNERIA GARDNERI. MR. GARDNER'S. (Bot. Mag. 4121.) *Gesneriaceæ*. *Didynamia Angiospermia*. Mr. Gardner found it on the Organ Mountains of Brazil, growing in rocky places from two to four feet high. It has bloomed in the College Botanic Garden, Dublin. The stems grow erect, herbaceous, branching. The leaves are very thick and fleshy, pale coloured, in form much like those of an elm. The flowers are produced singly, one from the axil of each leaf. Corolla is tubular, about an inch and a half long, of a bright rosy-red colour. It is a very distinct and handsome species.

HOVEA ILLICIFOLIA. HOLLY-LEAVED. (Bot. Reg. 58.) *Leguminosæ*. *Diadelphia Decandria*. A native of the Swan River Colony, and has bloomed in the fine collection of Robert Mangles, Esq. It is a neat and interesting greenhouse shrubby plant. The flowers are rather small, of a deep violet-blue, with a white centre. It deserves a place in every greenhouse.

HYDRANGEA JAPONICA. JAPAN HYDRANGEA. (Bot. Reg. 61.) *Saxifragaceæ*. *Decandria Trigynia*. A native of Japan, in which country Siebold states there are thirteen other kinds, one of them *H. Belzonii*, has the habit of our common hardy shrub, *H. arborescens*, but has blue flowers. Another kind, *H. stellata*, has double flowers of a pink or light blue. The present species is a hardy shrub, requiring the same treatment as the *H. hortensis*, so generally grown in this country in dwelling-houses and flower borders. It grows about two feet high. Siebold states there are two varieties, one with rose-coloured flowers, and the other with blue. The one in this country is white, tinged with rose.

IPOMŒA HARDINGII. MR. HARDING'S. (Pax. Mag. Bot.) *Convolvulaceæ*. *Pentandria Monogynia*. An hybrid raised by Mr. Harding, gardener to H. Bevan, Esq., of Glynn Garth, near Beaumaris. It is stated to have been raised between *I. rubro-cœrulea* and *I. Horsfalliæ*. It is a twining herbaceous perennial, requiring a close warm greenhouse, or a stove. It grows freely and blooms profusely; the flowers are produced in clusters. Each blossom is about three inches across, of a pretty rose-colour, with rich red streaked plaits, and a very dark centre. It is a very handsome variety, deserving a place wherever practicable. It has bloomed for months in the stove at Messrs. Hendersons', of Pine-apple Nursery, London.

MYOSOTIS AZORICA. AZOREAN MOUSE-EAR, or FORGET-ME-NOT. (Bot. Mag. 4112.) *Boraginææ*. *Pentandria Monogynia*. This very beautiful Forget-me-not is a native of the Westerly Azores, growing about waterfalls and on wet rocks in the Islands of Flores and Corvo. It grows half a yard or two feet high, blooming profusely. The flowers are of a very rich indigo-blue, and are produced for a long succession. Sir William Hooker observes that he has grown it very successfully under a hand-glass on the open border, and considers it will do without winter protection. It is also judged to be a very suitable plant for growing in a Ward's Glass-case. It well deserves to be grown wherever it is practicable.

PLATYLOBIUM PARVIFLORUM. SMALL-FLOWERED. (Pax. Mag. Bot.) A native of New Holland; and although it has been introduced into this country for

some years, yet being found difficult to propagate, it is very scarce. It is an evergreen shrub, blooming very profusely in clusters of from eight to a dozen blossoms in each. The flowers are of a beautiful yellow, marked and tinged with red. Each separate blossom is about half an inch across. The plant can be kept dwarf and bushy, or be bushy and attain the height of three feet; to effect which the leads must be stopped. It thrives well in a compost of rough broken loam and peat, with a little leaf-mould added thereto. A free drainage is essential. With such treatment it is one of the nicest greenhouse ornaments. It is best propagated by layering the young ripened shoots. Messrs. Rollissons' possess the species.

STATICE MACROPHYLLA. LARGE-LEAVED THRIFT. (Bot. Mag. 4125.) Plum-baginea. Pentandria Pentagynia. A native of the Canary Islands, and is far superior to the *Statice arborea*. It is now dispersed about the country, and may be had at the principal nurseries. It thrives well in a greenhouse. The panicles of flowers are large, and their fine distinct purple and white produce a striking effect. It is a noble looking shrubby plant.

NOTICED IN THE BOTANICAL REGISTER, BUT NOT FIGURED.

NAPOLEONA IMPERIALIS. Mr. Whitfield has lately brought living plants of this rare and remarkable species from Sierra Leone to the Earl of Derby's, at Knowsley Park. In its native habitat it forms a smooth bush, about the size of a *Camellia*. The leaves are alternate, leathery, between four and six inches long. The flowers grow in threes, produced at the axils of the leaves; when fully expanded are two inches in diameter.

† *NAPOLEONA* was so named by De Beauvois, who first found it in woods behind the residence of the King of Oware, in Western Africa. He stated that the flowers were sky-blue, with a fine rayed pink-coloured star in the middle. Mr. Whitfield states that when they are decaying, they then assume a bluish tint. The flower, it appears, consists of three distinct rings, each of which consists of one petal. The first ring is an apricot colour, divided into five lobes, each of which has seven stiff ribs. The second ring is small and thin, cut into sharp pointed segments. The third ring is a rich crimson, and assumes the form of a cup, having the edge cut into fine segments. The fruit is very similar to a pomegranate, of a soft pulp, eatable, and the natives make ink from the rind.

PLANTS SEEN IN NURSERIES, &c.

LISIANTHUS GLAUCIFOLIUS. It is said to be a perennial. The plant is not near so robust as *L. Russellianus*. The flowers are proportionally so, of a pretty lilac-blue colour, and being produced very freely has a showy effect. It does well in the greenhouse. It has bloomed with Mr. Glendinning at Turnham Green.

PART III.

MISCELLANEOUS INTELLIGENCE.

QUERIES.

ON *CHRYSANTHEMUMS* AFFECTED WITH MILDEW.—I observe in the FLORICULTURAL CABINET it is recommended to water plants infected with mildew with nitric dissolved in water. I beg to know, through the same medium, if the leaves can be washed with anything; my *Chrysanthemums*, though in full bloom, are covered with mildew. I also wish to know the cause of the leaves of *Pelargoniums* being at times affected with a black sticky scale like melted sugar. How am I to cure or guard against it.

[Dust the *Chrysanthemums* over and under the leaves with common flour sulphur. If the *Pelargoniums* be plunged over head in a mixture of clay and water

of the consistence of cream, and this allowed to remain for a few days, then washed off by plunging in water, which is readily done, it will remedy that pest.—CONDUCTOR.]

A LIST OF SUPERIOR CHRYSANTHEMUMS.—I should be glad of a list of two dozen of the best kinds of Chrysanthemums, giving a good contrast, too, in colours.
AN AMATEUR FLORIST.

[Grand Napoleon, dark purple crimson; Celestial, blush; Formosum, white and yellow; Marquis de Crequi, rosy purple; Princess Maria, light pink; Defiance, white; General Laborde, lilac; Campestroni, dark purple crimson; Princess Lamballe, rosy lilac; Vesta, white, with lilac tint; Flechier, dark rose; Louis Philippe, lilac-purple; Goliah, white and sulphur; Princess Royal, blush, with white centre; Prince of Wales, yellow edged, and tipped with red; Bianca, white and pink; Goldsmith, bright yellow; Norfolk Champion, blush, shaded with purple; Queen Victoria, bright lilac-pink; Delight, lilac-purple; Invincible, vermilion, tipped with yellow; Ne Plus Ultra, cream; Itobate, shaded-rose; Phidias, rosy-red.—CONDUCTOR.]

ON ROSES FAILING TO BLOOM, GROWING IN A STRONG LOAMY SOIL, &c.—The Editor of the CABINET will much oblige a constant reader by informing her, in the next Number, what mode of treatment should be adopted for Roses, both Standards and Dwarfs, that grow luxuriantly (in a strong loamy soil well manured), but many of which do not flower, whilst others produce an abundance of the finest blossoms from the same situation, soil, and treatment.

A SUBSCRIBER FROM THE BEGINNING.

Upminster, Essex, February 17, 1844.

[The soil and situation which is suited to one class of Roses does not suit others, this even applies to kinds in the same class. A more satisfactory reply to the question could be given if the class, or kinds, which do not flower, and situation, whether open or shaded, were furnished by our correspondent. The soil they grow in being very strong, &c., should be mixed with some light sandy loam. If the subsoil be wet, cut through some of the principal roots to induce lateral ones to push into the upper soil, and raise the border if convenient. All Rose trees like a dry subsoil, where it does not exist it ought to be made so, by stony rubbish, &c., a wet subsoil induces the production of unripened shoots, which are more or less unproductive of flowers. Well ripened shoots will produce blooming ones, and such ripened shoots should be pruned close.—CONDUCTOR.]

ON AN INSECT, WHICH AFFECTS THE CLIANTHUS AND CLEMATIS.—A subscriber encloses some leaves of the Clianthus and Clematis affected by a tiny insect, which, when examined through a microscope, appears transparent, and is indestructable by the fumes of tobacco. Will you be kind enough, through the medium of your FLORICULTURAL CABINET, to suggest a remedy? The leaves have been immersed in a decoction of Elder leaves without effect. An early answer will oblige,
B. S.

Laceby Rectory.

[Camphor, in a weak degree, boiled in water with soft soap, and the plant washed therein, destroys them; but it should first be ascertained what degree the plant will bear, so as not to destroy the foliage. Try a shoot.—CONDUCTOR.]

ON CAMELLIAS AFFECTED WITH SCALE.—An amateur of the Camellia would feel obliged, by your information, as to the best method of destroying the brown scale, which so frequently are found on the plant, and are the cause of the flower-bud falling off before it blooms, and frequently when in bloom. Would also be glad to know whether the Camellias are best to be constantly kept under glass, or exposed, as other greenhouse plants, in the summer to the atmosphere.

Q.

[Clay and water to the consistence of cream applied to where the insect infests, and kept on for a week or two, will destroy them. Previously to applying it, if the plants are much infested rub off what can readily be done. If at a future time a reappearance is observed, give immediate attention to the same remedy. Shading from hot sun, and the plants kept under glass, is best, admitting a free supply of air.—CONDUCTOR.]

REMARKS.

AN EASY WAY OF MAKING THE SEEDS OF THE CEDAR OF LEBANON GERMINATE.—M. Leroy (André), a nurseryman at Algiers, employs a much more simple and natural method of raising Cedar seeds than the common one. Instead of extracting the seeds from the cones, he plants these last entire in the soil; the seeds find in this condition a moisture suitable for their germination; they unfold themselves between the scales, of which many perish of themselves. It is easy then to remove them, for after-transplantation, either into beds, into the open ground, or into pots. This way is convenient for gardeners who are engaged in the multiplication of such trees, for it comes nearest to nature, and all the fertile seeds germinate. M. Pépin has presented to the Royal Society of Agriculture some seeds of a Cedar of Lebanon, gathered from a single tree, planted in the Garden of Plants in 1735, by Bernard de Jussieu. These seeds germinated last winter in their cones, which still attached to the tree; from the end of January every gale of wind blew down several. This premature germination was doubtless owing to the mildness and dampness of the winter. This was the first time that M. Pépin remarked this fact. The greatest part of the seeds were very much swelled, others had their radicle already extended to the length of one or two inches. The winged membrane which accompanied the seed was generally adherent. Many hundreds of those seeds collected on the ground have been sown in February, and are in as perfect a state of vegetation as those which have been since put into the ground.—*Revue Horticole*.

NEW CHRYSANTHEMUMS.—Having for several preceding years given a descriptive list of the new kinds, the following are what we have recently seen in bloom of those sent out late in 1843 and the spring of the present year. It will be observed that there is a valuable addition of dark colours, which give a very striking and pleasing contrast with the beautiful light ones which previously formed our collections. Such a lovely diversity of beautiful flowers at so late a period of the year, have especial charms, and a collection of some extent ought to be wherever they can be grown. Those grown in the open air, trained against good aspected walls, have this season bloomed beautifully, and now are very gay and ornamental.

- Anne Salter, light yellow, reflexed petals, broad, and double.
- Aristides, orange-brown, very double and distinct.
- Annie Jean, brownish-red, very double and distinct.
- Columbus, pretty rose, very double, broad petals.
- Comte D'Eu, light red, very double, broad petals.
- David, yellow, double.
- De Crequi, in clusters, rosy-purple, very double, and very pretty.
- La Superba, lilac, tasselled, pretty.
- Demosthenes, yellow and brown, very double.
- Duchess de Montebella, light rose, double.
- Duc de Conigliana, crimson, double.
- Duc de Albufera, buff, large flower.
- General Laborde, in clusters, lilac, very double.
- Gouvain St. Cyr, orange, very double, and pretty.
- Horatio, in clusters, fine rose, very showy.
- Horace, rosy-purple.
- Itobate, shaded rose, very double, pretty.
- Incomparable, buff, large.

Isolier, rosy-red, in clusters.
 Leontine, brownish-red, double, pretty.
 Louis Philippe, purple-lilac, very double, pretty.
 Lamarque, orange, very pretty.
 Malvina, purple, very double, pretty.
 Marechal Soult, yellow, pretty.
 Queen of the Gipsies, orange-red, very double.
 Phidias, rosy-red, very double, pretty.
 Princess de Lamballe, in-curved, rosy-lilac, very double.
 Sappho, reddish-brown, very double.
 Venustum, rosy-amaranth, pretty.
 Luxury, yellow, double, very pretty.
 Saladin, dark orange, very pretty.
 Competitor, salmon-rose, pretty.
 Bertram, rosy-purple, pretty.
 Achmet Bey, dark purple-crimson, very pretty.
 Prince de Benevento, quilled pink, pretty.
 (*To be continued.*)

PRAIRIE ROSES.—This is a new group of Climbing Roses, which promises to be of much interest. Mr. Samuel Feast, of Baltimore, United States, has had the pleasure of raising the above-named varieties, from the seed of the single Michigan Rose, *Rosa rubifolia*, an American trailing briar; they are all of most robust and vigorous habits, making shoots in one season more than twelve feet in length. No. 3 is the most perfect and beautiful of the whole, giving clusters of flowers containing from twelve to twenty each; at first they are finely cupped; in a day or two they become imbricated, like those of the Duke of Devonshire. It seems to resist the hottest sunshine, and the flowers remain on the plant for a longer period than usual with any other Rose; in wet weather, however, they are not at all bright in colour, as was the case with some that bloomed the past summer; this has been named also Beauty of the Prairies. My name is that given to it by Mr. Feast. No. 2 only occasionally gives autumnal flowers. No. 1, owing to most of the imported plants dying, is more scarce than the other varieties. All these Roses are perfectly hardy; they will form fine pillars and pendulous standards.

CLOTH OF GOLD ROSE, owing to an accident to the plant left for blooming, has not flowered here this season; I saw it, however, in the commencement of last June, at Angers, in great perfection. A strong plant against a wall had produced from four to five dozen of its splendid flowers; it had made vigorous shoots the preceding season, and every bud had produced its spike of flowers, the extreme outer petals of which were of a creamy sulphur, the inner a bright and beautiful yellow; its flowers were nearly or quite as large as our common Cabbage Rose. This variety will require a south wall in this country, and, like *Noisette Lamarque*, it must be established one year, so as to produce some vigorous shoots; these the following season will give flowers from nearly every bud; these shoots must not, however, be shortened to any extent; four or six inches taken from the end of each will be quite sufficient. If it grows with extra vigour, so as to make shoots from twelve to fourteen feet in length, they must be trained in a serpentine form, or in any other mode, so as to avoid the necessity of shortening them. Like *Lamarque*, it will form a fine standard, but like that it must either be removed to a north wall, as recommended for standard Tea Roses in winter, or have its stem wound round with hay-bands, and its head protected with a prepared calico or other cap. Having introduced this Rose, I feel it my duty to give directions for its culture.

Sawbridgeworth.

T. RIVERS.

ON BRUNSVIGIA JOSEPHINA.—By the following mode of treatment I never fail to bloom vigorously, every second year, the fine bulbous plant *Brunsvigia Jose-*

phina; and this season the head of flowers is 10 feet round and 3 feet high. I have four bulbs, and thus secure a bloom every season. I plant it in a large well-drained pot, a 16. Keep it in a light greenhouse all the winter exposed to plenty of light; in summer remove it to a pit or frame, exposed to the sun, and kept shut. The pot stands in a pan of sand, which is kept moist. The flower-stem appears in July or August, and flowers early in September. It is then cut down, and the plant removed to the greenhouse, but by no means plunged in bottom-heat. The appearance of the leaves is delayed by flowering, so that the plant seldom completes its growth the year it flowers, as in the alternate years.

PAULOWNIA IMPERIALIS.—This fine plant, the first brought into Europe, has bloomed for the third time in the Garden of Plants at Paris. It had 150 terminal heads, about 15 inches long, of flowers, there being from twenty to thirty blossoms in each. The plant produced a most beautiful effect, in such profusion of light blue flowers, as to be a complete bouquet. It deserves a place in every warm pleasure garden. CURATOR.

THE POLYANTHUS.—Among Polyanthuses there have not been so many candidates for floral honour as among other florist flowers, consequently there are less synonyms in this class than in any other. The few that have been twice named have been done so apparently by mistake; and those few were raised by Mr. Hufton, of Nottinghamshire, well known for having introduced many good Carnations and Picotees, as well as Polyanthuses. It is said that Mr. Clegg, of this neighbourhood, who bought the stock, named them, and that Mr. Hufton also did the same; they are known principally by the name the latter gave them, in the midland counties.

The Polyanthus has experienced less improvement than any other class of florist flower, and this is principally owing to the great sameness in seedlings to the parent from which they were raised. The following list contains the whole of the Polyanthuses cultivated in this neighbourhood; they are classed according to their merits, and are not distinguished by the colour of the ground—as dark red and scarlet.

FIRST CLASS.

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| Barrow's Duchess of Sutherland Buck's George the Fourth Bullock's Lancer Clegg's Lord Crewe, alias George Canning Crownshaw's Invincible Collier's Princess Royal Cox's Regent Eckersley's Jolly Dragon Gibbon's Sovereign General Bulivar Fletcher's Defiance Hilton's President | Hufton's Earl Grey, alias Clegg's Lord John Russell. Hufton's Lord Raneliffe, alias Clegg's Prince of Orange, and Clegg's Golden Hero Hufton's Lord Lincoln Maude's Beauty of England Nicholson's Bang Europe Ollier's Beauty of Over Pearson's Alexander Saunders's Cheshire Favourite Wood's Espartero Goud's Independent |
|--|--|

SECOND CLASS.

| | |
|--|---|
| Beauty of Coven Buckley's Squire Starkie Burnard's Formosa Dew's Britannia Faulkner's Black Prince Fillingham's Tantarara Queen's Earl Fitzwilliam Hepworth's Elizabeth Jolly Sailor | Nicholson's Ranger „ Nonsuch „ King Sir Sydney Smith Head's Telegraph Turner's Emperor Buonaparte „ Princess Timm's Defiance, and Yorkshire Regent. |
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Cheetham Hill, Manchester.

JOHN SLATER.

FLORICULTURAL CALENDAR FOR DECEMBER.

All greenhouse plants should have a free supply of air admitted, except when it is frosty. The plants should not be watered in the evening, but in the early part of the day, so that the damps may be dried up before the house is closed, as they are, during the night, prejudicial to the plants. The soil in the pots should frequently be loosened at the surface to prevent its forming a mossy or very compact state. The plants must not be watered overhead. *Luculia gratissima* is the finest ornament for the greenhouse and conservatory, now and through the winter.

The plants of the Cactus that have been kept in the open air during the summer may be brought to bloom successively by taking such as are desired to bloom immediately into the heat of a forcing pine-house. Other plants, to bloom afterwards, should be kept in a greenhouse protected from the frost.

Plants of the *Calceolaria* that have been grown in the open borders during the summer months, and now taken up and potted, should be kept in a cool frame, or cool part of the greenhouse, being careful not to give too much water; just sufficient to keep the soil moist will only be necessary. Offsets will be found rooted; take them off and pot them.

Dutch bulbs, &c., may yet be successfully planted. Many persons who take a delight in growing some showy Hyacinths or other bulbous plants for adorning a room or window, &c., 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, &c.; 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. This or some similar light material should always be used. Even bulbs intended to bloom in glasses we prefer starting in the old bark, and then transferring them to the glasses when the shoots are about two inches long. Where such covering is not adopted, it is of advantage to have the pots or glasses kept in a dark place till the shoots are two or three inches long.

Plants of some of the *Chrysanthemums* that are grown in pots and taken into the greenhouse will be found to have pushed a number of suckers. If the offset are wanted for the increase of the kind, it is advisable to pinch off the tops, so as to prevent their exhausting the plant to the weakening of the flower. If the 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 flowers, 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 seeds 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, canvass, wicker-baskets, &c.

Herbaceous border plants may still be divided and re-planted.

Roses, Persian Lilacs, &c., Honeysuckles, Rhodoras, *Deutzias*, *Ribes*, *Meze-reums*, *Correas*, *Gardenias*. *Lily of the Valley*, *Cinerarias*, Sweet Violets, *Cyclamens*, *Hepaticas*, &c., for forcing, should now be gently forwarded, if required for bloom by Christmas. Straw or reed hurdles ought now to be prepared for covering frames, &c., in the depth of winter.

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PETUNIA NIXENII. This very strikingly beautiful Petunia, which we obtained last Autumn, and now offer, is in our Catalogue of new plants. Unlike all the previous varieties which had been denominated striped, but which, in fact, are only diversified by usual veins proceeding from the throat or tube of the flower outwards, in this kind they are distinct, and proceed from the *edge* of the corolla INWARDS. It is a real STRIPED variety, and when in profuse bloom has a very beautiful effect. It is true to its character, whether grown in a greenhouse, &c., or the open border. Having thus obtained a *real striped* kind by impregnation with others, a most beautiful new race will now be obtained.

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