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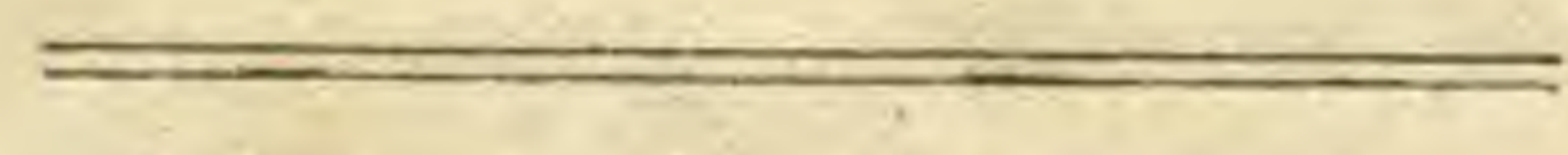
GARDENERS' CHRONICLE

AND

AGRICULTURAL GAZETTE

FOR

1860.



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1860.

should look in a new direction if they are to produce what shall be fit for the purposes of the multitudes who have or would have their little plant houses. Will they pardon us for suggesting that the common French earthenware *poêle* or stove for wood fuel should be taken as their guide? In that simple contrivance heat is extremely lasting; and there is neither possibility of burning the air nor risk of explosions of gas. No stokehole is wanted, no dirty ash-pit, nothing but what is admissible to a bedroom. It is fed by wood, the burning ashes of which accumulate in the interior and slowly part with their heat. Although wood must be used when first lighted, yet afterwards any dry rubbish may be employed; we should think dry sawdust mixed with sticks and chips or similar materials. Possibly even sun-dried bricks, made of clay and sawdust, no more of the former being employed than would hold together the latter, would answer very well.

Strangely enough such articles are not procurable in England; but they might be made extremely cheap. In France they may be had of the commonest kind for 30 or 40 francs; a handsome white glazed cylindrical one, complete in all its parts, and 18 inches in diameter, may be imported from Paris and fixed in London for 10*l.*, all charges of every kind included. But as they travel badly, owing to their weight and the softness of their material, it would be much better to buy them here in pieces, which a handy bricklayer could put together, than to import them entire. Nor in their French form are these *poêles* exactly what is wanted for a greenhouse. They always have a perpendicular chimney or *colonne*: for a greenhouse the chimney should be horizontal, in order to secure a proper distribution of heat. If any ingenious potter were to contrive an efficient apparatus of this kind we think he might calculate upon a little fortune growing out of it if he were prudent enough to obtain legal security for the quiet enjoyment of his invention.

— SOME time ago it was mentioned in our columns that the important duty of obtaining for India a supply of seed of the CINCHONA TREES OF PERU had been entrusted to a Mr. CLEMENT MARKHAM (see *Gardeners' Chronicle*, 1859, p. 464). We did not feel justified at that time in adverting to the rumour that this was something worse than a questionable appointment; no one being able to ascertain what qualifications the gentleman possessed for an operation "demanding not only great energy but a very considerable amount of practical knowledge of gardening, as well as much botanical experience." Our own inquiries into the matter had failed to produce any information upon the subject; but then the Earl of ELLENBOROUGH was understood to have been in some way a party to the appointment, and it was difficult to believe that the noble lord would advise so very important a mission to be intrusted to incompetent hands. After a time we found that a gardener had been provided to act as an assistant under Mr. MARKHAM's directions; a rather suspicious circumstance, seeming to indicate doubts in high quarters of the perfect fitness of the chief of the expedition for the difficult task he had undertaken.

We now learn, upon what we believe to be good authority, that Mr. MARKHAM is on his way home *re infectâ*; that he has accomplished nothing beyond drawing a certain amount of pay for his distinguished services, and that the whole business has to begin again. Thus, it appears that in the hands of the British Government it has been impossible for Englishmen to do what has long since been effected by Dutch and French.

Will no member of Parliament move for papers relating to this discreditable business?

— On the night of Wednesday last, or more probably early in the morning of Thursday, the thermometer in the Garden of the Horticultural Society at Chiswick sank to 34° Fahr. In the same place a radiating thermometer marked 30°!! Have we any authenticated parallel to this in the dog-days?

New Plants.

235. *CYPRIPEDIUM SPECTABILE*, *Reh. in Allg. Gart. Zeit.*, Oct. 11, '56; var. *Dayanum*.

C. foliis oblongis nebulosis tridentatis, scapo et flore extus hirsutis, bractea ovario triplo brevior, petalis elongatis ciliatis margine superiore glanduloso, labello oblongo extus levi intus piloso circa ostium glanduloso, stamine sterili semicirculari pubescente angulis rotundatis margine postico fissa antico obtuse mucronato.

Under the name of *C. Dayi* this was shown at the last meeting of the Floral Committee of

the Horticultural Society as a native of Borneo. We, however, see nothing to distinguish it from the *C. spectabile* of Java, except colour. In that species the petals are white spotted with dark crimson; here they are of one uniform dull wine red. It is a very fine plant, with larger flowers than any of the leathery-leaved species. The leaves are like those of *C. venustum*, but distinctly 3-toothed at the point, like a *Lepanthes*: a peculiarity which occurs elsewhere in this genus. The sepals are white, delicately striped with green. The lip has the same dull wine colour as the sepals, but is marked by deeper-coloured veins.

BEDDING PLANTS IN MOSS.

IT is now I think some 14 or 15 years since Mr. Ferguson, of Stowe, first promulgated his penny plant scheme, the secret of his plan consisting in sending the plants out growing in Moss instead of pots. Like many other original thinkers, Mr. Ferguson reaped a harvest of ridicule, and in some instances anything but measured abuse for his propositions; but still there is merit in the plan, and in these days when bedding plants are wanted by the thousand, economy of expenditure as well as convenience of stowage renders the scheme exceedingly interesting and desirable. In the autumn of last year the frost of October overtook me, even before I had thought of getting my autumn-struck bedding Geraniums under cover, and the consequence was a large majority of the plants were killed to the ground. I had no choice but to make the best of a bad bargain, and the consequence was the young plants were taken up, had the destroyed parts cut away, and were "laid-in" in some light sandy soil on the border of an early forcing Vinery. Here they remained looking most deplorable, some rotting, others throwing a shoot or two from the dormant buds at the base of the cuttings. Heat was applied to the house the end of November, and being gradually increased, by the new year I had a stock of young plants which were daily asking for more room. What was to be done with them? To pot them was quite out of the question, for I had no room for such an array of baked clay as they would have required, and hence I was driven to the Mossing plan. When pots are placed to touch each other it will be found that just 100 3-inch pots will stand in each square yard; but of the larger size, that generally used for bedding plants, only 64 pots will stand in the same space. To prepare pots and soil, pot and put away 500 plants per day, is not bad work for two men; but the Moss being gathered I find a man and boy or woman will Moss and put away 800 to 1000 plants per day with ease. With pots each requires a daily examination if not watering. With plants in Moss a watering once a week is quite sufficient, as being bedded in light soil the roots have a much wider pasture to roam through than if each plant was confined in a small pot. Of the space required by Mossed plants of course much will depend upon the quantity of soil used to each plant; but as a general rule it may be assumed that at the least one-half more, and frequently double the quantity of plants will stand in the room which would be required if the plants were in pots, while the care and attention required by the Mossed plants will not be a tithe of what would be necessary if the plants were in pots.

Given then a quantity of stove plants in pots or boxes to Moss off, the first thing to consider will be the place to put them in after they are Mossed. Generally pots or frames, with a slight bottom heat from leaves or tan, will be the best for free-growing things; but those who have Vineries or other forcing houses may make use of any vacant space for the bedding plants. I cram my inside borders, even under Cucumbers and Melons, full of them without the slightest injury to the principal crop. The place being provided, prepare a quantity of light soil, such as leaf-mould and loam or old Mushroom dung and loam in equal quantities. Put this through a half-inch sieve, and place it in the house ready for use.

Next prepare a quantity of Moss; this, if matted together, will be better of being prepared by beating the same as plasterers prepare hair for hair mortar. All being ready, shake out and divide the plants, then place a small portion of Moss on the palm of the left hand, over that some soil, then the plant; cover the roots with more soil, and then double the Moss up and tie securely. For tying, matting or string may be used, but a much more expeditious and safe plan is to use thin iron wire. This may be purchased at 4*d.* to 6*d.* per lb., and a lb. of wire will tie from 400 to 700 plants, according to its strength and the size of the balls of the plants. It is not necessary to have the wire galvanised, as by the time the wire decays the roots will have taken such hold of the Moss as to prevent its falling apart. As the plants are Mossed let your assistant begin to lay them in the light soil previously spoken of. The distance at which they are placed apart will depend upon the size of the plants, but generally in the row the balls may be placed so as to touch each other, and have a little breathing space allowed between the rows. In this the first station the plants will stand until they have rooted in the new soil, been stopped, and made new shoots; and if stock is wanted it may be necessary to stop them a second time. After they have made the second growth the plants are fit to remove to a cooler place, for I suppose

that so far they are in a forcing-house. At the time of removal to a cooler house the soil should be dry rather than otherwise, so that after they are replanted, packed with fresh compost and watered, they will feel little of the check. This shift I suppose to be into a cool greenhouse Vinery or pit, and here the plants will remain until April, at which time they may again be removed into a cold pit, with temporary covering, or what is now so much recommended, a Tiffany house. No doubt a house of this kind would be found exceedingly useful in every establishment, not only for protecting bedding plants, but also for Fuchsias, Camellias, Azaleas, &c., at the present time, and especially in a season like this, when it has been almost impossible to trust a plant of value to the drenching rains we have lately had. Mr. Standish tells us of the frost-resisting power of this Tiffany covering, but the frost-resisting qualities will depend more upon the size of the house than the material it is covered with. Thus, for illustration, if a house contained a volume of say 5500 cubic feet of air, it might, if it was tolerably air proof and was shut up warm the preceding day, contain sufficient caloric to resist a frost of 6° or 8° below the freezing point, but if it contained 500 feet only, then it would be frozen through and through. This is the reason why glass walls failed in protecting plants though orchard houses succeeded, and this is the reason why my lord's conservatory may pass unscathed through a cold night without fire, while in the small house at the rectory the plants are all frosted. It is not the heat-preserving property of the covering, but the quantity of heat stored up in the atmosphere, which is the real protecting power.

After the middle of April many temporary experiments for protecting plants may be resorted to, such as earth pits, turf pits, straw pits, and I have kept thousand of plants with a skeleton framework, supporting Fir branches and a few old mats, or a tarpauling, while the nursery cradle, with good mats, is for bedding plants a real good covering. It is essential to get bedding plants thoroughly hardened before planting them out, but when they are put into the last place before removing them to the flower beds, the compost should be tolerably rich and strong. I am inclined to think these frequent removals by checking the growth of the plants have a tendency to promote a short, sturdy, and healthy growth, and at the same time ensure a floriferous habit, while the facility with which a large quantity of plants may be bedded-out is a real gain to the gardener. In bedding-out one man plants, leaving the soil about the ball and roots quite loose; a second follows, and gives each plant a thorough soaking of manure water; while a third shortly afterwards follows, firms the soil, and cleans off the beds, leaving the surface quite loose for an inch or two in depth. In this way the plants rarely require a second watering, but if they do, the hoe follows the watering pot. A great saving of labour is effected in having no pots to pick up and store away. A. P. H.

ASCENT OF CLARENCE PEAK, FERNANDO PO.

THE following extracts from a letter I received this week from Mr. Gustav Mann will no doubt be of interest to your readers. Mr. Mann, it will be recollected, is the successor of poor Barter, the botanist to the Niger Expedition, whose untimely death was recorded in your pages. From the disturbed state of the native tribes, and from ill health, Mann has been unable to join the expedition, which is some distance up the river. He has therefore devoted himself to the botany of Fernando Po. He is the second European* who has ascended Clarence Peak, a mountain more than 10,000 feet high, occupying nearly the centre of that island.

"I promised before leaving Kew, that as the plants I should collect would be placed under your charge, I would give you some information about their native habitats, but I have not hitherto been able to do so. I will endeavour now to give you some idea about those which I sent by the last mail. I only wrote a short note then because I was so weak, and all my failing energy was required to pack my dried collections and living plants for Kew. I think I rather overworked myself; I had another attack of fever, but I am now recovered. That note informed you that I had succeeded in ascending the mountain. It was a great pleasure to me but fraught with many difficulties, for as but one person had preceded me I could obtain no information which could be of service. I started from here (Port Clarence) on March 23d, and by the close of the first day had attained an altitude of 1300 feet. Here I found a little hut which the Boobees (a native tribe) had erected during the dry season; this protected me a little from the rain. The vegetation even here was quite different from that I had left behind; all the trees were covered with Orchids, Begonias, and Ferns; Mosses a foot long or more hung from the branches overhead. I collected as many as I could of your favourites the Ferns. The large *Trichomanes* which I sent in the Warden case grew in the soil, the smaller species on the trunks of trees. Here also I found the large *Acrostichum* and a new species of *Dracana*. On the 27th I reached the height of about 5000 feet, and found on the way some splendid plants of *Cyathea*, the fine *Calanthe*, and the *Liliaceæ*, of which I send six bulbs. These last were growing on rocks in a little stream; when they are in flower they will make quite a

* Capt. Beecroft was the first.