

sunk in the apex, soon after which, if all go on favourably with them, they take their normal form.

In striking them from cuttings, I have had various degrees of success, and have for the sake of experiment used the wood in all states; but I like one-year-old well, and that well ripened best of all. With this, and the never-failing cocoa-nut fibre refuse, I generally obtain nicely-rooted plants in about six weeks.

The soil I use for growing my plants in is similar to that used for the seed-pans, but much rougher, and I always study to give more surface than depth, as I like to see the masses of black woolly-looking roots near the surface, and upon it.

These plants flourish in a moist warm atmosphere: consequently the syringe should be used very frequently during the day, with the thermometer ranging from 70° to 85° in summer, and 65° to 70° in winter, when less syringing must be done; but the plants should never be allowed to be quite dormant. The time I usually choose for repotting is about the end of February.

I intended to say a few words upon *Cephalotus* and *Sarcenias*, under the head of Pitcher-plants, but must defer it until some future time.—*JUVENIS*.

VARIATIONS EFFECTED BY CULTIVATION.

As you have been so obliging as to insert my query on the crossing of Strawberries, perhaps you will grant me the favour to insert two or three other questions, for the chance of some one having the kindness to answer them. I am writing a book on "Variation under Domestication," in which I treat chiefly on animals; but I wish to give some few facts on the changes of cultivated plants.

1st. The fruit of the wild Gooseberry is said to weigh about 5 dwts. (I am surprised that it is so heavy), and from various records I find that towards the close of the last century the fruit had doubled in weight; in 1817, a weight of 26 dwts. 17 grs. was obtained; in 1825, 31 dwts. 13 grs., in 1841, "Wonderful" weighed 32 dwts. 16 grs.; in 1845, "London" reached the astonishing weight of 36 dwts. 16 grs., or 880 grains. I find in the "Gooseberry Register" for 1862, that this famous kind attained only the weight of 29 dwts. 8 grs., and was beaten by "Antagonist." Will any one have the kindness to inform me whether it is authentically known that the weight of 36 dwts. 16 grs., has, since the year 1845, been ever exceeded?

2nd. Is any record kept of the diameter attained by the largest Pansies? I have read of one above 2 inches in diameter, which is a surprising size compared with the flowers of the wild *Viola tricolor*, and the allied species or varieties.

3rd. How early does any variety of the Dahlia flower? Mr. Salisbury, writing in 1808, shortly after the first introduction of this plant into England, speaks of their flowering from September, or the end of September, to November. Whereas, Mr. J. Wells, in Loudon's "Gardener's Magazine" for 1828, states that some of his dwarf kinds began flowering in June. I presume the end of June. Do any of the varieties now regularly flower as early as June? Have any varieties been observed to withstand frost better than other varieties?

If any one will give me information on these small points, I shall feel greatly obliged.—*CHAS. DARWIN, Down, Bromley, Kent.*

VINERY UNPRODUCTIVE.

My vinery, a lean-to about 20 feet long, faces the south. The border, made fifteen years ago, 2 feet deep, bottomed with brickbats; a good mixed soil, replenished on the surface with horse-dung nearly every year. Now, this vinery has never done well. The Grapes generally become clung, and fail to get any colour, at least two-thirds of them; I am speaking of the Black Hamburgs. My men gives them plenty of air, and shuts them up every night. We do not force them by heat, but give them a little heat in March. We have had the opinion of efficient men, but their opinions vary. One says it is in the house, others say it is in the border. Will you give me your opinion in your Journal? This year the mildew spoiled those that would have ripened.—*R. B. S.*

[We should have been more able to decide between the different opinions given, had we known more of the state of your Vines; and if, in addition to brickbats at the bottom of the border, it is also sufficiently drained. We will, therefore, just

make two suppositions, and shall be glad if either meet your case. If the wood of the Vines is vigorous, long-jointed, foliage large, wood imperfectly hardened, and somewhat pithy in the centre when cut, then there is no doubt either that the border is not drained sufficiently, or the roots have descended even beyond your brickbats, or the soil altogether is too rich for the Vines. In such a case, the most effectual cure would be a good deep drain in front, and raising the Vines and planting them in fresh soil, consisting chiefly of fibry loam lightened with lime rubbish, and enriched with eighteen bushels of broken bones as the most lasting manure. This should be done now, and the roots as little exposed as possible, placed within 4 to 6 inches of the surface, and covered with fermenting matter to set them growing, and if the Vines breaknaturally, they will feel the operation but little the first season. The second remedy would be less troublesome. Secure drainage, and then remove the rich surface from the top of the border, doing it carefully so as not to hurt the roots; but getting down to the bulk of them, and then giving 3 inches or 4 inches of fresh soil, and then a layer of horse-droppings, and a little litter above will entice the fresh roots into it, and a little may be added every year.

If the wood is firm, short-jointed, and moderately strong, then something of the last remedy may also be applied, but greater care will be necessary in the management of the house; and, besides giving air plentifully during the day, air should be given early in the morning, and after the Grapes are set a little air should be left on at night, and fire used in dull weather in autumn to enable this to be done, and the heating medium, flue or pipes, brushed with lime and sulphur if never hotter than 160°. By these means and moderate cropping, you will secure colour and avoid the mildew.]

THE ROYAL HORTICULTURAL SOCIETY.

No one can be more alive than we are to the mistakes and misdeeds of those in authority over this or any other public body, and we never have refrained, and never shall refrain, from exposing them. The mistakes and misdeeds, however, must be specific—general and sweeping complaints never effect reform, and are unfair, because, like sneers, they cannot be refuted. On these grounds, and because we condemned the mistakes he notices as they occurred, we decline inserting the chief part of a letter which we have received, and at the same time assure the writer that he is labouring under a misapprehension, when he concludes that it is to Dr. Lindley that his causes of complaint are attributable. We believe we are correct in stating, that Dr. Lindley neither exercises, nor wishes to exercise, any paramount influence in the Society's Councils, and, therefore, any feeling the writer may have on that subject is groundless. But there is an alleged fact at the conclusion of our correspondent's letter which deserves explanation, and so we publish it without reserve.

"An eminent nurseryman near London very generously offered prizes of £3 value for Hyacinths, of which he is an ardent admirer as well as grower. The offer was accepted, and he announced it in his catalogue. To his surprise no notice whatever is taken of it in the 'Proceedings' of the Society, but he hears that the Council have changed the day of the Hyacinth Show from March to February, thereby making it a Show of forced, instead of unforced flowers, and entirely frustrating his intentions. He wrote, I am told, to the Secretary, complaining that it was not noticed in the 'Proceedings,' as other special prizes had been, and is informed they were only 'common prizes, and, therefore, there was no reason for discriminating between them and the other prizes.' Yet, when Sir C. W. Dilke offered his prizes they were announced; when the prize for dinner-table plants was offered that also was noticed; and when Master Somebody gives two gold fish to the pond, it is duly announced in large type. But no place could be found for announcing a nurseryman's prize. What wonder is it that he will never trouble the Society again with special prizes for Hyacinths?"

"This is one example out of many. I have more at your service if you give place for this."—*VIGILANS.*

NEW CUCUMBER.—We have received from Mr. Edwards, of York, through Messrs. Hurst & Son, of Leadenhall Street, fruit of a new Cucumber called "Reynolds's Perpetual Bearer." Of