

and vigour. Pruned as here directed, and managed with ordinary care, the canes will attain a length of ten or twelve feet, and be of a proportionate size. The following winter, prune them to about half their length, and in the spring a side-shoot will be produced at every bud. About nine inches will be the proper distance for the side branches to be apart on each side; consequently, if the canes are short-jointed, and the buds rather close together, it will be necessary to remove every other shoot on each side of the vine when about two or three inches in length, or as soon as it can be seen which will be the strongest. In all probability, one or more bunches will be produced on every lateral branch; but, as four bunches are as many as it will be prudent to allow each to carry, the least promising must be removed at an early stage. All the shoots, with the exception of the one at the end, must be stopped when about twelve inches in length, those bearing bunches being stopped at either the first or second leaf above the bunch. The end shoot must be trained along the wire to take the place of that portion of the cane removed at the previous winter's pruning; and it will require stopping at about twelve inches beyond the point to which it will be pruned back the succeeding winter. The following winter, the necessary pruning will consist in shortening the leading shoot as required, and in cutting the lateral branches back to one eye. In the spring, the portion of the main cane produced the previous summer should be managed the same as advised for the other portion the year previous. In all probability, two or three laterals will be produced at each spur after the canes are two years old; and, as one will be sufficient, all but the one most promising to each spur must be removed when a few inches in length.

The summer management consists in ventilating the frames, stopping the laterals as required, pouring water on the floor for maintaining a proper degree of atmospheric humidity. During the summer season, the vines may be watered if the weather happens to be dry enough to render it necessary. The bunches will require thinning, but it must be done in a careful and moderate manner.

TERRESTRIAL ORCHIDS.

BY GEORGE GORDON.



OF the large number of exotic orchids in cultivation, the terrestrial species, that is to say, those which grow in the soil in their native habitats, form but a very small part. They are, however, all deserving of the estimation in which they are held by experienced orchid-growers, and I gladly comply with the request of a correspondent, and offer a few hints on their cultivation.

CALANTHES.—First we have the lovely *C. veratrifolia*, with its immense spikes of pure white flowers, which are produced in such abundance during the months of May and June as to render it invaluable for the summer exhibitions. Then there are the pretty

little *C. vestita* and *C. lutea*, both of which are good. They are so very nearly alike (the only difference being in the colour of the eye) that one variety in a collection is quite sufficient unless it is a large one. For my own part, I prefer *vestita*, which has a pink eye; the other has a yellow one. And, again, there is *C. furcata* and *C. masuca*, desirable things in their way, the last-mentioned being of great value for exhibition. Dominy's charming hybrids, *C. Dominii* and *C. Veitchii*, should also be in every collection. The last has large pink flowers which are freely produced during the winter, and are of great value for bouquets.

To have them in perfection, let them have the assistance of a temperature varying from 70° to 80° during the summer months, and about 55° during the winter. A compost of two parts nice light fibry loam, and one part each of peat, rotten leaf-mould, thoroughly decomposed cow-dung, with a little sharp silver-sand, will be in every way suitable to them. The pots must be effectually drained and clean, and the plants must not be overwatered at any period of the year, especially during the winter, when it must be nearly (if not quite) withheld. The bulbs must not be allowed to shrivel, but there need not be much fear upon that point if the plants have had sufficient light to thoroughly ripen the bulbs, and unless they are matured, it will be useless to expect them to bloom in anything like a satisfactory manner. They are best grown as near the glass as practicable, and should receive as much light as possible without being exposed to the direct rays of the sun during the hottest months of summer. I think it will be scarcely necessary for me to say that if the sun shines directly upon them, the leaves will be burnt, and the plants will suffer material injury.

PERISTERIA, the "Dove Flower."—*Peristeria alata*, which is also known as the *Esperitu santo* (*Holy Ghost Flower*) of the Spaniards. The flowers are not very showy, but they are exceedingly interesting from their close resemblance to the bird after which it takes its popular name. In my opinion, its magnificent foliage is of itself a sufficient reason to claim for it a place in the orchid-house; for when well grown, with leaves from four to five feet in length, and of a proportionate breadth, it has a very imposing appearance amongst the other plants. The same temperature, soil, and treatment, as recommended for the *Calanthe*, will answer admirably; therefore, it is not necessary to enter fully into the cultural details.

PHAJUS.—The three fine species known respectively as *P. albus*, *P. grandiflorus*, and *P. Wallichii* should be grown in every collection, more especially the two latter, for they have very bold and handsome foliage. The two latter will do in a temperature of five degrees lower than the *Calanthe*, and require a richer soil. They all grow freely, and bloom profusely when potted in a mixture of equal parts of fibry loam, leaf-mould, and rotten cow-dung. *P. albus* does very well treated exactly the same as the *Calanthe*.

SOBRALIA.—This genus should be well represented in every orchid-house, as some of the species are very lovely; especially to be noticed is *S. macrantha*, which produces its immense and beautifully-coloured flowers for a long time in succession from the old

spathe. Although they require a generous temperature, say when growing 75° to 85°, and 65° to 75° during the winter, they may be placed in the conservatory for two months at a time, when they are in flower. Of course the cultivator must be careful enough not to put them where they would be in a direct draught, and also not to overwater them, and to bring the change about in a gradual manner, both in bringing them into the conservatory from the orchid-house, and in returning them back again. The best specimens I have ever seen of the *Sobralia* were grown in peat and silver-sand, prepared in the same manner as it is for potting *Azaleas*, and such like plants; and they had abundance of drainage, the pots being about half full of crocks. *S. macrantha grandiflora* is a fine variety that can be highly commended, and *S. Ruckerii* is very good

NEW ROSES RAISED IN LYONS.

BY M. JEAN SISLEY.



- A**MAZONE.—Tea-scented; dark yellow. Ducher.
Anna Ollivier.—Tea-scented; light rose. Ducher.
Antoine Alléon.—Hybrid perpetual; cherry. Dalmaizin.
Belle des Jardins.—Striped Provence; purple striped white. J. B. Guillot fils.
Bouquet d'Or.—Noisette; dark yellow. Ducher.
Marie Accary.—Noisette; white. J. B. Guillot fils.
Madlle. Fernando de la Forest.—Hybrid perpetual; rose. Dalmaizin.
Madlle. Marie Arnaud.—Tea-scented; yellow. Levet.
Madlle. Marie Cointet.—Hybrid perpetual; rose. J. B. Guillot fils.
Madame Chaveret.—Tea-scented; yellow. Levet.
Madame Docteur Jutté.—Tea-scented; yellow. Levet.
Madame Francois Janin.—Tea-scented; yellow. Levet.
Madame Lacharme.—Hybrid perpetual; pure white. F. Lacharme.
Madame Marius Cote.—Hybrid perpetual; cherry. J. B. Guillot fils.
Mons. Henry Bennett.—Tea-scented; light rose. Levet.
Mons. Claude Levet.—Hybrid perpetual; crimson. Levet.
Mons. Pierre Seletzky.—Hybrid perpetual; purple. Levet.
Ma Surprise.—Microphylla; white shaded pink. J. B. Guillot fils.
Marcellin Roda.—Tea-scented; white, yellow centre. Ducher.
Mont Rosa.—Tea-scented; salmon. Ducher.
Perle de Lyon.—Tea-scented; dark yellow. Ducher.
Perle des Blanches.—Noisette; pure white. F. Lacharme.
Reine Victoria.—Ile Bourbon; bright rose; J. Schwartz.
Souvenir de la Duchesse Amélie.—Hybrid perpetual; purple. Liabaud.
Thé à Bouquet.—Tea-scented; white, striped red. Liabaud.