

wistful face, and noting how thin it has grown, "you must not overdo yourself even now. You must husband your strength, and be sure and take air and exercise every day; and if you will do me the honour of riding my horses, they are entirely at your disposal. I am very interfering, am I not?" he continues, with a smile, "but that is the special privilege of an old family friend."

"You are very kind," responds Dolly, restraining a sudden rush of tears to her eyes; "and I promise you I will not knock myself up." And with a warm hand-

clasp she has bidden him good night, and is disappearing fast up-stairs.

"Poor child!" he murmurs to himself. "It is all thrown on her shoulders, and no one would care if she never stirred from the child's side—Here I am, my lady," in answer to Lady Travers' call, "ready to fight Sir Augustus."

"Oh, Harry, Harry!" cries Dolly, as she shuts her room-door, "where are you? Why do you not come to me?"

END OF CHAPTER THE SEVENTEENTH.

ROSES, AND HOW TO GROW THEM.

BY A PRACTICAL AMATEUR.



ROSE-CULTURE as a recreation cannot be too highly extolled, especially to any one who is daily engaged in sedentary pursuits. The "queen of flowers" is an object of delight to every lover of nature, and this delight is increased tenfold when we can grow this "thing of beauty" for ourselves. The rose may be grown to

perfection by any amateur who cares for its cultivation, by attention to a few details, which

can be very easily carried into effect.

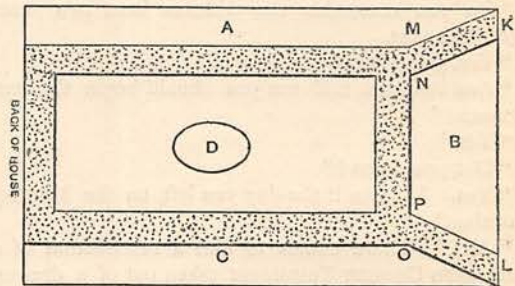
The first thing to be considered is a suitable soil and situation. A clayey soil is the natural home of the rose, and the purer the air the better: hence, dwellers in the immediate vicinity of cities and large towns must not expect to succeed so well as those who live in the country; nevertheless, even the townsman can grow splendid blooms, provided he make a judicious selection—*i.e.*, attempt to cultivate *none but roses of a hardy habit*; and happily there are a great number of that kind, including several of the finest exhibition varieties, in cultivation. The suburban amateur should not spend money, time, and trouble by attempting in vain to grow roses of delicate constitution.

Now to enter into our subject in proper order. We will first give practical instructions for the

Arrangement of the Rose Garden.

Let us take for an example an ordinary villa or cottage garden (see the figure). D is the lawn or central

grass plot, which, if not used for croquet or tennis, may advantageously contain an oval bed in the centre and a crescent-shaped or round bed at each end. A, B, and C are borders, and the walks are shaded. A beautiful display of roses might be produced in such a garden by planting tall standards to border the lawn, in the centre of each lawn bed, and in the back part of border B; dwarf standards on the Manetti brier or bush roses at equal distances on borders A and C, and in the front part of border B; and climbing roses on galvanised iron arches spanning the walks at M N and



O P, and, if desired, to cover the wall, K L. Rockeries at K and L, containing hardy ferns, would greatly add to the beauty of the garden, and if the lawn beds are bordered with pyrethrums and blue lobelias, planted alternately, the effect will be particularly pleasing. Now with regard to the

Preparation of the Soil.

The following details must be thoroughly carried out in order to make rose-culture a success. The soil for roses should be rich, porous, and moderately heavy. If it be stiff clay it must be made friable, and fertilised by a dressing of fresh-burnt lime; the contents of the ash-bin will also be particularly useful to lighten it and render it porous. Lime need not be used for ordinary garden loam. The soil should be twice dug. First, dig the ground all over to a depth of at least two feet, carefully pulverising it. Set this soil up in two ridges to the depth of the digging, and let it remain so for a few days.

Before going over it a second time, strew between the ridges old stable or cow-shed manure and sand, or road-sweepings, or, what is better still, if available, the ashes of a "smother" (*i.e.*, garden bonfire), in equal quantities. Having done this, fork down the ridges, work the compost well together, and tread the ground firm. This is, of course, applicable to the borders; but supposing the amateur desires to grow standards round the lawn, he must remove the turf in each place where a standard is required (the spaces between them should not be less than five feet), in a circle of about five feet in diameter, prepare the soil as directed above, and in replacing the turf, a circle of at least two feet in diameter should be left open. This is important, for standards never thrive as they might *when the turf is laid up close to the stock*. It should be stated that before the turf which has been removed is re-laid, the top soil should be covered to a depth of, say, two or three inches with any poor soil, or a mixture of garden mould and ashes, in order to prevent the re-laid turf from growing too luxuriantly; but the open space should be filled with a good rich compost of old manure and garden mould, which the rain will wash down to the roots to enrich the plant.

Now, having prepared the soil, the next thing to do is to make a

Selection.

In this matter the amateur must beware of the specimens exhibited at rose shows, because they are mostly grown under glass, and if not produced thus, are the outcome of horticultural skill and advantages with which he can rarely compete. He would do well to note the roses grown in his district, in gardens, nurseries, or cemeteries. A respectable neighbouring florist will supply him with much useful information. From the many hundreds of roses in cultivation, the list here given contains none but those which are perfectly hardy, and which we can conscientiously recommend to the amateur rose-grower.

I.—Standards on the English Brier.

- (a) *Darkest—Purple, Dark Crimson, and Bright Crimson.*—Antoine Ducher, Charles Lefebvre,* Gloire de Ducher, Louis van Houtté,* Eugène Verdier, Prince Camille de Rohan,* S. Reynolds Hole.
- (b) *Red—Crimson and Carmine.*—Alfred Colomb,* Annie Wood, Docteur Audry,* Baron Haussmann, Général Jacqueminot,* Lord Macaulay, Gloire de Santenay, Madame Victor Verdier,* Marie Baumann, Sénateur Vaisse,* Rev. H. Dombain, Duchesse de Caylus.*
- (c) *Light Red—Light Crimson and Bright Rose.*—Bernard Palissy, Beauty of Waltham, Glory of Waltham, Edouard Morren, Jules Margottin,* Madame de Cambacérès, Madame Domage, Marquise de Castellane, Victor Verdier,* Marie Rady, Paul Neron,* John Hopper,* A. K. Williams.*
- (d) *Pink—Dark and Light.*—Abel Grand, Baroness Rothschild,* Baronne Prévost,* Elie Morel, Lyonais, La France,* Marguerite de St. Amand, Captain Christy.*
- (e) *Tinted White.*—Mrs. Rivers, Miss Ingram, Princess Mary of Cambridge, Souvenir de la Malmaison.*
- (f) *Pure White.*—Madame Lacharme,* Perle des Blanches, Boule de Neige.
- (g) *Tea-scented.*—Gloire de Dijon,* Perle de Lyon,* Madame Ducher, Cheshunt Hybrid.*
- (h) *Noisette.*—Aimée Vibert,* Celine Forestier,* Maréchal Niel, Rêve d'Or.

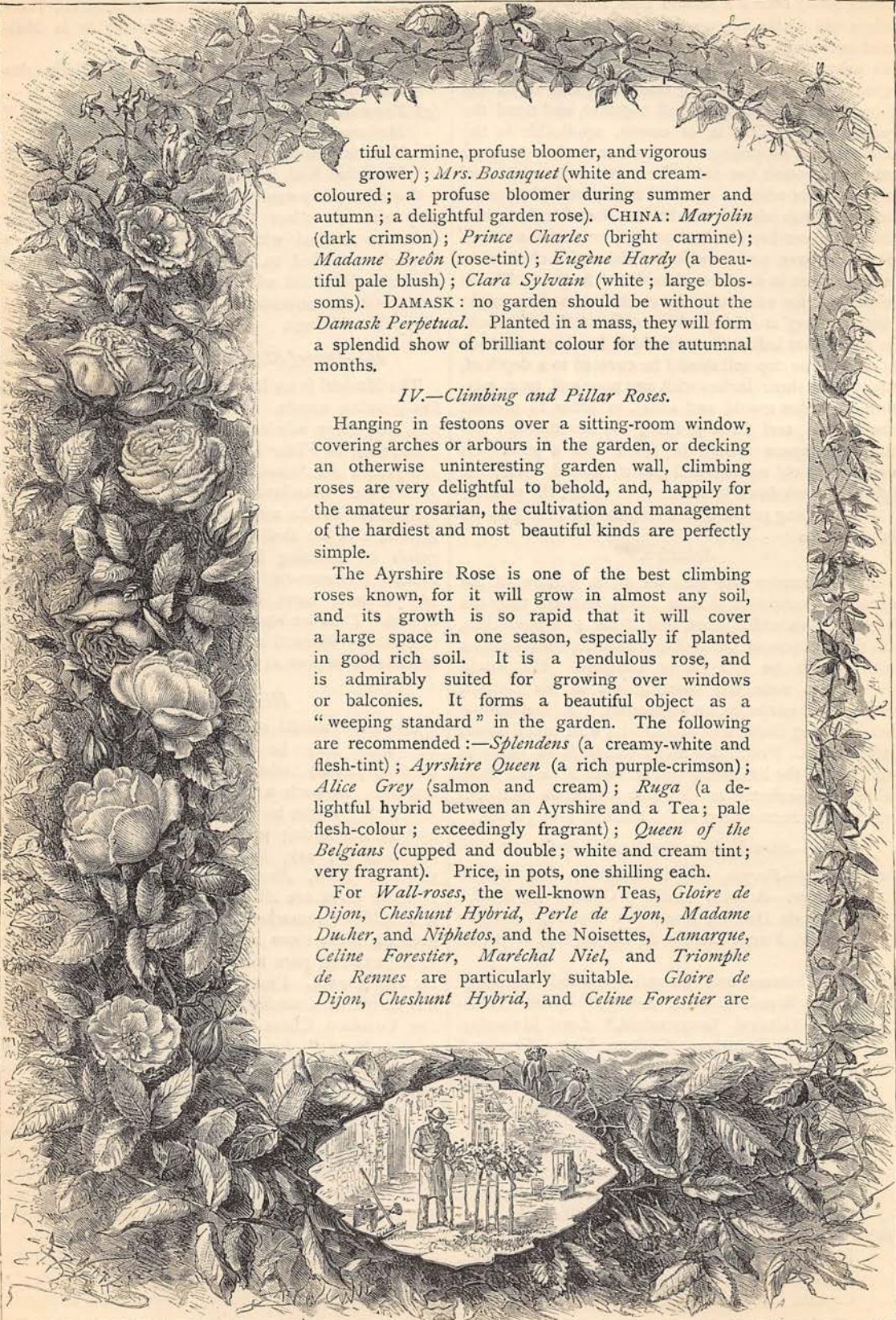
Out of the fifty roses above mentioned the amateur may want to select twenty-five. Let him choose the ones marked with asterisks, and if they are properly attended to, he will have a garden made perfectly delightful with typical blooms of the very best kinds in cultivation. The lot would cost about thirty-five shillings.

II.—Dwarf Standards on the Manetti.

The Manetti is an Italian brier, noted for its hardy, free-growing nature. It will thrive on the poorest soil, and serve admirably for perpetuals of a robust habit, such as *Victor Verdier, Charles Lefebvre, Jules Margottin, La France, Baroness Rothschild, Docteur Audry, &c.* Standards on the Manetti are very advantageous to the amateur for the rapidity of their growth, and we shall give instructions in the paragraph on planting how to convert roses on the Manetti into *own-root roses*, which will last a lifetime, and become more beautiful and luxuriant every season. Thus we strongly recommend every rosarian to cultivate Manetti roses. They may be purchased, established in pots, at a shilling each.

III.—Bush Roses.

Amateurs should specially cultivate Bush Roses, for they may be made to form objects of dazzling beauty when well arranged and suitably pruned. In such a garden as we have planned above they might be planted in the borders A, B, and C, alternating with dwarf standards, at equal distances of, say, five feet apart. The *Provence, Cabbage, Moss, Evergreen, Bourbon, China, and Damask* roses are all suitable for this purpose; but it should be remarked that it is useless to attempt growing Moss roses in the neighbourhood of cities or large towns, pure air being imperatively necessary for their growth. Provence and China roses also will not thrive in a smoky atmosphere. For this reason the Common China often bears the name of the "Pilot Rose;" for if the rosarian can grow it satisfactorily in his garden, he may with safety plant out Teas and Noisettes. We append the names of a few choice kinds which can be thoroughly recommended:—EVERGREEN (*R. sempervirens*): so called because its beautiful dark foliage grows on to the winter months: *Rosea major* (rose and flesh-tint); *Félicité perpétuelle* (flesh and cream-tint); *Carnea grandiflora* (pale flesh-tint, double); *Triomphe de Bolwhyller* (beautifully fragrant); *Banksæflora* (shades of cream and yellow); *Donna Maria* (pure white; very beautiful). BOURBON: *Sir Joseph Paxton* (rose, with shades of crimson); *Bouquet de Flore* (beau-



tiful carmine, profuse bloomer, and vigorous grower); *Mrs. Bosanquet* (white and cream-coloured; a profuse bloomer during summer and autumn; a delightful garden rose). CHINA: *Marjolin* (dark crimson); *Prince Charles* (bright carmine); *Madame Breôn* (rose-tint); *Eugène Hardy* (a beautiful pale blush); *Clara Sylvain* (white; large blossoms). DAMASK: no garden should be without the *Damask Perpetual*. Planted in a mass, they will form a splendid show of brilliant colour for the autumnal months.

IV.—Climbing and Pillar Roses.

Hanging in festoons over a sitting-room window, covering arches or arbours in the garden, or decking an otherwise uninteresting garden wall, climbing roses are very delightful to behold, and, happily for the amateur rosarian, the cultivation and management of the hardiest and most beautiful kinds are perfectly simple.

The Ayrshire Rose is one of the best climbing roses known, for it will grow in almost any soil, and its growth is so rapid that it will cover a large space in one season, especially if planted in good rich soil. It is a pendulous rose, and is admirably suited for growing over windows or balconies. It forms a beautiful object as a "weeping standard" in the garden. The following are recommended:—*Splendens* (a creamy-white and flesh-tint); *Ayrshire Queen* (a rich purple-crimson); *Alice Grey* (salmon and cream); *Ruga* (a delightful hybrid between an Ayrshire and a Tea; pale flesh-colour; exceedingly fragrant); *Queen of the Belgians* (cupped and double; white and cream tint; very fragrant). Price, in pots, one shilling each.

For *Wall-roses*, the well-known Teas, *Gloire de Dijon*, *Cheshunt Hybrid*, *Perle de Lyon*, *Madame Duher*, and *Niphotos*, and the Noisettes, *Lamarque*, *Celine Forestier*, *Maréchal Niel*, and *Triomphe de Rennes* are particularly suitable. *Gloire de Dijon*, *Cheshunt Hybrid*, and *Celine Forestier* are

exceedingly vigorous, and will even bear the smoke of towns. They will cover the side of a house in about four seasons. Now that we have given the amateur ample room for selection, we shall give a few necessary hints on

Planting.

For standards on the English brier, October, November, and February are generally considered the best months for planting. The roses planted in October or November come from the open ground; those planted in February have been housed and established in pots ready for sale. We will suppose that the amateur has prepared the soil as directed, and bought his rose-trees. He should now mark off distances of five feet along the beds and lawn, and appoint a place for each tree (arranging the colours to suit his own fancy). In each place a hole should be dug, two feet square and two feet deep. Into each hole a spadeful of well-rotted cow-dung should be put and well worked up with the removed soil, filling the hole up to about six inches from the top; on this the roots of the tree should be spread horizontally, then the soil should be filled in and trodden down hard and firm until it forms a layer four inches thick above the roots. Here a word of caution is necessary. It is very important that the soil should be trodden down as hard and firm as possible, for unless this be done the trees will not thrive. "*Mulching*" is the next operation, *i.e.*, spreading a layer of cow-dung two inches deep around the base of each tree, and plentifully watering through it to settle the earth about the roots. This coating of manure will preserve the trees during the winter frosts, and should be left until March, when it might be forked into the soil. In watering, the ground should be thoroughly soaked night and morning for a day or two, then left for a week, when the soaking should be resumed; a mere watering of the top soil every day does more harm than good. The trees should next be staked.

For standards on the Manetti, bush roses, and climbing roses, the latter end of April or the beginning of May is the best time for planting; if the weather is fine and open, towards the end of April is to be preferred. In a former part of this paper we strongly recommended the amateur rosarian to grow Manetti roses, as they may be converted into *own-root* roses. This is effected by the mode of planting. The Manetti brier is particularly liable to throw up suckers, which, if not checked, will sadly impoverish the roses borne upon it. This may be prevented by nipping off every little incipient bud from the stock below the graft before planting, and by planting the tree sufficiently deep for the top soil to be two inches above the graft. By so doing the rose will put forth roots of its own at its junction with the Manetti stock, and as they grow strong the old stock will die. There are two advantages thus gained: each sucker thrown up by the *own-root* bush will be an additional rose-tree, and in the event of a severe frost, should the shoots be

killed, the tree will be renewed again from the roots. In planting Manetti roses, the ball should be removed from the pot entire. After treading the ground firm about them, they should be mulched and copiously watered. With the exception of China roses, the other bush roses given in our selection may be planted as directed for standards on the English brier. China roses require the soil a little lightened, and this can be effected by adding to the compost recommended some sandy loam or road-dust and rotted turf; the rotted sweepings of the lawn would answer very well.

The next thing we have to speak of is

Pruning.

This is applicable to root as well as branch. The object in pruning the former is to favour the growth of new root-fibres or spongioles, for the roots feed chiefly by them; and the object in pruning the latter is to produce a well-formed head. Root-pruning is only necessary every two years for standards. They should be taken up very carefully in spring, while in a torpid state; the thick, coarse rootlets should be cut away with a sharp knife, and the trees replanted in a fresh compost: this will thoroughly re-invigorate them, and cause them to bloom profusely. March is the usual time for pruning the head, except in the case of Tea-scented, Noisette, and China roses, which should be pruned in the middle of April. It must also be observed that these roses "do not bear the knife well:" that is to say, they must be cut sparingly—one-third of each shoot being sufficient. In pruning the Hybrid Perpetuals, two-thirds of each shoot may be cut off—reducing the number of eyes to five or six, or to three if quality is more to be desired than quantity. Gardeners make it a rule that the stronger the shoot the less severely should it be pruned. All decayed and weak wood should be cut clean away, also shoots which grow cross or inwards. The cut in each instance must be made as close as possible to the topmost bud without injury to it. In pruning bush roses a beautiful effect is produced by allowing a strong central shoot to grow unchecked, nipping off its lower lateral buds until it forms a standard, then pruning the surrounding shoots to one-half the height of the central shoot: by so doing the tree in blooming time will form quite a pyramid of roses. The writer saw a bush of common cabbage roses pruned thus in a cottager's garden in Kent, and it was literally covered with blooms—an object of beauty, better seen than described.

When the rose-garden has been fairly started—the planting and pruning all done—it will be a pleasurable occupation to give it the little attention it needs. The watering must be given as directed, using soft water or fresh household sewage well diluted with soft water, from the time of planting to the end of July. For watering overhead use clean soft water, and apply it vigorously with a syringe. If this is done regularly it will save the trees from green-fly, and in the neighbourhood of towns it will serve to counteract in some measure the baneful effects of smoke and dust.