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THE
ROSE-AMATEUR'S GUIDE:

CONTAINING AMPLE DESCRIPTIONS OF ALL THE FINE

LEADING VARIETIES OF ROSES

Regularly Classed in their respective Families.

Their History and Mode of Culture.

BY

THOMAS RIVERS.
||

EIGHTH EDITION

ENLARGED, CORRECTED, AND IMPROVED.

LONDON:

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PREFACE
TO
THE EIGHTH EDITION.



WHEN I penned the first edition of this little work, I must confess that I was not very sanguine as to its favourable reception ; but, to my agreeable surprise, I found myself a successful author, and have now an eighth edition called for by a generous public. I have, therefore, in the following pages, endeavoured to evince my gratitude by making my book not an empty echo to its title, but a *true guide* ; consequently, many varieties of roses described in former editions, on account only of their novelty or other characteristics rather than for their beauty, are now omitted, and those only that are *really* beautiful and strictly worthy the attention of the Rose Amateur are dilated upon : I have, in fact, profited by time and experience. A multitude of new roses have been introduced since the publication of the first edition ; and various modes of culture have suggested them-

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selves. From the former I have culled the choicest and the sweetest, bidding adieu to many old varieties, on account of their being surpassed by some that are new, but retaining those old roses not to be surpassed, i. e. those that are absolutely perfect in their form and colouring, which will all be found in their places: for it would indeed be unjust to neglect a good old friend with sterling qualities.

In cultivation much improvement has taken place; and rapid progress has been made in the culture of roses in pots: under this head I have given fully the results of my experience. In the articles on propagation, the fruits of more than thirty pleasant years' unceasing attention are given with candour. I have nothing withheld, nor, I trust, aught forgotten.

A practical cultivator, in writing on cultivation, labours under a disadvantage; he almost obstinately supposes that everyone must know *something* relative to these, with him, every-day operations: he is apt, therefore, not to go sufficiently into detail. I have strenuously combated this feeling, and humbly trust that what I have written on that subject will be found sufficiently explicit.

ROSE HILL, SAWBRIDGEWORTH, HERTS:

May 1863.

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THE
ROSE-AMATEUR'S GUIDE.

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THE SUMMER ROSE GARDEN.

Erratum.

P. 103, lines 17 and 18, *omit* Madame Clemence Joigneaux.

... the rosy fingers of Aurora, the rosy arms of the Nymphs, the cheeks of Venus tinted with roses.

The rose is useful to the sick; she braves the duration of years; agreeable even in decay, she preserves the perfume of her youth.

What shall I say of her origin? When the Sea formed from her froth, and displayed on her waves, the beautiful Venus, brilliant with dew, — when Pallas sprang armed from the brain of Jupiter, the earth brought forth this admirable plant, a new masterpiece of nature. Eager to hasten her blooming, the gods watered her with nectar, and then this immortal flower elevated herself majestically on her thorny column.

The Queen of Flowers.*

* This pretty appellation is no new creation: more than 2000 years ago Sappho wrote: 'If Jupiter wished to give to the flowers a Queen, the rose would be their Queen.'

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THE
ROSE-AMATEUR'S GUIDE.

PART I.

THE SUMMER ROSE GARDEN.

THE ROSE, *Anacreon*, Ode 51.

Friends! form your accents with mine, in singing the season of flowers, and the rose of spring.

The rose is the sweet perfume which the mouths of the gods exhale; the joy of mortals, the loveliest ornament of the Graces in the flowery season of love, and the dearest delight of Venus.

The rose is the object of the songs of the poets, the favourite plant of the Muses.

Though she wounds us with her thorns, we gather her with pleasure. What delight to hold this flower consecrated to love, and to breathe its sweet odours!

Ah! what should we be without the rose?

Our poets sing of the rosy fingers of Aurora, the rosy arms of the Nymphs, the cheeks of Venus tinted with roses.

The rose is useful to the sick; she braves the duration of years; agreeable even in decay, she preserves the perfume of her youth.

What shall I say of her origin? When the Sea formed from her froth, and displayed on her waves, the beautiful Venus, brilliant with dew, — when Pallas sprang armed from the brain of Jupiter, the earth brought forth this admirable plant, a new masterpiece of nature. Eager to hasten her blooming, the gods watered her with nectar, and then this immortal flower elevated herself majestically on her thorny column.

The Queen of Flowers.*

* This pretty appellative is no new creation: more than 2000 years ago Sappho wrote: 'If Jupiter wished to give to the flowers a Queen, the rose would be their Queen.'

THE PROVENCE, OR CABBAGE, ROSE.

(ROSA CENTIFOLIA.)

Rosier Cent Feuilles.

THIS rose has long and deservedly been the favourite ornament of English gardens; and if, as seems very probable, it was the hundred-leaved rose of Pliny, and the favourite flower of the Romans, contributing in no small degree to the luxurious enjoyments of that great people, it claims attention as much for its high antiquity as for its intrinsic beauty. 1596 is given by botanists as the date of its introduction to our gardens. That 'Prince of gardeners,' Miller, says that it is the prettiest of all roses; and this idea still prevails to a great extent in the agricultural districts of England, where, in the farm and cottage gardens, the Cabbage Rose and the Double Wall-flower are the most esteemed inmates; forming in their turns, with a sprig of rosemary, the Sunday *bouquet* of the respectable farm-servant and cottager.

The groves of Mount Caucasus are said to be its native places of growth, and also Languedoc and Provence; but the claims of these latter have been disputed. I lately wrote to a very old rose amateur in France for information on this point. He informs me that the species with single flowers is found in a wild state in the southern provinces;

it is therefore very probable that it was called the Provence Rose from growing more abundantly in that province: it has now, however, quite a different name in France, for it is called the 'Rose à Cent Feuilles,' from the botanical name, *Rosa centifolia*, or Hundred-leaved Rose. I must here confess that, when I was a young rose-fancier, this name often misled me, as I was very apt to think that it referred to the Scotch and other small and thickly-leaved roses, not for a moment supposing that the term was applied to the petals or flower-leaves.

Hybrid Roses, between this and *Rosa gallica*, are called Provence Roses by the French amateurs of the present day. Our Provence, or Cabbage, Rose is exceedingly varied in the form and disposition of its petals. In the following paragraphs I have confined myself to a description of those only that partake largely of the character of the common Cabbage, or Provence, Rose, and that are worthy of cultivation; the latter name, I find, is not used by some recent writers in the 'Gardeners' Chronicle' and elsewhere: they write 'Provins,' the name applied in France, as I have said in another place, to the *Rosa gallica*, a semi-double variety of which is cultivated for the purpose of making rose-water largely in the environs of Provins, a small market-town sixty-six miles to the east of Paris, on the road to Nancy. By early writers on gardening our rose is called *Rosa*

Provincialis, or the Provence Rose. No one seems to know why it was thus named, its origin being entirely lost. Let us, therefore, assume that we owe it to the Provençal poets, the gay troubadours, who, with chivalric liberality, gave us their songs and their roses; and let us not lose its beautiful poetic name: it is, indeed, worthy of it.

The Crested Provence, Crested Moss, or *Rosa cristata*—for it is known by these three names—is said to have been discovered growing from the crevice of a wall at Fribourg in Switzerland. No rose can be more singular and beautiful: the buds before expansion are so clasped by its fringed sepals, that they present a most unique and elegant appearance totally unlike any other rose.

When the flower is fully expanded this peculiar beauty vanishes, and it has merely the appearance of a superior variety of the Provence Rose. It should here be mentioned that, if grown in a poor soil, its buds often lose their crest, and become plain like those of the latter. As a standard, this rose is very graceful, its large flowers and buds drooping from their weight.

The Dutch, or large Provence, is exactly like the Common, or Cabbage, Provence, and equally fragrant, but very much larger; this is a fine rose for forcing.

La Reine de Provence really deserves to be the queen of this division. Its large and finely-shaped globular flowers have a good effect when

suspended from a standard; these are of a pale lilac rose-colour, distinct and beautiful. The Scarlet Province is an old variety, one of those misnomers that in flowers so often lead to disappointment: it was probably the first Provence Rose that made an approach to scarlet; but the faint carmine of its flowers is very far removed from that rare colour among roses.

The Unique Provence is a genuine English rose, which was found by Mr. Grimwood,* then of the Kensington Nursery, in some cottage-garden, growing among plants of the common Cabbage Rose. This variety was at first much esteemed, and plants of it were sold at very high prices. Most probably this was not a seedling from the Old Cabbage Rose, as that is too double to bear seed in this country, but what is called by florists a sporting† branch or sucker. In

* Mr. Grimwood, when on his annual business journey in 1777, perceived a beautiful white rose growing in the garden of Mr. Richmond, a baker, living near Needham Market, Suffolk: on inquiry, he found that it had been planted there by a carpenter, who had found it growing near, or in a hedge a short distance from, the house of a Dutch merchant, which he had been repairing. Mr. G. asked for a branch, but obtained the entire plant, which Mr. Richmond willingly gave him. On his next journey, the following year, Mr. Grimwood made him a present of a handsome silver cup, on which was engraved a figure of the rose: this kind remembrance Mr. Richmond most carefully preserved till his death.—*Roses*, by H. C. Andrews, London, 1805, 4to.

† A term used to denote any portion of a plant departing from the character the entire plant should sustain. Thus, one

describing this and the next division I shall have occasion to notice more of these spontaneous deviations. The Striped Unique is one; for this was not raised from seed, but, a flowering branch of the Unique Provence having produced striped flowers, plants were budded from it, and the variety was 'fixed,' as the French florists term it. However this is certainly *not fixed*; for it is a most inconstant rose, in some soils producing flowers beautifully striped, in others entirely red, and in the soil of this nursery most frequently pure white.

The Dwarf Provence Roses, Rose de Meaux, and the Pompone Rose, are among the oldest of our garden roses, and known by every child brought up in a garden, as they are 'so early and so pretty.' Formerly two or three varieties of the Pompone Rose were cultivated, but they differed only in name. The Rose de Meaux forms a pretty edging, and is desirable for its spring-gladdening flowers. Spong's Rose is of this group, with rather larger flowers: it forces well, and is a pretty rose.

There are no new Provence Roses, for, like most of the summer roses, they are not esteemed as formerly, owing to their blooming but once in the season; still a *bouquet* of Old Cabbage Roses,

stem of a carnation, which should give striped flowers uniform with the rest, will often produce plain-coloured flowers; it is then said 'to sport.'

or of the Crested, is above all others most fragrant and beautiful.

Culture and Pruning.

There are but two ways in which Provence Roses can be employed as ornaments to the flower-garden — as standards for the lawn, and as dwarfs for beds. Standards of some of the varieties, if grown on a strong clayey soil, form fine objects of ornament, as their large globular flowers are so gracefully pendent. In this description of soil also, if grown as dwarfs, they will not flourish unless they are worked on the Dog Rose, but in light sandy soils it will be advisable to cultivate them on their own roots; the freedom with which they grow in the light sandy soils of Surrey points out this method of culture on such soils as the most eligible. In pruning, they require the free use of the knife: every shoot should be shortened to three or four buds. If not pruned in this severe manner, the plants soon become straggling and unsightly. To prolong their period of flowering, half the shoots may be pruned in October, the remainder at the end of April. In poor soils, they should have annually, in November, a dressing of rotten manure on the surface of the bed, to be washed in by the rains of winter.

THE MOSS ROSE.

(ROSA CENTIFOLIA MUSCOSA.)

Rosier Cent Feuilles Mousseuse.

THE Moss Rose, or Mossy Provence Rose, is most probably an accidental sport or seminal variety of the common Provence Rose, as the Old Double Moss Rose, which was introduced to this country from Holland in 1596, is the only one mentioned by our early writers on gardening. If it had any claims to be ranked as a botanical species,* the Single-flowering Moss Rose would have been the first known and described; but the Single Moss, as compared with the Double, is a new variety. Some few years since a traveller in Portugal mentioned that the Moss Rose grew wild in the neighbourhood of Cintra; but, most likely, the plants were stragglers from some garden, as I have never seen this assertion properly authenticated. The origin of the Double Moss Rose, like that of the Old Double Yellow Rose (*Rosa sulphurea*), is therefore left to conjecture; for gardeners in old times did not publish to the world the result of their operations and discoveries. As regards the Moss Rose I regret this, for it would be very interesting to know

* Miller says, with a most remarkable simplicity, that he thinks it must be a distinct species, as it is so much more difficult of propagation than the common Provence Rose.

how and where this general favourite originated; probably when first noticed, gardening was of such small consideration, that the discovery of a rose, however remarkable, would not be thought worth registering. That it is merely an accidental sport of the Common Provence Rose is strengthened by the fact, that plants produced by the seed of the Moss Rose do not always show moss: perhaps not more than two plants out of three will be mossy, and as I have often proved, those that are not so are most evidently pure Provence Roses, possessing all their characters. To show, also, the singular propensity of the varieties of *Rosa centifolia* to vary, I may here mention that the common Moss Rose often produces shoots entirely destitute of moss. In the summer of 1836 I observed a luxuriant branch of the Crimson, or Damask, which is generally more mossy than the Old Moss Rose, having a remarkable appearance. On examination I found it nearly smooth. The next season it had entirely lost its moss, and had produced semi-double flowers, the exact resemblance of the Scarlet Provence. The White Moss is another instance of this singular quality, for that originated from a sporting branch; the Mossy de Meaux is also a curious deviation, the history of which will be given in the descriptive enumeration following; the Crested Moss, or Provence, is another case in point. It seems, therefore, very feasible that

the Provence Rose, from being cultivated in Italy through so many ages, produced from seed, or more probably from a sporting branch, the Double Moss Rose, that is, a Double Cabbage, or Provence, Rose, covered with that glandular excrescence which we term moss; this branch or plant was propagated, and the variety handed down to us is perhaps as much admired in the present day as when it was first discovered. These roses always have been, and I hope always will be, favourites: for what can be more elegant than the bud of the Moss Rose, with its pure rose-colour, peeping through that beautiful and unique envelope?

The Blush Moss is a beautiful variety, of the delicate blush of that well-known rose, the Celestial, and so exactly intermediate between the White Moss and the Common, that it is quite necessary in a collection. The Crimson or Damask Moss, sometimes called the Tinwell Moss, was originated in the garden of a clergyman at Tinwell in Rutlandshire; from thence sent to Mr. Lee of Hammersmith. As it was one of the first deep-coloured Moss Roses, it was much esteemed, and plants of it were sold at one guinea each. This is a more luxuriant grower than the Old Moss; its branches, leaves, and buds are also more mossy. It is an excellent rose for beds; for if its shoots are pegged to the ground with small hooks, the surface is soon covered with its luxuriant foliage

and flowers. For this purpose it is better on its own roots, as budded plants so treated would throw up too many suckers. The French Crimson Moss is deeper in colour, and much more double than the preceding, not such a luxuriant grower but one of the best Moss Roses we have. *Éclatante* is a Moss Rose quite worthy of notice; for it is so vigorous in its growth, that it soon forms a fine tree: its colour is remarkably bright.

Moussue Partout is indeed all over moss; for its leaves, branches, and buds are thickly covered. The flowers of this singular variety are much like the common Moss Rose. The *Prolific Moss* is not the *Prolifère* of the French, but a dwarf variety of the common Moss, and a most abundant bloomer. This is known by the French florists as the *Minor Moss*: it is a most excellent variety to keep in pots for forcing. The *Pompone Moss*, or *Mossy de Meaux*, has for some years been a great favourite. This rose was found by Mr. Sweet, of the Bristol Nursery, at a garden at Taunton, Somersetshire, in 1814. He obtained possession of the plant for five pounds; and afterwards distributed the young plants at one guinea each. It was most probably an accidental sport from the *Old Rose de Meaux*, and not from seed, as that rose is too double to bear seed, in this country: this is one of the prettiest of roses, and one of the first to make its appearance in June, gladdening us with its early clusters of small and

finely-shaped flowers. It is not well adapted for a standard; for, when grafted or budded, it is but a short-lived plant, at least in the generality of soils; on its own roots, in light rich soils, it may be grown in great perfection.

The Luxembourg Moss was raised from seed in the Luxembourg Gardens. It is evidently much tinged with the dark colouring of some variety of *Rosa gallica*, and is really a good crimson Moss Rose. This is most certainly a desirable variety, of great luxuriance of growth, forming a fine standard: it will probably be the parent of a dark Moss Rose still more splendid, as it bears seed freely. It is remarkably well adapted for a bed when grown on its own roots, as it is a free grower in all soils, and will bloom and do well even in the north of Scotland.

The White Bath or Clifton Moss is a favourite and beautiful rose: this owes its origin to a sporting branch of the Common Moss, which was found in a garden at Clifton, near Bristol, about forty years since, from whence it was distributed. The Old White Moss was discovered in the nursery of Mr. Shailer, at Battersea, early in the present century; it originated on a sporting shoot from the Old Moss Rose, which gave white or nearly white flowers instead of rose-coloured; buds were taken from this shoot and the variety perpetuated. This has not so much moss as the Clifton, and is not pure white, but inclining to a

pale flesh-colour; it is also much more delicate in habit.

Celina is one of the very best dark crimson Moss Roses we yet possess; its foliage has a peculiarly dark glossy-green tint, quite distinct; its flowers are large and double, but not quite full to the centre; colour very brilliant, but deep crimson, in some seasons slightly tinged with purple: this has to a certain extent superseded the Luxembourg Moss, which only a few years since was our only deep-coloured Moss Rose. Its habit is not quite so robust as that of the latter, which in some soils is almost too much so, making shoots six feet in length in moist seasons. We have now also what was at one time thought to be impossible, viz. the Old Rose Unique mossed; this is called Moss Unique de Provence. I cannot learn its origin; if from seed or otherwise; but am inclined to think it is a sport from our old favourite the Unique Rose; its habit is similar and equally robust; its flowers of the same pure white, and blooming in the same large clusters; its flowers are however often imperfect.

In Comtesse de Murinais we have a vigorous white Moss Rose, a most remarkable variety, evidently resulting from a cross with the Damask Rose, of which it largely partakes in its foliage and general habit; this is so robust that young plants often make shoots more than six feet in length, of the thickness of a stout riding-

cane. Its flower buds are well mossed, but its flowers are not very double; they are large, very slightly tinged with blush when they first open, and soon change to pure white. I attach some value to this rose, for I anticipate that, by crossing it with the Perpetual White Moss, seed may be easily obtained, which will, I trust, in the course of time, give us some autumnal-blooming white Moss Roses.

Moussue Presque Partout is a very pretty brilliant rose-coloured rose, its leaves and branches are nearly covered with moss, and it has not that blighted appearance peculiar to its congener Moussue Partout. In the variety Princesse Adelaide, raised from seed by M. Laffay, we have a proof of the effect of hybridising roses, for this is most evidently and distinctly a hybrid Bourbon rose, with its flower buds rather abundantly covered with moss; in fact, a hybrid Moss Rose of a new race; its habit is remarkably vigorous, foliage very large and beautiful, flowers well shaped, and in general they open freely; their colour in dry weather is a very lively pink, in cloudy moist weather a bright rose. This variety will form a fine pillar rose, as it will in rich soils make shoots from six to eight feet long in one season, consequently there cannot be a finer object for a column; another step, and we should have had in this a Mossy Bourbon Rose, blooming in autumn. Alas! in hybridising Moss Roses it is

‘le *dernier* pas qui coûte,’ and not ‘le premier.’ Thus one more remove from the Moss Rose, and a nearer approach to the Bourbon, would have probably given us merely a mediocre Bourbon Rose, with some very faint signs of its mossy parentage.

There are but few new summer Moss Roses worthy of attention, although, as usual, there are plenty raised by the French florists; they are, however, only remarkable for their well-sounding names. I have imported for several years every new Moss Rose raised in France, to the amount of nearly one hundred varieties, and have found but few worthy of cultivation. Among these, Lane’s Moss, or ‘Lanei,’ raised from seed by M. Laffay, is a fine globular and very double rose, with flowers very fragrant and of a rich rosy crimson tinted with purple; its habit is remarkably vigorous, more so than that of any other Moss Rose, and a large bed planted with it on its own roots would have a fine effect. Princesse Royale, like the above, is not a very new rose, but exceedingly neat and pretty, as its flowers are light pink and beautifully shaped; in habit it is very vigorous. Gloire des Mousseuses and Marie de Blois are two very large double roses of remarkably vigorous growth; the former is the largest of all Moss Roses; in colour they differ but slightly from the Old Moss Rose. Baron de Wassenaër is also a new, large, and finely-shaped rose, deeper in colour than the preceding, and approaching to

carmine: this variety is well worthy of cultivation. L'Eblouissante, of a brilliant crimson, and Unique Nouvelle, of a deep purplish crimson mottled, are two good and distinct new Moss Roses.

Culture and Pruning.

Moss Roses, when grown on their own roots, require a light and rich soil; in such soils they form fine masses of beauty in beds on lawns. The varieties best adapted to this purpose are the Common Moss, the Prolific, the Luxembourg, the Crimson, and Lane's Moss. Plants of these are procurable at a moderate price, and, by pegging down their shoots with hooked sticks, the surface of the bed will be covered with a mass of foliage and flowers. They require the same severe pruning as the Provence Rose. To have a succession of flowers on the same bed, half of the shoots may be shortened in October, the remainder the beginning of May, pruning closely as recommended for the Provence Roses. By this method the blooming season may be prolonged from a fortnight to three weeks. They should have an abundant annual dressing of manure on the surface in November, and the bed lightly stirred with the fork in February. In cold and clayey soils they in general succeed much better worked on the Dog Rose, forming beautiful standards. I have ascertained that they establish themselves

much better on short stems, from two or three feet in height, than on taller stems, as the stem increases in bulk progressively with the head, and the plants will then live and flourish a great many years.

Raising Varieties from Seed.

To raise Moss Roses from seed is a most interesting employment for the genuine rose amateur; such a pleasing field is open, and so much may yet be done. The following directions will, I hope, assist those who have leisure, perseverance, and love for this charming flower. A plant of the Luxembourg Moss and one of the Celina Moss should be planted against a south wall, close to each other, so that their branches may be mingled. In bright, calm, sunny mornings in June, about ten o'clock, those flowers that are expanded should be examined by pressing the fingers on the anthers; it will then be found if the pollen be abundant; if so, a flower of the former should be shaken over the latter; or, what perhaps is better, its flower-stalks should be fastened to the wall, so that the flower will be kept in an erect position; then cut a flower of the Luxembourg Moss, strip off its petals with a sharp pair of scissors, and place the anthers firmly but gently upon a flower of the Single Crimson, so that the anthers of each are entangled: they will keep it in its position: a stiff breeze will then scarcely

remove it. The fertilising will take place without further trouble, and a fine hip full of seed will be the result. To obtain seed from the Luxembourg Moss, I need scarcely say that this operation must be reversed. A wall is not always necessary to ripen seed; for in dry soils and airy exposed situations, the above Moss Roses bear seed in tolerable abundance. The treatment of the hips, sowing the seed, and the management of the young plants, as applicable to all, is given at the end of the First Part.

THE FRENCH ROSE.

(ROSA GALLICA.)

Rosier de Provins.

THE French Rose (*Rosa gallica* of botanists) is an inhabitant of the continent of Europe, growing abundantly in the hedges of France and Italy. In the 'Floræ Romanæ' of Sebastiani, published at Rome in 1818, this rose, *Rosa sempervirens*, and *Rosa canina*, are said to be the only roses growing naturally in the Papal States. It was one of the earliest roses introduced to our gardens, and is supposed by some to be the *Rosa Milesiana* of Pliny, so named from its growing abundantly near Miletus in Asia Minor: it has also historical claims of much interest; for the semi-double

bright-red rose grown in Surrey for the London druggists, and still cultivated extensively in the environs of Provins, to make their celebrated conserve of roses, is, according to a French author,* the red rose, the ancient badge of the House of Lancaster. 'Somewhere about the year 1277, a son of the King of England, Count Egmond, who had taken the title of Comte de Champagne, was sent by the King of France to Provins, with troops, to avenge the murder of the mayor of the city, who had been assassinated in some tumult. He remained at Provins for a considerable period; and on his return to England he took for his device the red rose of Provins, which Thibaut, Comte de Brie, had brought from Syria, on his return from a crusade some years before.' The white rose of the House of York was probably our very old semi-double variety of *Rosa alba*.

Our Provins rose is associated with recollections of the unfortunate House of Bourbon; for when Marie-Antoinette came to France in 1770 to espouse Louis XVI., she passed through Nancy, a city about 160 miles to the south-east of Provins, the inhabitants of which presented her with a bed strewed with leaves of the Provins rose. Alas! her bed was twenty years afterwards more abundantly strewed with thorns by the

* *L' Ancien Provins, par Opoix.*

inhabitants of Paris. Charles X. also, on arriving at Provins on his return from the camp at Luneville, Sept. 21, 1828, was received in state by the authorities, who deputed twelve young ladies to present him with the flowers and conserves of roses.

The inhabitants boast that no other roses, even when the same variety is employed, make conserve equal to those grown in the environs of their town: they assert that, towards the end of the seventeenth century, it was sold in India for its weight in gold. 1596 is given by botanists as the date of the introduction of *Rosa gallica* to England; and, owing to its bearing seed freely, it has been the parent of an immense number of varieties, many of the earlier sorts being more remarkable for their expressive French appellations than for any great dissimilarity in the habits or colours. All the roses of this group are remarkable for their compact and upright growth; many for the multiplicity of their petals, and tendency to produce variegated flowers. Some of these spotted and striped roses are very singular and beautiful.

The formation of the flower, in many of the superior modern varieties of *Rosa gallica*, is very regular; so that most probably this family will ultimately be the favourite of those florists who show roses for prizes in the manner that dahlias are now exhibited; that is, as full-blown flowers,

one flower on a stem; for they bear carriage better, when fully expanded, than any other roses. In France, this is called the 'Provins Rose;' and some varieties of it are classed in a separate division, as 'Agathe Roses.' These have curled foliage, and pale-coloured compact flowers remarkable for their crowded petals. That very old striped rose, sometimes improperly called the 'York and Lancaster' Rose, seems to have been one of the first variegations of *Rosa gallica*, as it is mentioned by most of our early writers on gardening. It is properly 'Rosa mundi:' the true York and Lancaster Rose is a Damask Rose.

To describe a selection of these roses is no easy task, as the *plants* differ so little in their habits, and their flowers, though very dissimilar in appearance, yet offer so few prominent descriptive characteristics. Only a few years since, varieties of this group were reckoned by the hundred. The once-famed collection of the Messrs. Loddiges, of Hackney, consisting, it was said, of 2,000 sorts of roses, owed its fame to nominal varieties of this group. The names were pleasing to the ear; but the eye searched in vain for distinct characters in the flowers. Only a few of these roses are now worth retaining, remarkable for their fine shape and capability of being exhibited as 'show roses,' *i. e.* as single blooms, in the manner of dahlias and other flowers. To describe them in as few words

as possible, it will perhaps be the most eligible way to give their descriptions in groups, thus:—For fine crimson roses we may take Boula de Nanteuil, D'Aguesseau, Gloire de Colmar, Grandissima, Kean, Latour d'Auvergne, Ohl, Schönbrun, Triomphe de Jaussens; these are large, very double, and finely-shaped crimson roses, of slightly different shades. Kean approaches to scarlet, and is really very beautiful.

A group of fine rose-coloured varieties may be formed with Letitia, Duchess of Buccleuch, Napoleon, Prince Regent, Duc de Valmy, Pharencus, and others: these and other summer roses are more valued in Scotland, where they bloom late in the summer and endure a longer time in bloom, than in England; and as they are not therefore adapted for general culture, it will not be judicious, in the present advanced state of rose culture, to burden these pages with a long list of varieties which are nearly obsolete. Autumnal roses must very shortly to a great extent supersede the greater portion of the summer roses in English gardens, with the exception of a few select varieties of the Moss Rose.

Variegated Roses form an interesting section of this family. To that very old semi-double striped rose, growing almost wild in some gardens, and figured in 'Les Roses, par Redouté,' under the name of *Rosa gallica versicolor*, and known

in this country as *Rosa mundi*,* we owe all our striped roses of this family. Our Village Maid or La Villageoise, now an old variety, was one of the earliest proceeds from the above: this is now a well-known, and, in some seasons, a very beautiful striped rose. *Œillet Parfait* is a rose raised in the west of France, and given out to the world before its qualities were appreciated. It is a hybrid between the Damask and the French rose, so exactly like a carnation in its beautifully-striped flowers as scarcely to be distinguished from one: its ground colour is pale blush, striped distinctly with dark red and crimson: no other variegated rose approaches it in beauty.

Perle des Panachées, with flowers of a pure white, striped with lilac and red, is an acquisition; and *Tricolor de Flandres*, a new and very double striped rose, may be retained.

THE DWARF FRENCH ROSE.

THE Burgundy Rose, a very old variety, holds the same place among French Roses as the *Rose de Meaux* among the Provence: it is a pretty little rose, very double, and of a bright rose-colour; useful as an edging rose, and interesting

* How this name came to be attached, I am at a loss to conjecture. Redouté says, 'Les Anglais l'ont appelée *Rosemonde* du nom de la belle et spirituelle maîtresse de Henri II.'

from its having been so long in our gardens the favourite of every child gardener.

Culture and Pruning.

Most of the varieties of *Rosa gallica* are robust and hardy, and flourish equally as bushes on their own roots, grafted or budded on short stems, or as standards; but they cannot be recommended for tall standards, as their growth is too compact to be graceful. To grow them fine for exhibition as single blooms or 'show roses,' the clusters of buds should be thinned early in June, taking at least two-thirds of the incipient flowers from each; manure should also be laid round their stems on the surface, and manure water given to them plentifully in dry weather. With this description of culture, these roses will much surpass anything we have yet seen in this country.

Although the varieties of this group are summer roses only, their period of flowering may be prolonged by judicious pruning, and for this purpose two trees of each variety should be planted, one to be pruned in October, the other early in May, or just when the buds have burst into leaf; these will give a regular succession of flowers. In pruning, cut out with a sharp knife all the spray-like shoots, and then shorten, to within six or eight buds of their base, all the strong shoots: by such I mean those that are above fifteen

inches in length; the weak shoots cut down to two or three buds. This is the pruning required by the Alba, Damask, and Hybrid Provence roses.

Raising Varieties from Seed.

To raise French roses from seed, they should be planted in a warm, dry border, sloping to the south, in an open, airy situation—the shade of trees is very pernicious to seed-bearing roses. The following kinds* may be selected, as they bear seed freely:—The Tuscany rose, a very old variety, with rich, deep crimson, semi-double flowers; also Ohl and Latour d'Auvergne. The two latter should have their flowers fertilised with the pollen of the Tuscany Rose, and some fine crimson roses will probably be raised. The Village Maid and Cœillet Parfait are the most eligible to raise striped roses from; if their flowers are deficient in pollen, they should be fertilised with those of *Rosa mundi*.

THE HYBRID PROVENCE ROSE.

(*ROSA CENTIFOLIA HYBRIDA.*)

THESE beautiful roses are exactly intermediate between the French and the Provence Rose,

* Some of the roses recommended for seed-bearing are old varieties, which may be procured from any rose nursery.

partaking, almost in an equal degree, of both parents. They have upon the long and graceful shoots of the Provence the close and more dense foliage of the French Rose; and in some of the varieties, the pale and delicate colouring of the first enlivened by the rich and deep crimson hues of the latter. The origin of these roses may be soon attested; for if the Single Moss, or Provence Rose, is fertilised with the farina of *Rosa gallica*, hybrid Provence roses will be produced, agreeing in every respect with the above description.

Among the most superior varieties is *Blanche-fleur*, of the most delicate flesh-colour, or nearly white; very distinct, and even now one of the finest summer roses known.

Rose Devigne is a delicate blush rose, one of the finest roses of this colour known; it is most luxuriant in habit, and forms a fine pillar rose.

Princesse Clémentine is one of our finest white roses, with flowers very large, perfectly double, and well shaped, and not liable, like our old favourite damask rose, *Madame Hardy*, to come with a bud in the centre of the flower: in habit it is most robust, and well adapted to train up a column or pillar, which, when covered with its snowy and large flowers, may perhaps, without affectation, be called a pillar of purity.

Comte Plater is a unique rose, with large and

very double flowers, finely shaped, of a delicate cream, tinted with fawn-colour, which is placed in this family, but perhaps has quite as many claims, like Rose Devigne and some others, to be grouped with the hybrid China roses. Like botanists, rose cultivators are often posed by the freaks of Nature, who seems to delight in breaking into every artificial system, and to pay no more respect to the classification of the botanist than to that of the more humble florist.

Within the last twenty years how many plants have been named and unnamed, classed and re-classed—Professor A. placing it here, and Dr. B. placing it there! I can almost imagine Dame Nature laughing in her sleeve when our philosophers are thus puzzled. Well, so it is in a measure with roses; a variety has often equal claims to two classes. First impressions have perhaps placed it in one, and the rival amateurs should let it remain: for the classification of roses, although in almost every case imperfect, owing to the unbounded fertility of nature, is necessary; rose-culture is rendered by it more interesting and attractive.

Hybrid Provence roses are very robust and hardy, useful to the rose amateur, as serving to form a most delicate group of soft colours: they also make admirable standards, as the branches of most of the varieties are inclined to be spreading, diffuse, and, of course, graceful: the pruning

recommended for the French Rose may be applied to all of this family.

The most free seed-bearing rose of this family is the Globe Hip, the flowers of which should not be fertilised if pure white roses are desired. Some few years since I raised a plentiful crop of seedlings from this rose, fertilised with the Tuscany: nearly all my plants produced semi-double blush and rose-coloured flowers.

It will, I feel assured, repay the amateur if he will plant Comte Plater, or Emerance, against a south wall, and fertilise their flowers with the pollen off *Rosa Harrisonii*, or the Persian Yellow: if seed can be procured, some novel yellow roses must be originated.

THE HYBRID CHINA ROSE.

(*ROSA INDICA HYBRIDA.*)

Rosier Hybride de Bengale.

THE superior varieties of this fine division give a combination of all that is or can be beautiful in summer roses; for, not only are their flowers of the most elegant forms and colours, their foliage of extreme luxuriance, but their branches are so vigorous and graceful, that perhaps no plant presents such a mass of beauty as a fine-grown hybrid China rose in full bloom. They owe their

origin to the China, Tea-scented Noisette, and Bourbon roses, fertilised with the French, Provence, and other summer roses, and also to the latter crossed with the former—the seeds of such impregnated flowers producing hybrid China roses. These have in many cases resulted from accident, but latterly from the regular fertilising process, as mules or hybrids have been raised from well-known parents.

In England but few varieties have been originated, as the common China rose does not in general ripen its seeds sufficiently for germination. The parents of Brown's Superb Blush, an old English hybrid, raised by the late Mr. Charles Brown, of Slough, one of our most scientific and persevering cultivators, was the old Tea-scented rose, *Rosa indica odorata*, impregnated with some hardy summer rose. Rivers's George the Fourth is also an English rose; but as this came by accident, its origin is not so well ascertained. *Rosa Blairii*, two varieties, Numbers 1 and 2, are also English, and raised from the yellow China, impregnated with some variety of hardy rose. All these roses have the true characters of the family: leaves smooth, glossy, and sub-evergreen; branches long, luxuriant, and flexible. They give a long continuance of bloom, but they never put forth secondary or autumnal flowers. This is a most peculiarly distinguishing trait, and an interesting fact. Impregnate a Bourbon, China, or Noisette

rose, all abundant autumnal bloomers, with the farina of a French or Provence rose, and you entirely take away the tendency to autumnal blooming in their offspring. They will *grow* vigorously all the autumn, and give a *long*, but not a *secondary* series of flowers. Some of these hybrid China roses produce seed abundantly, which is rather a remarkable feature, as so few hybrid plants are fertile.

Hybrids produced from the French rose impregnated with the China rose are not of such robust and vigorous habits as when the China rose is the female parent; but, perhaps, this is an assertion scarcely borne out by facts, for the exceptions are numerous, and, like many other variations in roses and plants in general, seem to bid defiance to systematic calculations. By some cultivators the roses of this division have been much more divided than in my catalogue, forming 'Hybrid Noisettes,' 'Hybrid Bourbons,' &c. &c.; but as these all owe their origin to the common China rose, their offspring may with justice be called Hybrid China roses. I have, however, found the Hybrid Bourbon roses distinct in their characters, and they now form a group, or division, in the catalogue.

Those that have been raised from Noisette roses have a tendency to produce their flowers in clusters; those from Bourbon roses have their leaves thick, leathery, and round, forming a most dis-

tinct group; those from the Tea-scented have a delicate and grateful scent; but all have those distinguishing family traits before given, and accordingly they group beautifully. It is a difficult task to point out the best in this division, as they are nearly all well deserving of cultivation. However, by making a few remarks, such as cannot be given in a descriptive catalogue, I may perhaps be able, in some measure, to direct the choice of amateurs to those most worthy their notice.

Brennus : this very superb rose will form a finer object as a pillar rose* or standard than as a bush; its luxuriant shoots must not be shortened too much in winter pruning, as it is then apt to produce an abundance of wood, and but very few flowers. This rose often puts forth branches in one season from eight to ten feet in length: if these are from a dwarf, and are fastened to a wooden or iron stake, and *not shortened*, the following season they will form a pillar of a beauty but rarely equalled. Blairii, No. 2, a rose not so much known as it deserves to be, is a very distinct and unique variety, so impatient of the knife, that if pruned at all severely, it will scarcely put forth a flower: it is perhaps better as a pillar rose than grown in any other mode,

* All the roses to which this term is applied make very long and flexible shoots, well adapted for training up a column, thus forming a pillar of roses.

as it shoots ten or twelve feet in one season, and its pendulous clusters of flowers, which are produced from these long shoots unshortened, have a beautiful effect on a pillar.

Rivers's George the Fourth is still, perhaps, one of the best of this family: it was raised from seed by myself upwards of thirty years ago, and contributed probably more than anything to make me an enthusiastic rose cultivator.*

As with French roses, the new varieties of this family are too numerous for detailed descriptions; but to one variety too much attention cannot be directed, and this is Chénédolé, so called from a member of the Chamber of Deputies for Calvados, a district in Normandy, where this fine rose was raised. It has often been asserted that no rose could compete with Brennus in size and beauty; but I have no hesitation in saying that, in superior

* I hope to be pardoned the digression, but even now I have not forgotten the pleasure the discovery of this rose gave me. One morning in June I was looking over the first bed of roses I had ever raised from seed, and searching for something new among them with all the ardour of youth, when my attention was attracted to a rose in the centre of the bed, not in bloom, but growing with great vigour, its shoots offering a remarkable contrast to the plants by which it was surrounded, in their crimson purple tinge; upon this plant I set my mark, and the following autumn removed it to a pet situation. It did not bloom in perfection the season after removal; but when established, it completely eclipsed all the dark roses known, and the plant was so vigorous that it made shoots more than ten feet in length in one season.

brilliancy of colour and size of flower, this variety is superior; the foliage and habit of the plant are also much more elegant and striking; in colour its flowers are of a peculiarly glowing vivid crimson, discernible at a great distance; it is, indeed, an admirable rose, and cannot be too much cultivated.

A very old, but almost forgotten rose of this group is *Fulgens*: its colour is almost scarlet, and a charming peculiarity is that of its petals having a shell-like bloom outside, while their inside is of a glowing red. The tree forms a graceful and large standard. Leopold de Bouffremont, a bright pink rose, blooming in large clusters, also forms a fine umbrageous standard, as does *Triomphe de Laquene*, which gives crimson flowers, nicely shaped. *Madame Plantier*, a free-blooming white rose, like the preceding varieties, is worthy of a place in the rose-garden, for these vigorous growing roses form large headed and very ornamental standards; they are, in truth, tree-roses, to which title most of the varieties cultivated as standards have no claim. The true tree-rose is the old variety called the Double Apple-bearing rose, the '*Rosa sylvestris pomifera major*' of Miller's '*Gardeners' Dictionary*.' At the commencement of the present century this kind was the only tree rose of our gardens, with the exception of the Double Sweet Briar, which in strong soils often formed itself into a fine standard tree.

In the 'front court' of my father's garden, I remember two fine tree roses, one the Double Apple-bearing, the other the Double Sweet Briar; they had large heads many feet through, and stems gnarled and knotted, measuring two feet in circumference; their beauty, when their large heads were covered with flowers, was most striking, and the polite stage-coachmen of those days used to pull up to allow their passengers to have a good look at those glorious trees—one almost regrets that such pleasant times are gone for ever. The trees were destroyed by a heavy fall of snow in the autumn before they had shed their leaves, which, lodging on the branches, crushed them to the ground, so that they never recovered. Some old specimens of the Double Apple-bearing rose still exist here: one has a stem nearly eighteen inches in circumference.

To return from this digression I have only to recommend General Jacqueminot; a fine, large, vigorous-growing rose, and, like Chênédolé, well adapted for a pillar rose, and Triomphe de Bayeux, a white hybrid China rose, even more vigorous in its habit than Chênédolé, and, like many of the roses of this family, only adapted for a large standard or a pillar rose, now that we have our beautiful Hybrid Perpetual Roses as ever-blooming bushes for our rose-beds.

Culture.

We may confine all the varieties of this group to pillars, or to large standards to be planted in conspicuous situations: although their beauty, like that of all summer roses, is fleeting, they are certainly gorgeous objects when well cultivated. To cultivate them well is to lay round their stems, on the surface of the soil, in a circle three feet in diameter, early in November, a good proportion of manure; and mind that, before the blooming season commences, this is added to, as they require the surface of the soil moist when in flower; they will also continue much longer in bloom if this is attended to. The great objection to this surface-manuring, for it should not be dug or forked in, with English gardeners is its unsightly appearance, particularly round trees, on well-dressed lawns; this may be soon obviated by covering the manure with some green moss; and, to keep the birds from disturbing it, which they will do after worms, place on the moss some pieces of rock or flints; thus forming an ornamental mound. In France, roses are cultivated with much and well-rewarded care; for even standards of thirty years' growth have, every spring, a large quantity of manure laid on the surface round their stems. This keeps the extreme heat of the sun from penetrating to their roots; and, as they are abundantly watered in hot weather, it

also prevents that rapid evaporation which would otherwise take place, so often rendering watering useless. This practice is, after all, only imitating nature; for the Dog Rose, upon which all the fine varieties are grafted, grows naturally in woods and shady places; consequently, its roots are impatient of exposure in hot dry soils and situations, and prefer firm undug surface-manured borders.

Hybrid China roses, as pillar roses, require also a superabundance of manure and some attention; but they will amply repay it, for a column twelve to fifteen feet high, covered with such roses as *Brennus*, *Blairii*, *Chênédolé*, and a few others, would be one of the finest garden ornaments it is possible to conceive. To make them grow with the necessary luxuriance, each plant should have a circle, at least three feet in diameter, to itself; in the centre of this circle, a stout stake of yellow deal, tarred at the bottom, should be inserted two feet deep, so as to stand eight feet out of the ground: this part may be painted green. If the soil be poor, it should be dug out three feet in depth, and filled up with rotten manure and loam: this compost must be laid considerably (say one foot) above the surface of the surrounding soil, so as to allow for settling: in wet soils they will grow the better for being on a permanent mound; but such soils should always be drained. Plant a single plant in the centre of

this mound; or, if you wish for a variegated pillar, plant three plants in the same hole, two pale-coloured and white, the other a dark variety: cover the surface with manure, and replenish this as soon as it is drawn in by the worms or washed in by the rains. Water with liquid manure in dry weather, and probably you will have shoots eight to ten feet in length the first season. Three of the most vigorous should be fastened to the stake, and the spurs from these shoots will for many years give abundance of flowers. I scarcely know whether to recommend grafted roses on short stems for this purpose, or plants on their own roots; this will in a great measure depend upon the soil, and perhaps it will be as well to try both. Most roses acquire additional vigour by being worked on the Dog Rose; but some of the robust varieties of this family grow with equal luxuriance when on their own roots: finally, for dry and sandy soils I am inclined to recommend the latter, unless plants can be procured budded on the Manetti rose, which, of all others, is the best adapted for dry soils.

Pruning.

When grown as large standards, these roses require peculiar pruning. If their shoots are shortened too much, they will grow vigorously, but give no flowers: they should therefore be

thinned out, so that the head of the tree is not at all crowded, and then be shortened to within twelve buds of their base; a crop of fine flowers will then be produced. This is the pruning to be done either in the early part of November or in February: we will call it the winter pruning. There is another mode of pruning these roses, partly in summer, which will be found highly eligible: thin out the shoots in the winter, and leave a selected number of those that are most vigorous nearly their full length, merely cutting off their tips: these will be loaded with blossoms so as to make the trees quite pendulous. As soon as the blooming season is past, shorten them all to within six inches of their base: they will immediately put forth strong shoots, which, while in a very young state, thin out, leaving those that are the most vigorous. These shoots treat in the same manner the following year. By this method of pruning, a pendulous graceful head is formed, instead of a stiff formal one, so common to standard roses. In pruning these roses when trained as pillars, the spurs from the shoots fastened to the stake merely require thinning out so as not to be crowded, and then shortened to within five or six buds of their base. Trained as pillar roses they give flowers often too abundantly, so that they are small and ill-shaped; it is therefore often a good practice to thin the flower buds as soon as they can be distinguished.

Raising Varieties from Seed.

I shall now proceed to give a list of those roses from which, in combination with others, choice seedlings may be raised.

Fulgens should be crossed with the Bourbon rose, Gloire de Rosomène, or with the China rose Fabvier, and General Jacqueminot with the same kinds, or any semi-double rose that gives abundance of pollen. Large and double roses may thus be produced, with a tendency to bloom in autumn.

This rose should be planted in a very warm border, or trained against a south wall with Bourbon Gloire de Rosomène; and if carefully fertilised with it, some beautiful crimson autumnal roses would probably be originated. Chénérolé may also be subjected to the same treatment. What a fine autumnal rose one like it would be!

THE HYBRID BOURBON ROSE.

(ROSA BOURBONIANÁ HYBRIDA.)

Rosier Hybride de l'Ile Bourbon.

THIS magnificent race of roses (and indeed the phrase is not misplaced), owes its origin to the Bourbon Rose, itself a hybrid*, thus showing the illimitable powers of nature when assisted by art.

* See Bourbon Roses.

A very distinct feature in these roses is their thick, round, and glossy leaves, remaining on the plant till late in autumn; and particularly distinguished by this peculiarity is Charles Duval, a large, finely-shaped, and very double rose, of a bright rose-colour, of the most robust habit. This, when budded on a very stout stem, either as a half or full standard, soon forms a large tree, than which nothing among roses can be more ornamental. Our next, Coupe d'Hébé, is, however, the gem of this family; in colour it is of a beautiful wax-like pink, and in the disposition and regularity of its petals it is quite unique: this, like most of the group, soon forms a large bush or tree, and is also well adapted for a pillar rose.

Paul Perras is a fine, very large rose, of the most luxuriant growth. Like all in this group, it is calculated to form a standard of the largest size, and well deserves a conspicuous place on the lawn, either as a standard or pillar rose; in colour it is of a fine bright rose.

Paul Ricaut is a most desirable variety in colour; one of the most brilliant of the group: its flowers large, beautifully shaped, and of a brilliant carmine, approaching to crimson. Charles Lawson, its rival in size and shape, is in colour a brilliant rose, and, like all I have named, forms a fine vigorous-growing standard. The culture recommended for Hybrid China roses may be applied to these, as they are of the same race.

Pruning.

All these roses will bear pruning more closely than those of the preceding family. If an early crop of flowers is required, the trees may be pruned the first week in November, removing all the small branches and their spurs which have produced bloom, and then shortening the shoots to within five or six buds of the base of each. These shoots should be left at regular distances, so that a well-furnished and regular-shaped tree is formed. The method of summer pruning, as recommended for the preceding group, may also be practised. To have a succession of flowers, it is only necessary to leave some trees unpruned till the end of April, and then prune as above: these will give their flowers from ten days to a fortnight later than those pruned early in autumn. The medium season for pruning them, and all the summer roses, is towards the end of February: they will then bloom at their usual period. In pruning, care must be taken to cut just above the bud in those shoots left for blooming: the wound will then soon heal over. To be precise, do not leave more than one-eighth of an inch above the bud.

Raising from Seed.

Of all the roses which bear seed in this country, a few of the varieties in this family are the most prolific, and, I may add, the most generous in rewarding the amateur for the culture bestowed; for to this group we owe the greater part of those splendid autumnal roses known now as Hybrid Perpetuals. To obtain these it is necessary to fertilise the flowers of such varieties of this family intended for seed bearers with the pollen of any favourite variety of the China, Bourbon, or Tea-scented Roses. Your seedlings, at least the majority of them, will, if all is favourable, prove autumnal blooming roses. One of the most prolific varieties is Paul Perras, of which almost every flower gives its hip full of seed; this may be crossed with the China Rose, Fabvier, or the Bourbon Gloire de Rosomène. Charles Duval should be crossed with Madame Laffay, or the China Rose, Eugène Beauharnais.

Frederick the Second, a crimson rose tinted with purple, which bears seed freely, may be crossed with Fabvier, Gloire de Rosomène, or the Bourbon rose, Charles Souchet.

THE WHITE ROSE.

(ROSA ALBA.)

Rosier Blanc.

ROSA ALBA, or the White Rose, so called because the original species is white, is a native of middle Europe, and was introduced to our gardens in 1597. In some of the old farm and cottage gardens of Hertfordshire and Essex a semi-double variety is frequent; this is but a slight remove from the single-flowering original species, and grows luxuriantly, without culture, in any neglected corner. The roses of this division may be easily distinguished by their green shoots, leaves of a glaucous green, looking as if they were covered with a greyish impalpable powder, and flowers generally of the most delicate colours, graduating from pure white to a bright but delicate pink.

Madame Audot is a fine rose, with flowers beautifully shaped, of a delicate flesh-colour.

Félicité is a beautiful rose; its flowers are exactly like a fine double ranunculus, of a most delicate flesh-colour: this is a distinct and fine variety.

La Séduisante is most appropriately named: it is not a new variety, but a rose most perfect in shape, and in its colour it is surpassingly so; its flowers are of the most delicate blush in their

outer petals; inner petals bright rose. *Princesse de Lamballe* is one of the finest in this division, possessing all the characters of the species in its foliage, branches, and flowers: these are of the purest white, and of the most perfect and beautiful shape. *Queen of Denmark*, an old, but estimable variety, produces flowers of first-rate excellence as prize-flowers: so much was this esteemed when first raised from seed, that plants were sent from Germany to this country at five guineas each. *Sophie de Marsilly* is a most delicate and beautiful mottled rose, with flowers very double and perfect in shape: when just expanding so as to show the interior of the flower, this rose is of the most exquisite beauty.

The varieties of this family form a beautiful mass, not by any means gay and dazzling, but chaste and delicate, and contrast well with groups of the dark varieties of *Rosa gallica* and *Hybrid China* roses: they also make good standards, often growing to a large size and uniting well with the stock: they always bloom abundantly, and bear close pruning; in this respect they may be treated as recommended for the French roses. The varieties of this family, for the most part, are too double to bear seed in this country; it is not therefore necessary to give any directions for hybridising.

THE DAMASK ROSE.

(ROSA DAMASCENA.)

Rosier Damas.

THE 'Damask Rose' is a name familiar to every reader of English poetry, as it has been eulogised more than any other rose, and its colour described with a poet's licence. The author of Eöthen, in that lively book of Eastern travel, remarks, while at Damascus, that the rose-trees 'grow to an immense height and size; those I saw were all of the kind we call Damask.' He is, however, so enraptured with the roses, that he leaves the sober path of prose in the following passage:—'High, high above your head, and on every side all down to the ground, the thicket is hemmed in and choked up by the interlacing boughs that droop with the weight of roses, and load the slow air with their Damask breath.'

In these glowing descriptions the truth, as is frequently the case in poetry, has been in a measure lost sight of; for, in plain unvarnished prose, it must be stated that the original Damask Rose, and the earlier varieties, such as must have been the roses of our poets, though peculiarly fragrant, are most uninteresting trees: however, we must not ungratefully depreciate them, for they are the types of our present new, beautiful, and fragrant varieties. The original species with single flowers

is said to be a native of Syria, from whence it was introduced to Europe in 1573. When Saladin took Jerusalem from the Crusaders in 1187, to purify the walls of the Mosque of Omar, which had been used as a Christian church, he caused them to be washed with rose-water brought from Damascus: according to Sanuto, a Venetian author, 500 camel-loads of Damask roses were used in the process.

The branches of the Damask Rose are green, long, and diffuse in their growth; leaves pubescent, and in general placed far asunder; prickles on most of the varieties abundant. To those old members of this family, the Red and the White Monthly, which by some peculiar excitability often put forth flowers in warm, moist autumns, nearly all our perpetual roses owe their origin, so that we can now depend upon having roses as fragrant in October as in June. The York and Lancaster rose, with pale striped flowers, is one of the oldest varieties of this division in our gardens. There is perhaps a little too much sameness of character in some of the varieties of the Damask Rose; their gradations of colour are sometimes too delicate to be distinct, but the following are pretty and distinct.

La Ville de Bruxelles is an old variety, with rose-coloured flowers, very large and double: this is a distinct and fine rose. Madame Hardy was raised from seed in the Luxembourg gardens, by

Monsieur Hardy in 1832. This is not a pure Damask Rose, as its leaves have scarcely any pubescence; but a more magnificent rose does not exist, for its luxuriant habit and large and finely-shaped flowers place it quite first among the white roses; its flowers are, however, too often disfigured by a green bud in the centre.

La Chérie is of a delicate blush, with the centre of the flower pink, cupped, very double, and first-rate in quality. Madame Zoutman, or, according to some, Madame Söetmans, is a most beautiful rose of a delicate cream-colour, slightly tinted with fawn; although widely different in habit, its flowers much resemble those of that fine Hybrid Provence, Comte Plater. Madame Stoltz is a pretty rose, with flowers of the palest lemon; and Pulchérie, with pure white flowers, cupped, and very neat and elegant in their shape, is quite worthy of culture. All the Damask Roses are highly fragrant.

The roses of this neat and elegant family have a pretty effect arranged in a mass; like the varieties of *Rosa alba*, they are so beautiful in contrast with the dark roses: they also form fine standards, more particularly Madame Hardy, La Ville de Bruxelles, and Madame Zoutman, which will grow into magnificent trees if their culture is attended to. The pruning recommended for *Rosa gallica* will also do for these roses and the varieties of *Rosa alba*.

The good roses of this family do not bear seed freely, being too double; and it is not now worth while to raise seedlings from inferior varieties.

THE SCOTCH ROSE.

(*ROSA SPINOSISSIMA.*)

Rosier Pimprenelle.

THE varieties of this distinct and pretty group owe their origin to the Dwarf Wild Rose of the North of England and Scotland, nearly all of them having been raised from seed by the Scotch nurserymen: in some of their catalogues two or three hundred names were given; but in many cases these names are attached to flowers without distinctive qualities. The names of a few of the best varieties are given, but even these vary much with the seasons; for I remarked that in the summer of 1836, after the peculiarly cold and ungenial spring, and again in 1837, they departed much from their usual characters, and bloomed very imperfectly: in warm and early seasons they flower in May, and are then highly ornamental.

The following varieties have generally proved good and distinct. Countess of Glasgow, Daphne, Erebus, and Flora, are all good vivid-coloured dark roses, varying in their shades, and very pretty. • Guy Mannering is a large and very

double blush rose, distinct and good. *La Neige* is deserving of its name, for it is of the purest white, and very double and good. *Lady Baillie*, *Marchioness of Lansdowne*, and *Sulphurea*, are all pretty pale sulphur-coloured roses: from the seed of these it is very probable that some good yellow varieties may, at some future time, be raised.

The true Yellow is a hybrid raised in France, and in most seasons is a pretty sulphur-coloured rose, much admired; but in very hot weather it fades very soon to white: this was the case more particularly in 1837. It seemed much influenced, in common with the other Scotch roses, by the cold springs and a rapid transition to hot weather. *William the Fourth* is the largest pure-white Scotch rose known; a luxuriant grower and a good variety. *Venus* is an excellent dark rose with very double flowers, and distinct characters.

Scotch roses may be grown as standards, and the Yellow, and one or two of the more robust varieties, make good heads; but in general they form a round and lumpish tree, in ill accordance with good taste. When grown into beds and clumps as dwarfs they are beautiful, and in early seasons they will bloom nearly a fortnight before the other summer roses make their appearance. This, of course, makes them desirable appendages to the flower garden. They bear seed profusely; and raising new varieties from seed will be found

a most interesting employment. To do this, all that is required is to sow the seed as soon as ripe in October, in pots or beds of fine earth, covering it with nearly one inch of mould; the succeeding spring they will come up, and bloom in perfection the season following!

The aim should be to obtain varieties with large and very double crimson flowers: this can only be done by slightly hybridising; and to effect this it will be necessary to have a plant or two of the Tuscany rose trained to a south wall, so that their flowers are expanded at the same time as the Scotch roses in the open borders: unless thus forced they will be too late. Any dark-red varieties of the Scotch roses, such as Venus, Erebus, or Flora, should be planted separately from others, and their flowers fertilised with the above French rose. Some very original deep-coloured varieties will probably be obtained by this method. Sulphurea and one or two other straw-coloured varieties may be planted with the Double Yellow Austrian Briar, and most likely some pretty sulphur-coloured roses will be the result of this combination.

THE SWEET BRIAR.

(ROSA RUBIGINOSA.)

Rosier Rouillé.

WHO knows not the Sweet Briar? the Eglantine, that plant of song, the rhyme of which jingles so prettily that nearly all our poets, even love-stricken rustics, have taken advantage of its sweet sound.

I will give to my love the Eglantine

has been often the beginning of a country lover's song; but, in sober truth, every one must love this simplest and sweetest of flowers, for what odour can surpass that emanating from a bush of Sweet Briar in the dewy evenings of June? It pleases not the eye, for the Single Sweet Briar bears flowers, in comparison with other roses, quite inconspicuous: but it gratifies in a high degree by its delicious perfume, and gives to the mind most agreeable associations, for it is so often (at least in Hertfordshire) the inhabitant of the pretty English cottage garden—such a garden as one sees nowhere but in England.

The Single Sweet Briar is a native plant, growing in dry and chalky soils in some of the southern counties: from it the following varieties, with some others, have been originated, more or less hybridised. The Carmine Sweet Briar, with

semi-double bright-red flowers. The Celestial, a beautiful little rose, with flowers very double and fragrant, of the palest flesh colour approaching to white. The Monstrous Sweet Briar is a very old variety, with large and very double flowers. The Scarlet, or La Belle Distinguée, or Lee's Duchess, or La Petite Duchesse, for they are one and the same, is a pretty bright-red, small, and compact rose, very distinct and good; but its leaves are entirely scentless. As allied with this family I ought to mention a very beautiful hybrid, the Double-margined Hip, also Madeline, or Emmeline, with a ground-colour of creamy white, beautifully margined with pink: this forms a fine standard, and is also well adapted for a pillar rose.

Sweet Briars form a pretty group, interesting from their origin and associations, and pleasing from their fragrance and peculiar neatness: they make also pretty trees, particularly on 'petites tiges,' as the French term them: they require the same culture as the other hardy roses.

Raising Varieties from Seed.

Humble as are the claims of the Sweet Briar, when contrasted with the gorgeous beauty of some of our new roses, yet it is so decidedly English, that raising new varieties from seed will, I am sure, be found interesting.

The Scarlet may be planted with the common Sweet Briar, which so abounds in pollen, that fertilising will be found very easy. The beauty of the flowers of these Sweet Briars might be increased by hybridising with some of the French roses; but then their Sweet-Briar-like character would be lost, and with that a great portion of their interest.

The Hybrid China rose, Riego, if crossed with the common Sweet Briar, would produce seed from which large and very fragrant double roses might be expected, and these would partake largely of the character of the Sweet Briar.

THE AUSTRIAN BRIAR.

(ROSA LUTEA.)

Rosier Capucine.

THE Austrian Briar, a native of the south of Europe, is found on the hills of the north of Italy, producing copper or red as well as yellow flowers: but, strange to say, though the flowers are invariably single, yet they never produce seed. In this country also it is with extreme difficulty, and only by fertilising its flowers, that seed can be perfected: if the flowers are examined they will all be found deficient in pollen, which accounts

for this universal barrenness. A double Copper Austrian Briar is yet a desideratum.

The Copper or Red Austrian, the Capucine of the French, is a most singular rose; the inside of each petal is of a bright copper red, the outside inclining to sulphur: this rose is most impatient of a smoky atmosphere, and will not put forth a single bloom within ten or twelve miles of London. The Double Yellow, or William's Double Yellow Sweet Briar, is a pretty double rose, raised from the single Yellow Austrian by Mr. Williams, of Pitmaston, many years since: this blooms more freely than the original species, and is a most desirable variety. *Rosa Harrisonii* is also a double yellow rose, said to have been raised from seed in America, and sent from thence to this country: this has proved a pretty yellow rose; its flowers before expansion are globular, but a hot sun makes them expand and lose much of their beauty. It is a more robust grower than the Double Yellow Sweet Briar; its flowers are also a little larger, and do not fade so soon. The Single Yellow is the most brilliant yellow rose we yet possess; and it will probably be the parent of some double varieties its equal in colour.

A yellow rose has been given to us from that land of flowers, Persia.* This was introduced to the gardens of the Horticultural Society of Lon-

* Introduced by Sir H. Willock.

don in 1838, and is now called the Persian Yellow Rose. In habit it is so exactly like the Single Yellow Austrian Briar as not to be distinguished from it: it grows readily budded on the Dog Rose, as my plants have often made shoots three feet or more in length: in colour it is of a deep golden yellow; its flowers are quite double, cupped, and not liable to become reflexed; it is indeed a most superb yellow rose. Like the Yellow Austrian Briar, it loves a pure air, and rich soil, and will bloom as freely; but in pruning, merely the tips of its shoots must be cut off, thinning out the shoots that have been formed in summer, as recommended for Hybrid China roses; this will be found good practice.*

To bloom them in perfection all the Austrian Briars require a moist soil and dry pure air; but little manure is necessary, as they grow freely in any tolerably good and moist soil; neither do they require severe pruning, but merely the strong shoots shortened, and most of the twigs left on the plant, as they generally produce flowers in great abundance.

* By shortening the strong shoots in summer, so as to make them put forth laterals, there will not be any occasion for winter pruning: thus by judiciously pinching off with the finger and thumb in June all shoots that are larger than a straw, to about half their length, small lateral twigs will break out, and the plant will be filled with blooming shoots, some of which must be removed in winter, if full-sized flowers are required.

Raising Varieties from Seed.

No family of roses offers such an interesting field for experiments in raising new varieties from seed as this. First we have the Copper Austrian, from which, although it is one of the oldest roses in our gardens, a double flowering variety has never yet been obtained. This rose is always defective in pollen; and consequently it will not bear seed unless its flowers are fertilised: as it will be interesting to retain the traits of the species, it should be planted with and fertilised by the Double Yellow; it will then in warm, dry seasons produce seed, not abundantly; but the amateur must rest satisfied if he can procure even one hip full of perfect seed.

The beautiful and brilliant *Rosa Harrisonii*, however, gives the brightest hopes. This should be planted with the Double Yellow Briar: it will then bear seed abundantly: no rose will perhaps show the effects of fertilising its flowers more plainly than this; and consequently to the amateur it is the pleasing triumph of art over nature. Every flower on my experimental plants, not fertilised, proved abortive; while, on the contrary, all those that were so, produced large black spherical hips full of perfect seed. The Persian Yellow does not seem inclined to bear seed; but it may be crossed with *Rosa Harrisonii*, and I trust with some good effect.

THE DOUBLE YELLOW ROSE.

(ROSA SULPHUREA.)

Rosier Jaune de Soufre.

THE origin of this very old and beautiful rose, like that of the Moss Rose, seems lost in obscurity: it was first introduced to this country by Nicholas Lete, a merchant of London, who brought it from Constantinople towards the end of the sixteenth century; it was reported to have been sent from Syria to that city. The first plants brought to England soon died; and another London merchant, Jean de Franqueville, again introduced it, and took much pains to propagate and distribute it among the principal gardens in England: in this he fully succeeded. In the botanical catalogues it is made a species, said to be a native of the Levant, and never to have been seen in a wild state bearing single flowers. It is passing strange, that this *double* rose should have been always considered a *species*. Nature has never yet given us a *double* flowering species to raise *single flowering varieties* from; but exactly the reverse. We are compelled, therefore, to consider the parent of this rose to be a species bearing single flowers.*

* The wild single state of the Double Yellow Rose was found by Dr. Thomson in the Western Himalaya, in the province of Kishtevan, near Kashmir, at 7,500 feet elevation, and by Griffith

As yet we have but two roses in this division; the Double Yellow, or 'Yellow Provence,' with large globular and very double bright-yellow flowers, and the Pompone Jaune, or Dwarf Double Yellow, both excessively shy of producing full-blown flowers, though they grow in any moderately good soil with great luxuriance, and show an abundance of flower-buds; but some 'worm i' the bud' generally causes them to fall off prematurely. To remedy this, various situations have been recommended: some have said, plant it against a south wall; others give it a northern aspect, under the drip of some water-trough, as it requires a wet situation. All this is quackery and nonsense. The Yellow Provence Rose is a native of a warm climate, and therefore requires a warm situation, a free and airy exposure, and rich soil; a wall with a south-east or north-west aspect will be found eligible. Give the plants surface manure every autumn, and water with manure water in May; prune with the finger and thumb in summer, as recommended for the Persian Yellow.*

in Afghanistan. Though so well known in our gardens for nearly a century, the native place of this fine plant has only been recently discovered: both single and double states of it are cultivated abundantly in Persian gardens, and the single has been also found wild on Mount Sypilus.—DR. HOOKER, in *Gardener's Chronicle*, January 17, 1857.

* M. Godefroy, a French nurseryman, has cultivated it as a pillar rose in a free and open situation with much success; manuring as above and summer pruning are indispensable.

At Burleigh, the seat of the Marquis of Exeter, the effect of a situation on this rose is forcibly shown. A very old plant is growing against the southern wall of the mansion, in a confined situation, its roots cramped by a stone pavement; it is weakly, and never shows a flower-bud. In the entrance court is another plant, growing in front of a low parapet wall, in a good loamy soil and free airy exposure; this is in a state of the greatest luxuriance, and blooms in fine perfection nearly every season.

Mr. Mackintosh, the gardener, who kindly pointed out these plants to me, thought the latter a distinct and superior variety, as it was brought from France by a French cook, a few years since; but it is certainly nothing but the genuine old Double Yellow Rose.

In unfavourable soils it will often flourish and bloom freely, if budded on the Musk Rose, the common China Rose, or some free growing hybrid China Rose; but the following pretty method of culture I beg to suggest:—Bud or graft it on some short stems of the *Rosa Manetti*; in the autumn, pot some of the strongest plants, and, late in spring, force them with a gentle heat, giving plenty of air. It will now also be very interesting to plant trees of this variety in orchard houses: this seems to me to be the exact climate required by it. By this method the dry and warm climate of Florence and Genoa may, perhaps, be partially

imitated; for there it blooms in such profusion, that large quantities of its magnificent flowers are daily sold in the markets during the rose season.

The following extract relative to this rose is from the quaint old book, 'Flora, Ceres, and Pomona, by John Rea, Gent., 1655,' showing that budding and double-budding of roses and trees is no new idea:—'The Double Yellow (rose) is the most unapt of all others to bear kindly and fair flowers, unless it be ordered and looked unto in an especial manner: for whereas all other roses are best natural, this is best inoculated upon another stock; others thrive and bear best in the sun, this in the shade; therefore, the best way that I know to cause this rose to bring forth fair and kindly flowers, is performed after this manner:—first, in the stock of a Francford* Rose, near the ground, put in a bud of the Single Yellow Rose, which will quickly shoot to a good length; then, half a yard higher than the place where the same was budded, put into it a bud of the Double Yellow rose, which growing, the suckers must be kept from the root, and all the buds rubbed off except those of the kind desired, which being grown big enough to bear (which will be in the two years), it must in winter be

* This is the Frankfort rose, a variety of *Rosa gallica*, with very double flowers, one of our oldest garden roses.

pruned very near, cutting off all the small shoots and onely leaving the biggest, cutting off the tops of them also as far as they are small; then in the spring, when the buds for leaves comes forth, rub off the smallest of them, leaving onely some few of the biggest, which, by reason of the strength of the stock affording more nourishment than any other and the agreeable nature of the Single Yellow Rose, from whence it is immediately nourished, the shoots will be then strong and able to bear out the flowers if they be not too many, which may be prevented by nipping off the smallest buds for flowers, leaving only such a number of the fairest as the tree may be able to bring to perfection, which tree should stand something shadowed and not too much in the heat of the sun, and in a standard by itself rather than under a wall. These rules being observed, we may expect to enjoy the full delight of these beautiful roses, as I myself have often done by my own practice in divers trees so handled, which have yearly borne store of fair flowers, when those that were natural, notwithstanding all the helps I could use, have not brought forth one that was kindly, but all of them either broken or, as it were, blasted.'

CLIMBING ROSES.

DIVISION I.

THE AYRSHIRE ROSE.

(ROSA ARVENSIS HYBRIDA.)

It is the opinion of some cultivators, that the varieties of the Ayrshire Rose have been originated from the *Rosa arvensis*, or creeping single White Rose of our woods and hedges. But this is contradicted by botanists, who assert that the original Ayrshire Rose was raised in Scotland from foreign rose seed: it may have been; but to judge from its habit, I feel no hesitation in asserting that it is merely a seedling hybrid from our *Rosa arvensis*, having acquired much additional vigour, as all hybrid roses nearly invariably do, from some accidental impregnation. Perhaps no rose can be more luxuriant than this; for the Single Ayrshire, and that semi-double variety known as the Double White, will often make shoots in one season twenty or thirty feet in length. Several of our prettiest varieties were raised from seed by Mr. Martin of Rose Angle, Dundee; the Ayrshire Queen, the only dark Ayrshire Rose known, was originated by myself, in 1835, from the blush Ayrshire, impregnated with the Tuscany Rose. But one seed germinated; and the plant produced has proved a com-

plete hybrid. Its flowers are of the same shape, and not more double than those of the blush Ayrshire, its female parent; but they have all the dark-purplish crimson of the Tuscany Rose. It has lost a portion of the vigorous climbing habit of the Ayrshire, but yet makes an excellent pillar rose. Till we can get a dark Ayrshire Rose, double as a *Ranunculus*, it will be acceptable. The Double Blush, or Double Red of some catalogues, is a pretty early rose, a vigorous climber, and, as a standard, forms a beautiful umbrella-shaped tree. Bennet's Seedling, or *Rosa Thoresbyana*, is a variety found growing among some briars, by a gardener of the name of Bennet, in Nottinghamshire. It is a very pretty double and fragrant white rose. Dundee Rambler is the most double, and one of the best in this division; it blooms in very large clusters, much in the Noisette fashion, and is truly a desirable rose.

Queen of the Belgians is a fine rose, with very double flowers, of a pure white; this is a most vigorous climber, soon forming a pillar fifteen or twenty feet high. Ruga is now a well-known variety, said to be a hybrid between the Tea-scented China Rose and the common Ayrshire; it is a most beautiful and fragrant rose. Splendens is a variety with very large cupped flowers of a creamy blush; this rose has the peculiar 'myrrh-scented' fragrance.

Ayrshire roses are some of them, perhaps,

surpassed in beauty by the varieties of *Rosa sempervirens*; still they have distinct and desirable qualities: they bloom nearly a fortnight earlier than the roses of that division; they will grow where no other rose will exist; and to climb up the stems of timber trees in plantations near frequented walks, and to form undergrowth, they are admirably well adapted; they also make graceful and beautiful standards, for the ends of the branches descend and shade the stems, which in consequence increase rapidly in bulk. It seems probable that Ayrshire Roses will grow to an enormous size as standards, and surpass in the beauty of their singular dome-shaped heads many other roses more prized for their rarity. I have at this time (1854) two standards of Bennet's seedling about ten years old; their stems are ten inches in circumference, their branches trail on the ground, and when in full bloom nothing can be more beautiful; they have never been touched with the pruning knife.

I have a steep bank of a hard white clay, which owing to a cutting made in the road became too steep for cultivation. About sixteen years since this was planted with Ayrshire and other climbing roses; holes were made in the hard soil with a pick two feet over and two feet deep; some manure mixed with the clay, after it had lain exposed to frost to mellow it, and climbing roses planted. This bank is, when the roses are in bloom, a mass

of beauty ; I have never seen anything in climbing roses to equal it. On another bank they are gradually mounting to the tops of the trees ; none of them have ever been pruned. Ayrshire roses, as articles of decoration in places unfitted for other ornamental climbers, are worthy of much more attention than they have hitherto received.

The following extract from the ' Dundee Courier ' of July 11, 1837, will give some idea how capable these roses are of making even a wilderness a scene of beauty :—

' Some years ago a sand pit at Ellangowan was filled up with rubbish found in digging a well. Over this a piece of rock was formed for the growth of plants which prefer such situations, and amongst them were planted some half-dozen plants of the Double Ayrshire Rose, raised in this neighbourhood about ten years ago. These roses now most completely cover the whole ground, a space of thirty feet by twenty. At present they are in full bloom, showing probably not less than ten thousand roses in this small space.'

CLIMBING ROSES.

DIVISION II.

ROSA MULTIFLORA.

THE *Rosa multiflora*, or many-flowered rose, is a native of Japan, from whence it was brought by

Thunberg, and introduced into this country in 1804. Several of the varieties now known have been raised in Italy, where these pretty roses flourish and bear seed abundantly. In the neighbourhood of Florence the Double Red may be seen climbing to an enormous extent, and large plants, completely covered with thousands of its very double and perfect flowers. The Single White is also grown in Italy; from this I raised in 1837 several hundreds of seedlings; the seed I received from Signor Crivelli, of Como, an Italian rose amateur, very much devoted to gardening; all the varieties of this family are interesting, as they differ so much from other roses. Alba, or the Double White, is rather a misnomer, for it is not pure white, but rather a pale flesh-colour, pretty and distinct. Grevillia, or the Seven Sisters' Rose, is a vigorous climber, blooming in large clusters, which show a curious diversity of colours; for soon after expansion, the flowers change from crimson to purplish rose, and then to pale rose; so that in the clusters may be seen three or four shades, from rose to deep purplish crimson. In wet soils, it is often killed to the ground by the winter's frost; even in warm situations, and if covered with mats, it shoots so early that, when uncovered, it cannot endure the cold of spring. It would probably form a fine pillar rose if thatched in November with green furze or whin, which admits air, and yet keeps off the severity of the

frost. This covering may continue till March, and then must not be removed at once, but at twice or thrice; as want of caution in not removing their winter covering gradually is the death of thousands of half-hardy plants. If a plant is protected with spray or furze, remove half in mild weather in March, and let the remainder continue a week or fortnight longer, being regulated by the weather. The treatment of the Grevillia rose as a pillar may be applied to all the varieties of *Rosa multiflora*, as they are impatient of cold. *Hybrida*, or *Laure Devoust*, is a hybrid, and a most elegant and beautiful rose, having all the peculiar neatness of the double red and white varieties, with large flowers and more beautiful foliage. This is one of the prettiest climbing roses known. A Genevese friend informs me that some pillars of this rose at Geneva are thirty feet high, and covered with flowers the greater part of summer. *Rubra*, or the *Double Red*, is our oldest variety, but still interesting and pretty. Large plants of this rose may sometimes be seen, seldom putting forth flowers; this is owing to severe pruning, or to the winter killing the small spray-like shoots from which they are generally produced.

These roses have but few adaptations. I have given under *Grevillia Rose* their culture as pillar roses. For these and for warm situations against walls they are very ornamental: they also bloom

in the greatest perfection as standards, but they will require removing to a warm shed in winter. Grafted on short stems and grown in large pots, they bloom freely, and form pretty objects, as they produce their myriads of elegant flowers the greater part of summer; they require but little pruning: thinning out the crowded spray and leaving the shoots nearly their full length is all that is necessary.

CLIMBING ROSES.

DIVISION III.

THE EVERGREEN ROSE.

(*ROSA SEMPERVIRENS.*)

The original of this beautiful family is the *Rosa sempervirens*, the climbing Wild Rose of Italy, with small single white flowers and foliage nearly evergreen. Monsieur Jacques, the chief gardener at the Château de Neuilly, had the pleasure of originating most of the varieties now in cultivation; two or three he named after the daughters of his royal master King Louis-Philippe: Adélaïde d'Orléans is one of these, and a very pretty and excellent rose it is, with dark shining green foliage, and beautifully shaded pale rose-coloured

flowers; in the 'Floricultural Cabinet' for September, 1837, a figure of it is given, which is as like a sunflower as this pretty and distinct rose. *Banksiæflora* is more fragrant than the generality of these roses; it seems hybridised in a trifling degree with the old Musk Rose, which has probably imparted a little of its delightful perfume; this has small and very double white flowers. *Brunonii* is not a true *sempervirens*, but approaching so near in its habit, that it cannot be placed in any other division with propriety. It has more colour than usual in roses of this family, as they are all inclined to pale flesh-colour, or white. This is of a vivid rose-colour, and very pretty and distinct. *Donna Maria* is of the purest white, with fine dark green foliage, and very double flowers; a good and distinct rose, *Félicité Perpétue*, is a general favourite, and justly so, as it is one of the most beautiful of roses. No plant can be more lovely than a large specimen of this rose covered with its double ranunculus-like cream-coloured flowers. It will not bloom if pruned much; therefore its shoots must be tied in their full length, and thinned out if too numerous, but not shortened.

Jaunâtre is a variety with yellowish-white flowers. This is evidently hybridised with the Musk or Noisette Rose, as it is fragrant.

Mélanie de Montjoie has large flowers of the purest white, and foliage very abundant and beau-

tiful, of a shining dark green, contrasting finely with its flowers.

Myrianthes, sometimes called *Ranunculacea*, is a charming plant: its flowers are so perfectly and elegantly shaped, and their colour so delicate, that if not the most beautiful of all, it is one among them. *Princesse Louise* is a fine and vigorous growing variety, flowers of a pale rose, very double and prettily cupped. *Princesse Marie* is one of the deepest in colour in this group; her flowers are of a bright rosy pink, beautifully cupped, and blooming in large clusters. *Rampant*, as its name implies, is a most vigorous and rampant grower, and a very pretty pure white rose. This will cover a wall or building with nearly as much rapidity as the common *Ayrshire*. *Spectabile*, or *Rose Ayez* of some catalogues, is a fine and distinct climbing rose, with bright rosy lilac flowers, and curiously incised petals; a most vigorous growing and desirable variety. *Triomphe de Bolwyller*, or *Sempervirens odorata*, is a hybrid between the *Rosa sempervirens* and the *Tea-scented China Rose*; its large globular flowers are very fragrant, and much like *Noisette Lamarque*, differing slightly in colour. This rose often blooms in the autumn, and that pleasing quality makes it still more desirable. It is, however, not nearly so hardy as the other members of this group, and requires a wall with a southern aspect.

Culture.

The varieties of *Rosa sempervirens* are of the easiest culture, as they seem to flourish in all soils and situations. In sheltered places and under trees they are nearly evergreen, retaining their leaves till spring. This makes them valuable for covering banks, trees, or walls. I know of no rose idea prettier than that of a wilderness of Evergreen Roses, the varieties planted promiscuously, and suffered to cover the surface of the ground with their entangled shoots. To effect this, the ground should be dug, manured, and thoroughly cleaned from perennial weeds, such as couch grass, &c., and the plants planted from three to five feet asunder. If the soil be rich, the latter distance will do; they must be hoed amongst, and kept clean from weeds after planting, till the branches meet; they will then soon form a beautiful mass of foliage and flowers, covering the soil too densely for weeds of minor growth to flourish. Those weeds that are more robust should be pulled out occasionally; and this is all the culture they will require: for temples, columns, wire fences—which they soon cover with beauty, and verandahs, their use is now becoming well known. One of the most complete temples of roses is that at the seat of——Warner, Esq., Hoddesdon, Hertfordshire; and the prettiest specimens of festooning these roses from

one column to another, by means of small iron chains (strong iron wire will do) may be seen at Broxbourn Bury, near Hoddesdon, the seat of — Bosanquet, Esq. They also form elegant and graceful standards; like the Ayrshire roses, their shoots are pendulous, and soon hide the stem, in a few years forming a pretty dome of foliage and flowers; for covering the naked stems of forest or ornamental trees they are also very useful, as their roots will not injure the tree which supports them; and if strong copper wire is brought loosely round the trunk of the tree to support their branches, they will give scarcely any trouble in such situations. To make them grow vigorously, give them a supply of manure on the surface annually, in the autumn, to be carried to their roots by the rains of winter. Like the Ayrshires, standard sempervirens roses literally require *no* pruning. I have them as standards, as pillars, and as masses of underwood; the dead spray is cut out, and no other pruning done; for the wild beauty of standards is entirely destroyed by it; occasionally a very long shoot will have to be shortened, and that is all.

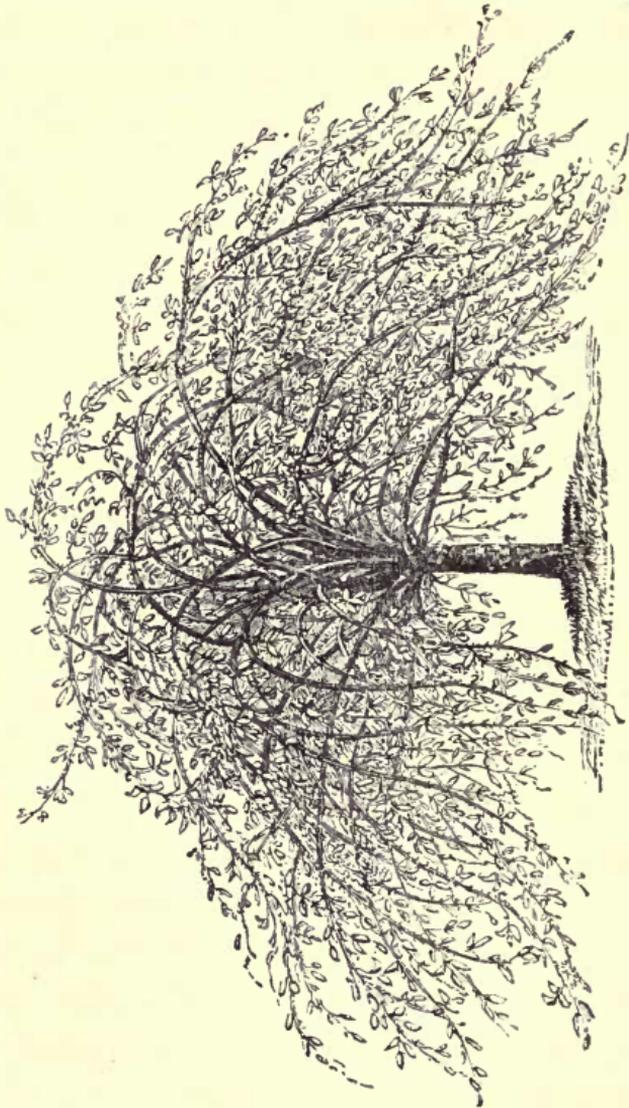
About six or eight years ago I received, among others, some very stout short stocks of the Dog-rose; they were not more than two feet in height, but stouter than a large broom-handle, the bark thick and grey with age: they were planted and grew most luxuriantly. I was for some little

time at a loss what varieties to bud them with; for, be it remembered, all stout and old Rose-stocks required to be worked with very strong-growing sorts of roses, to take off the abundance of sap, and keep them in a healthy state. At last, in a mere freak of fancy, I had them budded with some varieties of the Evergreen Rose (*Rosa sempervirens*). They grew most luxuriantly; and, after a year or two, not being trees adapted for sale, they were planted in a sloping bank of strong white clay, and left to grow and bloom as nature dictated—not a shoot was ever touched with the pruning-knife, and they soon formed themselves into beautiful dome-like trees.

The annexed figure (p. 74) is a portrait of one of these trees, now a well-known variety, the *Félicité Perpétue*.^{*} This tree is on a stem a trifle more than two feet in height, and it has been these two or three summers past a picture of beauty. When in full bloom the ends of its shoots rest on the ground, and then it forms a perfect dome of roses; nothing in Rose-culture can really be more beautiful. It will be at once seen with what facility such stout, short old Rose-stocks can be found in any hedge; they may be planted in the kitchen garden, budded with the above-mentioned sort, and, to give variety in colour, with some of the following kinds, all varieties of

^{*} This figure and description are copied, by permission, from the 'Florist,' for which I wrote it in 1851.

Rosa sempervirens, Myrianthes, Jaunâtre, Adélaïde d'Orléans, and Spectabilis. Every bud will succeed, as no roses grow more freely: and after



remaining one season from budding in their 'nursery,' some nice places must be found for them on the lawn, where, unpruned, unchecked,

they will, with all the freshness of unassisted nature, annually delight the eye of the lover of flowers—those beautiful gifts of an ever-beneficent Creator; and may I not add, that the contemplative mind will see in these lovely pendant roses the great charms of humility and gratitude—they seek to ‘abase’ themselves, and their beauty is ‘exalted;’ they receive from the earth all their benefits, and endeavour to cover and adorn her with their luxuriance.

DECORATED CLIMBING ROSES.

A strange term, for can a rose-tree be decorated? Yes, and I must at once tell how it has been done with these Evergreen Roses—the most vigorous and the most tractable of rose-stocks—and how it may be easily practised.

A few years since, a friend living at Weycliffe, near Guildford, found the heavily built brick bridge leading over the railway to his house (this is, however, in his grounds, so as to be private), conspicuously ugly, and he wished it to be hidden by evergreen climbing plants. As the carriage-road ran over the bridge, the gravel, of which it was made, did not seem to offer very happy quarters for any plant but ivy, which was objected to as being too heavy. I then proposed planting it with varieties of *Rosa sempervirens*, or, as we ought always to call them, Evergreen

Roses. They were with some difficulty planted, the gravel being loosened with the pick, and some manure mixed with it. In my annual visits to my friend living in this charming district—for no part of England is more so—I watched with some interest my bridge-roses. They grew with great rapidity, and soon covered every brick, but when they bloomed in large beautiful masses, some disappointment was expressed at the monotony of colour. I was prepared for this, and told my friend that they must be decorated. A good-natured incredulous smile met me with ‘how?’ I called the gardener, for this was in July, the budding season, went with him to the rose-garden, and thence took buds of some of the most beautiful of the dark Hybrid Perpetual roses, not forgetting some of the bright rose-coloured tints, such as Colonel de Rougemont, La Reine, General Simpson, and some others. Our great ‘horse’ was, I remember, General Jacqueminot. My budding hand had not forgotten its cunning, for did I not consider myself at twenty as the most dexterous and rapid budder of roses that ever lived and was likely to live? So I and the gardener proceeded to place buds here and there in shoots favourable for the purpose. The day was warm, and the thorns much sharper than they used to be forty years ago, so I have a misty idea that my friend Jackman the gardener put many more buds in than I did. To use the

common phrase, nearly all the buds 'took,' i. e. lived, and many of them put forth fine clusters of bloom the following August and September. I paid my annual visit to my friend in June of the next year, just eleven months after my budding exploit. As I approached the bridge, I felt full of interest about my buds. What a glorious sight met my eye! Amid the masses of flowers of the pale climbing roses, shone forth large clusters of the Géant, General Jacqueminot, Triomphe des Beaux Arts, Prince Noir, Comte Bobrinsky, Louise Peyronny, Colonel de Rougemont, Jules Margottin, and others; the bridge was a fairy avenue, so charming was the effect.

I have a full and fervent belief that ere long banks and avenues of decorated roses will be in every rose-garden, and that their culture will be carried to an extent we at present scarcely dream of. I have one rose friend who has formed his rose-walk with network of iron wire, fastened to upright iron rods; the meshes formed by crossing the wire occasionally are twelve or fifteen inches in diameter, so as effectually to support the shoots of the climbing roses.

This walk, in the course of a year or two, will be between two upright walls of 'Decorated Roses,' and I can scarcely imagine anything in rose culture more beautiful. It must be borne in mind that no arches, unless some fifteen feet apart, and no arched coverings must

be placed over a rose-walk or avenue of this description, for the finer kinds of roses require all the light and air they can have.

For pillars, banks, coverings for walks, and every fancy that can enter into the mind of a rose lover, these budded climbing roses are adapted, and they will well reward the ingenuity of a clever rose gardener; in many cases superseding the use of standards, which are for a great portion of the year so very ugly.

The 'how to do' these roses is very simple. If very rapid growth be required, the place in which they are to be planted should be well stirred to a depth of two feet, some manure mixed with the earth, and climbing roses of such sorts as *Félicité*, *Princesse Louise*, *Princesse Marie*, and *Spectabile* (all varieties of *Rosa sempervirens*), should be planted in November; if they have strong shoots, they may be tied or fastened up to nearly their full length; if not with long and strong shoots they may be cut down to within five inches of their bases: they will in the following season make shoots from ten to twelve or fifteen feet in length. The first shoots that will be fit to bud will be the old shoots that were left at full length when they were planted; these may be budded in June, and the young shoots that are made during the whole of the summer may be budded weekly till the end of September; the position of each bud must be thought of so as to make a picture really

artistic and beautiful. As soon as a bud is inserted, or if two or three buds are placed in the same shoot, the end of the shoot must be cut off to within two buds of the topmost inserted bud; the buds may be untied about three weeks after insertion, and all the young shoots that break out *below* the *inserted* buds must be rubbed off; this is all that need be done the first season. The next season the buds will bloom abundantly, and it will only be necessary to destroy all the young shoots that break out of the budded branch below the buds; those shoots that break out above the inserted buds may be pinched in frequently, the budded branch will not then become rigid and starved like the stem of a standard rose.

In decorating climbing roses, the buds should be dotted over the whole surface of the plant. Two or three buds in one branch will be found enough, and care must be taken not to bud every branch of the climbing rose; some must be left to grow in their natural, graceful, vigorous manner, so that the decorated wall or walk has not a stumpy appearance like an avenue of standard roses.

Rose lovers wishing to ornament their gardens with something quite *recherché* in rose-trees, should either with their own hands, or by the hands of their gardener, place numerous buds on the upper surface of the shoots of dome-shaped roses, like the figure given in p. 74. If some

twenty or thirty buds of such magnificent roses as Sénateur Vaise, Gloire de Santenay, General Jacqueminot, Cardinal Patrizzi, Duc de Rohan, François Lacharme, Empereur de Maroc, or, indeed, of any of the brilliant Hybrid Perpetual roses, are inserted in the numerous shoots over the surface of a large dome-shaped rose-tree in June, in September many of them will give fine flowers, and the following summer, when they bloom simultaneously with the varieties they are budded on—say Félicité, Perpétué—the effect will be most magnificent.

Evergreen roses, trained to tall pillars or suffered to hang in festoons, are capable of most fanciful decoration, as buds of very choice kinds may be inserted at different points of view, so as to have a charming effect.

Raising Varieties from Seed.

It is, I fear, almost hopeless to advise raising roses of this family from seed: they are for the most part too double, and, the species being a native of Italy, I fear that our cloudy skies are by far too unfavourable. But how charming would be a rose of this family with crimson flowers, and a tendency to bloom in autumn—in short, a Perpetual Crimson Evergreen rose. To obtain this, all lovers of roses ought at least to give the following experiment a fair trial:—Plant against

a south wall in a warm soil Princesse Marie and the China Rose Fabvier, also the Bourbon rose Gloire de Rosoméne; fertilise different flowers of the former with the pollen from both these varieties; the flowers of Princesse Marie are not quite double, and in a very warm and dry season it is quite possible that seed may be produced.

CLIMBING ROSES.

DIVISION IV.

THE BOURSAULT ROSE.

(ROSA ALPINA.)

THIS is a most distinct group of roses, with long, reddish, flexible shoots; they are not such decided climbers as the preceding three divisions, but they are excellently well adapted for pillar roses; they owe their origin to the Rosa Alpina, a single red rose, a native of the Alps, and also of the hills in the south of France. M. Boursault, formerly a great Parisian Rose-amateur, gave his name to the group, by the first double variety, the Red being named after him. Blush, or Boursault Florida, Calypso, White Boursault, Bengale Florida, Rose de Lisle, &c., for it is known by all these names, is a pale blush and very vigorous growing pillar rose. Crimson, or Amadis, is also

a very fine pillar rose ; its clusters of large, deep purple and crimson flowers are inclined to be pendulous, consequently they have a fine effect when on a tall pillar, and, as a pendulous standard, it is quite unrivalled. *Gracilis* is a hybrid of the most vigorous growth in good soils, often making shoots ten to twelve feet long in one season ; unlike the other varieties of this division, its shoots are covered with thorns. Nothing can be more graceful than the luxuriant foliage of this plant ; it has also finely-cupped flowers, of the most vivid rose colour, and must be reckoned a beautiful and desirable rose. *Inermis*, or *Boursault Pleine*, is a pretty variety, with flowers of a bright red, and a fine and luxuriant grower. The *Red Boursault* is our oldest variety, and though only semi-double, it is distinct, pretty, and still a rose worth cultivating. These roses require but little pruning to be grown as pillars ; the crowded spray should be cut out, the long shoots shortened to the height required. As standards the same treatment may be pursued ; but if the long shoots are left their full length the tree will be more graceful.

CLIMBING ROSES.

DIVISION V.

THE BANKSIAN ROSE.

(ROSA BANKSIÆ.)

AMONG the Banksian roses, botanists class *Rosa lævigata*, or *sinica*, a rose with peculiarly glossy foliage, and large single white flowers. This is a native of Georgia, also of Tartary and China, and, very probably, is the plant from which the Chinese derived our Double Banksian Roses. *Rosa sinica* is also known as *Rosa lævigata* and *Rosa ternata*.

Our popular Double White Banksian Rose is almost universally known and admired. It was introduced in 1807; and very large plants are now to be seen in some situations. The flowers of the White Banksian Rose have a slight violet-like perfume, very agreeable. The Yellow Banksian Rose was brought to this country in 1827. This is a beautiful variety, with scentless straw-coloured flowers, a little inclining to buff: they are, like the flowers of the white, very small and double. Both these roses bloom early in May; and large plants, covered with their clusters of flowers, have a pretty but most un-rose-like appearance. The new Yellow Banksian Rose, *Jaune Serin*, has larger flowers than the preceding,

and is really a fine and vigorous growing variety. *Rosa Fortuniana*, a new white Banksian rose introduced from China by Mr. Fortune, in 1850, gives white flowers very double, as large as those of the *Noisette Aimée Vibert*. They are very fragrant, and the rose is a most desirable variety.

The Banksian roses are not adapted for pillar roses, as they are too tender: they require a wall, or very sheltered situation. Their very early flowering, also, renders this quite necessary, as the spring frosts, in cold exposures, destroy the bloom in the bud. They bloom more freely in dry than in wet, retentive soils, and they require pruning with care, for none of the small and twiggy branches should be shortened: but, if the plant has a superabundance, some of them may be removed. If their branches are shortened, they will not bloom, but put forth a profusion of strong shoots. The flowers will be generally found in the greatest abundance on these small and twiggy branches, which at once points out the necessity of their being left on the plant. Often, towards the end of summer, large old plants will produce immensely thick and strong shoots. These should be removed early in autumn, unless they are wanted to fill up a vacancy on the wall; the upper part of the plant, and its flowering twigs, will then not be exhausted by them.

Banksian roses seldom bear seed in this country; but in the south of France, and in Italy,

they produce it in tolerable abundance; so that we may yet expect crimson and other coloured roses of this charming family.

CLIMBING ROSES.

DIVISION VI.

HYBRID CLIMBING ROSES.

THESE are hardy and strong-growing roses, the origin of some of them not well ascertained. Among them, Madame d'Arblay, or Wells' White, has been till now placed among *Rosa semper-virens*; but its habit is so different, and its origin so well ascertained, that I have removed it to this division: this robust variety was raised from seed some years since by Mr. Wells, of Redleaf, near Tonbridge Wells. In strong soils it makes the most gigantic growth, soon forming a tree or a pillar of the largest size: its flowers are very double and pretty. The Garland, or Wood's Garland, is also a seedling, raised by Mr. Wells, of Redleaf, I believe, from the seed of the Noisette Rose. Like Madame d'Arblay, this is a vigorous grower, producing its flowers in immense clusters. They are fragrant, and change from white to pink after expansion.

To Hybrid Climbing Roses a very singular and

pretty variety has been added. This I have raised from Italian seed. It produces abundance of flowers in large clusters, of a bright crimson scarlet, nearly double, and, what is very rare among climbing roses, they are very fragrant. I have named this rose 'Sir John Sebright.' Sir John was a great admirer of brilliant-coloured climbing roses.

A family of climbing roses has been lately introduced from North America; we owe this group to *Rosa rubifolia*, the Bramble-leaved or Prairie Rose. A Mr. Feast, nurseryman at Baltimore, has been the originator of a few varieties, one of which is described as being an autumnal bloomer. The Queen of the Prairies is one of the best of these roses, producing its flowers, which are rather flat, and regularly imbricated, in large clusters; these are of a bright rose-colour, streaked with white; its foliage is large, and habit very robust; it requires a very dry season; many varieties of this race have within these few years been introduced and advertised under fine sounding names. I will dismiss them at once by saying, they are none of them worthy of cultivation.

Raising Varieties from Seed.

Among climbing roses but few can be found that will bear seed in this country, the Ayrshire Roses excepted, from some of which it is probable

that some fine and original climbers may be raised. A most desirable object to obtain is a dark crimson *Rosa ruga*; this may possibly be accomplished by planting that favourite rose with the Ayrshire Queen, and fertilising its flowers very carefully with those of that dark rose. It is remarkable that although these roses are both hybrids, from species apparently very remote in their affinities, yet both of them bear seed, even without being fertilised. The Blush Ayrshire, a most abundant seed-bearer, may also be planted with the Ayrshire Queen, the Gloire de Rosoméne, the Double Yellow Briar, Single Crimson Moss, Celina Moss, the China Rose Fabvier, and its flowers fertilised with the pollen of these roses; if any combination can be effected, pleasing results may reasonably be hoped for. To 'make assurance doubly sure,' the anthers of the Ayrshire Rose should be removed from some of the flowers with which the experiment is tried.

PART II.

THE AUTUMNAL ROSE GARDEN.

To Autumnal Roses we are much indebted for that prolonged season of interest which this 'Queen of flowers' now gives. The roses of June, however splendid, soon fade; but some Perpetual, or Noisette, or Bourbon roses enrich our gardens with their perfume and gay colours, till the chills of approaching winter prevent the expansion of their flowers. To have roses in autumn has from the earliest ages been esteemed a luxury; the Egyptians cultivated a variety supposed to be our monthly rose; and by retarding the flowering season, it is presumed, by late pruning, they were able to export immense quantities of roses to Rome during the early winter months, i. e. in November and December. Whether the *trees* were sent full of bloom-buds, in pots or cases, or simply the flowers preserved in some way, is uncertain. It appears, however, that the Romans soon became adepts in the art of cultivating autumnal roses; for when the Egyptians sent a magnificent present of roses to

Domitian, on his birth-day, which was towards the middle of November, it excited only laughter and disdain among the Romans. So abundant were they then in Rome, that, to quote Martial, ‘In all the streets we inhale the perfumes of spring, and see sparkling the fresh garlands of flowers; send us wheat, Egyptians, and we will send you roses.’*

It seems, also, that the Romans forced flowers by means of hot water, in their forcing houses, so as to produce roses and lilies in December, for Seneca † declaims against these inventions. Martial also says, book 12, epigram 127, ‘That roses, formerly only seen in spring, had in his time become common during the winter.’ If we may thus judge from the ancients, our autumnal and our winter roses, and even our forcing by hot water, which has been thought to be so recent an invention, are all of high antiquity; but, if we may credit Pliny and others, the Romans could not approach us in variety. The rose of Pæstum, the *Rosa bifera* alluded to by Virgil ‡, appears to have been the only autumnal rose known. This, according to Pliny, bloomed in the spring, and again in the autumn. Many botanists have

* Martial, book vi. epigram 80.

† ‘Non vivunt contra naturam, qui hieme concupiscunt Rosam. Fomentoque aquarum calentium, et calorum apta imitatione, bruma liliū florem vernum exprimunt?’—Epist. cxxii. 8.

‡ Georgics, book iv. verse 18.

searched for this rose near the ruins of Pæstum, and other parts of Italy, but no species or variety has been found at all approaching to it in character. Our very old Damask Rose, the Red Monthly, not the comparatively new rose, 'Rose à Quatre Saisons' of the French, but the Red Monthly rose of our oldest writers on gardening, is probably the rose which was cultivated so extensively in Egypt and in Rome for its quality of flowering in autumn. I have frequently observed the stools* of this variety, when pruned late in spring, not only to flower in June and September, but also in the latter month to put forth branches, which in October were covered with flower buds. Now these, owing to our cold rains in November, never come to perfection; but in the warm climates of Egypt and Italy, they would doubtless bloom abundantly even as late as November. Modern gardening has made rapid strides in rose culture: our varieties of autumnal roses are already almost innumerable; and among them are the most fragrant and beautiful roses known.

THE PERPETUAL MOSS ROSE.

A NEW race of moss roses has within these few years sprung up, and likely to be very interesting. They are not abundant autumnal bloomers, but

* These are old plants used for layering, and are cut down closely every season.

still they *do* bloom under good culture. *Perpétuelle Mauget*, a rose raised at Orleans some years ago, is a very pretty rose, but it is a most delicate grower: budded on the rose *Félicité Perpétue* it may, perhaps, be made to do better. Its flowers are very double, well shaped, and of a nice bright rose-colour. The *Perpetual White Moss Rose* is one of the oldest varieties in this group, and was originated in France about thirty years since; this is a variety of the *White Monthly Damask Rose*; it blooms in large clusters in autumn; its flowers are small and very fragrant: it is useful to form a bed on its own roots.

General Drouet has semi-double flowers of a bright crimson; and is a vigorous growing variety.

Recently some new and desirable roses of this family have been introduced, one of the finest of which is *Madame Ory*; this, with a dwarf and rather compact nature, has flowers of medium size, of rather a deep rose-colour, nicely cupped and very double; it blooms very freely in autumn, and has the delicious perfume of the *Old Moss Rose*: it is by far one of the most charming roses of this group.

Salet is also a new variety, of much more vigorous growth than the preceding, often making shoots three feet in length; its flowers are of a pale rose, of medium size, and very sweet: it blooms freely in autumn.

There are some other *Autumnal Moss Roses*, very pretty and fragrant; such are *Celine Briant*

and Marie de Bourgogne, both dwarf and free blooming; and then we have as new roses of this class, Impératrice Eugénie, and Alfred de Dalmas, both of them pretty, but not very distinct; and Emile de Girardin and Gloire d'Orient, vigorous growers, but not well inclined to bloom in autumn. There are many other varieties of this family in the rose catalogues, but none equal to Madame Ory in beauty and fragrance of her flowers, and none to be compared with Salet for the beauty of its buds; in September, its flowers are not perfect when open, but its buds are fragrant as those of the old Moss Rose in June. So let us dismiss our new friends with a hope and certain anticipation of much ultimate improvement in variety of colour and tendency to give us moss roses in autumn. The culture of these hybrid moss roses should be the same as that of the Hybrid Perpetuals, but to ensure their blooming freely in autumn, they should be lifted and replanted with some fresh compost annually in November.

THE PERPETUAL DAMASK ROSE.

(*Rosier Damas à fleurs perpétuelles.*)

THIS division has as much variety in its origin as in its appearance; it would, indeed, be a difficult task to trace the parentage of some of the justly

esteemed varieties of this family. Our old red and white monthly roses have, no doubt, contributed their share of sweet assistance; for, in many of them, the powerful fragrance of these two very old damask roses is apparent, and no perfume can be more pleasing.

As an old rose lover one feels regret that these once unique and charming autumnal roses must pass away. In fragrance they are equalled by our next group, and in freedom of blooming in autumn, brilliancy of colour, vigorous growth, and, in short, perfection of all that a rose can be; Hybrid Perpetual Roses infinitely surpass the varieties of this once interesting family. It is, however, quite fit and proper that their history should be given here, or our New Zealanders, A.D. 2500, may be at a loss to know what roses we cultivated in the middle of the nineteenth century. I record their qualities with a sentimental sigh worthy of a young lady who has finished reading her first novel.

Bernard is a most beautiful rose, with rather small flowers; but these are very double and finely shaped, of a delicate pink tinted with salmon, and very fragrant. This rose will flourish better on the Manetti stock than on the Dog Rose: it is a most desirable rose.

The Crimson Perpetual, Rose du Roi, or Lee's Crimson Perpetual, deserves a few extra words of comment. This fine rose was raised from seed,

in 1812, in the gardens of the palace of Saint Cloud, then under the direction of Le Comte Lelieur, and named Rose du Roi; owing, I suppose, to Louis XVIII. soon after that time being restored, and presenting an opportunity for the Court gardeners to show their loyalty: it is not recorded that its name was changed during the hundred days to Rose de l'Empereur! It is asserted that it was raised from the Rosa Portlandica, a semi-double bright-coloured rose, much like the rose known in this country as the Scarlet Four Seasons, or Rosa Pæstana; which, Eustace tells us, in his Classical Tour, grows among the ruins of Pæstum, enlivening them with its brilliant autumnal flowers. This proves to be a traveller's tale.

In France the Crimson Perpetual bears seed abundantly, but its produce are, for the most part, varieties partaking largely of Rosa Gallica; it is, however, like our old and excellent Provence Rose, liable to sport: in this way it produced the Rose Bernard; and more recently a good variety has been originated in the same manner; but, like most good roses, it has more than one name. Rose du Roi à fleurs pourpres is its legitimate appellation. A cultivator in France, *un peu de charlatan*, named it Mogador, soon after the French victory over the Moors. It has proved, indeed, a superb rose: colour, brilliant crimson, slightly shaded with purple: shape, cupped and

elegant: its flowers are, perhaps, a little more double than those of its parent; and its habit is more robust. Laurence de Montmorency is a good rose; flowers, very large, cupped, finely shaped, and very double; colour, deep rosy pink, tinted with lilac. I observe that its foliage has lost the downy appearance of the Damask rose; thus showing its departure from the habits of this family; another remove, and it would have been placed with justice among the Hybrid Perpetuals. Madame Théliér is a delicate and pretty rose; colour, pink; flowers, middle-sized; habit, rather delicate.

Celina Dubos, a white, or nearly white, rose of this group, is really worthy of attention, both from its origin and quality. It is said to have been originated from a sporting branch of the Crimson Perpetual; its flowers are well shaped, very durable, and highly fragrant.

Culture and Pruning.

As the culture of this class of roses is at present but imperfectly understood, I shall give the result of my experience as to their cultivation, with suggestions to be acted upon according to circumstances. One peculiar feature they nearly all possess—a reluctance to root when layered; consequently, Perpetual Damask Roses, on their own roots, will always be scarce: when it is possible

to procure them, they will be found to flourish much better on dry poor soils than when budded, as at present. These roses require a superabundant quantity of food: it is therefore perfectly ridiculous to plant them on dry lawns, to suffer the grass to grow close up to their stems, and not to give them a particle of manure for years. Under these circumstances, the best varieties, even the *Rose du Roi*, will scarcely ever give a second series of flowers. To remedy the inimical nature of dry soils to this class of roses, an annual application of manure on the surface of the soil is quite necessary. The ground must not be dug, but lightly pricked over with a fork in November; after which, some manure must be laid on, about two or three inches in depth, which ought not to be disturbed, except to clean with the hoe and rake, till the following autumn. This, in some situations, in the spring months, will be unsightly: in such cases, cover with some nice green moss, as directed in the culture of Hybrid China Roses. I have said that this treatment is applicable to dry poor soils; but even in good rose soils it is almost necessary; for it will give such increased vigour, and such a prolongation of the flowering season, as amply to repay the labour bestowed. If the soil be prepared, as directed, they will twice in the year require pruning: in November, when the beds are dressed, and again in the beginning of June. In the November pruning, cut off from

every shoot of the preceding summer's growth about two-thirds its length; if they are crowded, remove some of them entirely. If this autumnal pruning is attended to, there will be, early in June, the following summer, a vast number of luxuriant shoots, each crowned with a cluster of buds. Now, as June roses are always abundant, a little sacrifice must be made to insure a fine autumnal bloom; therefore, leave only half the number of shoots to bring forth their summer flowers, the remainder shorten to about half their length. Each shortened branch will soon put forth buds; and in August and September the plants will again be covered with flowers. In cultivating Perpetual Roses of all classes, the faded flowers ought immediately to be removed; for in autumn the petals do not fall off readily, but lose their colour and remain on the plant, to the injury of the forthcoming buds. Though I have recommended them to be grown on their own roots, in dry soils, yet, on account of the autumnal rains dashing the dirt upon their flowers when close to the ground, wherever it is possible to make budded roses grow, they ought to be preferred; for, on stems from one to two feet in height, the flowers will not be soiled; they are also brought near to the eye, and the plant forms a neat and pretty object.

The Crimson, and, indeed, nearly all the Perpetuals, force admirably; for this purpose, it is

better to graft or bud them on the Manetti Rose, as it is so easily excited. Those who wish for the luxury of forced roses, at a trifling cost, may have them by pursuing the following simple method:—Take a common garden frame, large or small, according to the number of roses wanted; raise it on some posts, so that the bottom edge will be about three feet from the ground at the back of the frame, and two feet in front, sloping to the south. If it is two feet deep, this will give a depth of five feet under the lights, at the back of the frame, which will admit roses on little stems as well as dwarfs. Grafted or budded plants of any of the Perpetual Roses should be potted in October, in a rich compost of equal portions of rotten dung and loam, in pots about eight inches deep, and seven inches over, and plunged in the soil at bottom. The air in the frame may be heated by linings of hot dung; but care must be taken that the dung be turned over two or three times before it is used, otherwise the rank and noxious steam will kill the young and tender shoots; but the hazard of this may be avoided, by building a wall of turf, three inches thick, from the ground to the bottom edge of the frame. This will admit the heat through it, and exclude the steam. The Perpetual Roses, thus made to bloom early, are really beautiful. They may also be forced in any description of forcing-houses, with success. It will at once give an idea how desir-

able these roses are, when it is stated that, by retarding and forcing, they may be made to bloom for eight months in the year.

Perpetual Damask Roses do not bear seed in this country freely; but Mogador may be planted near and fertilised with the Common Bourbon. An attempt to obtain a mossy Crimson Perpetual might be made by planting and fertilising the Crimson Perpetual with the Single Crimson Moss. In the cultivation of roses and many other gardening operations, we must never really despair.

THE HYBRID PERPETUAL ROSE.

(Rosier Hybride Remontante.)

THIS class has now become rich in beautiful roses. In p. 29 is given the origin of Hybrid China Roses, which, it is well known, bloom but once in the season. Some of these hybrids or mules, unlike many plants of the same description, bear seed freely. These fertile varieties have been crossed with different varieties of China and Bourbon Roses. From seed thus produced we have gained a new race of autumnal roses, bearing abundance of flowers during the whole of the summer and autumn, and now called Hybrid Perpetuals. Certainly a more beautiful and interesting class of roses does not exist; their flowers

are large, very double, most fragrant, and produced till the end of October. Their habit is robust and vigorous in a remarkable degree; and, above all, they are perfectly hardy, and will grow well in any climate in Great Britain, however far north; but caution will be required in selecting varieties for cold and damp localities, as those only that open their flowers freely should be planted. Some that are fine roses in a dry southern climate, and also when forced, in a moist climate, will seldom or never open their flowers.

So many fine varieties are now (1863) in cultivation, that sorts adapted to all climates may be selected; and so magnificent are many of the new roses in this family, that it appears to me in a few years they will supersede all others, except it be a few Bourbon and Tea-scented Roses, which have characters very distinct and interesting.

The esteem these roses are now held in has led, as usual, to abuse. We are overburthened with varieties. Some cultivators enumerate nearly 300, divided into groups, having 'affinities and characteristics.' These groups only tend to confuse the amateur, and are really of no use and no guide; for what resemblance in habit—the great point for the amateur—has *Géant des Batailles* or *Gloire de Rosomène* with *Pauline Bonaparte* and *Ernestine de Barante*? They cannot be planted in the same group with propriety. The French cultivators have carried this division

into 'groups' to excess; but it appears to me, and this has always been my opinion, that we cannot enough simplify the classification of roses. One division, headed Hybrid Perpetual Roses, ought to include all from their origin deserving that name; and those that diverge from the general characters of the family, in being very dwarf or otherwise *very* different, may have their characters attached to their names.

I can only give here the names of a few of the most choice in this class; and those described, whether old or new varieties, may be depended upon as admissible into the choicest collections. I shall describe them in groups according to the colours of their flowers, commencing with those with

DARK CRIMSON.

There are, as yet, but few varieties of this class of colour; I mean, with those dark velvety petals so common among the French Roses and Hybrid Chinas; and those hitherto cultivated are not very double. We have however recently, i. e. since 1862, received from France some very dark and very beautiful varieties. Among these *Empereur de Maroc* takes a front rank: its flowers are not large, nor perfectly cupped, like those of *Madame Vidot*, yet they are most beautiful, their colour is so remarkably rich. *Alexandre Dumas*, *Prairie de Terre Noire*, and *André Leroy*,

are dark roses shaded with purple; their flowers are full sized, and very double and effective. Vulcan with a dwarf habit gives small flowers of a deep purplish maroon colour; Prince Noir and Prince de la Moskowa are two remarkably dark roses—almost black; their petals are large and rich in colour, but their flowers are not full, like such roses as Jules Margottin. A new rose of this group has just been introduced, under the name of Deuil de Prince Albert, and described as giving flowers ‘cramoissi noir très-foncé;’ its central petals are not so deep in colour. This is a striking variety, likely to be popular for its distinct character.

CRIMSON.

There are many shades of this colour in the roses of this family, depending for their brilliancy much upon climate, season, and situation. Among the most brilliant is the well-known Géant des Batailles, the most bright and brilliant of all roses, and at the same time one of the most hardy and free-growing. No rose, of late years, has been, or is, so popular. As an instance of this I may mention that, in the autumn of 1849, 8000 standards and dwarfs of this variety were dispersed over the whole face of the country from this place.

This beautiful and favourite rose is now the parent of a numerous family, every member of which, when first ushered into the rose world, has

been pronounced more beautiful than its far-famed parent; after a time, however, most of these promising children have settled down into esteemed members of the Géant family, but have not totally eclipsed their parent.

In enumerating the fine roses of this range of colour one is almost bewildered, so numerous are they. It would seem, when one sees a fine flower of *Senateur Vaise* just on the point of expanding, that no rose, or indeed no flower, can be more brilliant, more beautiful; yet I have sometimes bent over *Gloire de Santenay*, and thought it still more so: the flowers of both are so perfect in shape, so brilliant, and so exceedingly beautiful. Charles Lefebvre, François Lacharme, Alphonse Damaizin, Duc de Roban, Duc de Cazes, Maurice Bernardin, Madame Clemence Joigneaux, Professor Koch, Madame Julie Daran, Olivier Delhomme, *Souvenir de Comte Cavour*, and *La Brillante*, form a perfect galaxy of rose beauty. I cannot see the possibility of surpassing the above by new varieties, and yet they come, or pretend to come, every season from France. This spring some fine new varieties are ushered into the rose-world of England, and some thousands of francs have been sent over to our neighbours in exchange for a host of new names, to be added to the rose catalogues of the day, so as to perplex both buyers and sellers. This incessant introduction

of novelties without novelty is, I fear, bringing rose-cultivation to charlatanism, which can only be stemmed by the English growers being well assured of the qualities of a new rose before they recommend it. We must not pass over some old friends in this class of colour. General Jacqueminot, with its luxuriant growth and magnificent clusters of flowers, has always been a favourite, and will continue to be so, although its large crimson flowers are not so full and perfect in shape as those of the varieties I have enumerated. Triomphe des Beaux Arts, a seedling from the General, with the same beauties and defect, is also worthy of a place in the rosery. It is by cultivating such free-growing roses as pyramids (see p. 114) that their full beauty is brought out.

There is one new and beautiful rose of this class that seems to have escaped the attention of rose growers, for I do not find it in their catalogues. I mention this more particularly, because of its peculiar property of blooming profusely late in autumn. My young plants have been in full bloom all this month (November 1860). In summer it was thought not to be a first rate rose, as its flowers were much like those of General Jacqueminot, but not so double, and inclined to flaccidity, fading in sunshine. It is this thinness of petal that, like the old rose Gloire de Rosomene, makes it open its flowers and enjoy the cool autumnal months. I believe that

it will prove one of our finest Christmas roses, and should be cultivated after the method recommended in p. 114. Its flowers in winter are globular, fragrant, and of the colour of the General, from which it is evidently a seedling. I received it from France, under the name of L'Etoile du Nord.

CARMINE AND CHERRY-COLOURED.

The roses of this range of colour are, perhaps, the most chaste and pleasing of all, as their flowers are, for the most part, so elegantly shaped. General Bréa and Prince Léon (we need not add the 'Kotschoubey') are gems, the latter remarkable for its vigorous habit and fine foliage. To these now old varieties we may add Jules Margottin, which, taking it all in all—its fine colour, shape, fragrance, robust habit, and freedom of flowering, during the whole summer and autumn—may be pronounced the finest rose known. How grand are its early flowers, the personification of our old cabbage rose, with a perfume quite equal, and a bright rosy pink colour far more interesting. The Duke of Cambridge, Lord Palmerston, Le Ville de St. Denis, Madame Heraud, Madame Furtado—a perfect pattern of elegance in shape—and Madame Charles Crapelet, are the 'crème de la crème' of this group, and no roses can be more charming; they all, or nearly all, have an intensity of rose colour, if the ex-

pression may be used, which is of all colours the most pleasing; for do we not say 'the rosy morn,' the rosy hues of life, and employ many other expressions, all denoting the invariable charm of this most delightful of all tints?

ROSE-COLOURED AND PINK.

Almost numberless are the roses of this tint, so that it is really difficult to select a few that are most worthy the attention of every amateur. Our old friend *La Reine* is still, in dry seasons, most beautiful and fragrant; but her daughter, *Louise Peyronny*, is still more so, for, owing to this charming rose not being quite so double, it opens well in all seasons. *Auguste Mie* is also of the same race, and is a very nice rose. Those old varieties *Duchess of Sutherland* and *Baronne Prevost* are still well worthy of culture. *Colonel de Rougemont*, a new rose, is much like the latter; but it blooms more freely in the autumn, and is certainly more beautiful. *William Griffiths* is remarkable for the elegance and perfection of its flowers; and *Mathurin Regnier* is, if possible, more perfect in shape—it is also brighter in colour. *Madame Guinoiseau*, *Angelina Grainger*, and *Duchesse d'Orléans* are all fine first-class roses, and all well worthy of a place in a select rose garden; but let us not forget *Madame Vigneron*, a new rose, of a charming silvery rosy

lilac, which, the raiser declared when describing it, 'glistened as if powdered with silver.'

Are there yet more gems? Yes. New names, and new and fine roses; for such are Victor Verdier, with large flowers and wondrously beautiful large petals so shell-like; Madame Boll, most perfect in all that constitutes a fine rose. Another and another still; for who can pass by and not admire Comtesse de Chabrillan, Anna Alexieff, Belle de Bourg la Reine, and Anna de Diesbach? No roses can be more perfect and beautiful; and yet we may add Duchesse de Cambarérés, a most vigorous growing rose, blooming in immense clusters, giving flowers with a powerful fragrance. Of all the roses in this group, the Comtesse de Chabrillan is the most perfect in shape and delicacy of colour, like *Senateur Vaise* or *Gloire de Santenay* among crimson roses; it is quite impossible to imagine a rose more beautiful.

BLUSH AND FLESH-COLOURED.

Among the most desirable varieties in this class of colour, is *Madame Rivers*, with flowers nearly white: it is a vigorous grower, and appears to bloom well in all climates. This was raised at Lyons some ten or twelve years since by M. Guillot, and dedicated to my wife. With this very fine rose we may class *Madame Vidot*, of the same exquisite shape, but tinted with delicate pink, so

as to be wax-like and most beautiful. *Caroline de Sansal*—its flowers are of a delicate pink in the centre—is a vigorous grower and a fine rose. And then we have *Madame Ducher* and *Mademoiselle Eugénie Verdier*, roses delicate and beautiful in colour.

WHITE.

We have as yet not a long list of roses of this desirable colour. *Virginal*, a pure white rose raised from seed at Lyons, with petals rather too thin and unequal, is still a very interesting variety, and quite worthy of culture. *Louise Magnan*, a fine large double rose, which on opening is nearly pure white, becoming soon tinted with flesh-colour, is an acquisition; but it requires a warm dry climate to make it expand its flowers freely. *Dr. Henon*, with flowers rather small, white, slightly tinted with straw-colour, is a rose of delicate growth. *Mademoiselle Bonnaire* is a new and pretty white rose, with its central petals delicately tinted with pink; and *Princesse Impériale Clotilde*, still more pure in the pearly whiteness of its outer petals, with just a soupçon of pink in its centre; is a beautiful variety. To these we may now add some varieties of a new race which have been raised from seed at Lyons, the birthplace of so many fine roses. These are hybrids, partaking of the colour and nature of our fine old *Noisette Aimée Vibert*.

Louise Darzens, Lady Emily Peel, and Madame Alfred de Rougemont, are the new roses of this race, and although they do not give such large and perfect flowers as Madame Rivers or Madame Vidot, they are yet very desirable; their habit is distinct, and they bloom freely in large clusters.

DWARF HYBRID PERPETUAL ROSES.

These are pretty little gems, occupying, in this family, the place of the De Meaux and Pompon Roses among the Provence, and the Burgundy among the French. There seems among roses that have been long under cultivation an inclination to produce these pretty pigmies. There are but few worthy of culture, and Pompon or Ernestine de Barante, with charming light pink flowers, is one of the most distinct. Pompon de St. Radegonde, with rather larger flowers of a deep crimson, Vicomtesse de Belleville, and Léonie Verger, with rose-coloured pretty little flowers, are all distinct; and Pauline Bonaparte, with small nicely-shaped flowers of a pure white, completes the list.

These dwarf autumnal roses are rather delicate in their habits, and not at all adapted for standards. In light rich favourable soils, and in a mild climate, they would form beautiful edging plants; and, as little pet plants for pot culture, they are esteemed by lady amateurs.

Culture and Pruning.

All the robust-growing varieties of this family form admirable standards, and are particularly well adapted for planting in rows by the sides of walks, giving them plenty of manure, and the necessary culture required by these roses to make them bloom freely in autumn—i. e. removing a portion of their bloom buds in June; thus, if there are ten clusters of bloom making their appearance, cut off five to within about three buds of the base of each shoot: these will soon push forth, and give fine flowers in August. Constant care should be taken to remove in the same manner all the clusters of blooms as soon as they fade. *Baronne Prevost* and a few others are very apt to make barren shoots without terminal flowers. As soon as this can be ascertained, cut all such shoots to within six or eight buds of their base; they will then, in most cases, give fertile branches: in short, these roses require much summer pruning and attention to make them flower in great perfection in autumn.

The winter pruning of these roses is best performed at two or even at three periods; in November for those required to bloom early, and towards the end of March, or even later, if it is wished to retard them: these may be called peculiar seasons for a special purpose; but the general

season should be towards the end of February if the weather be mild. This winter pruning may be described in very few words, for nothing is more irksome than lengthy pedantic descriptions of simple operations: to prune these roses, then, in winter, is merely to cut off from each vigorous shoot of the preceding summer, two-thirds of its length, and from those of less vigour three-fourths of their length, taking care not to leave too many of these shortened shoots, for the tree will then become crowded in the summer; but after shortening them, cut some of them out cleanly, so as to leave a nice well-disposed frame to be filled up the succeeding summer by beautiful leaves and still more beautiful flowers.

For beds or dwarf trees or bushes, perhaps no roses are so admirably adapted. The summer thinning and pruning above recommended is quite necessary, and they will amply repay any extra care. For this kind of culture, however—I speak from the firmest convictions, brought on by long experience—there is *no mode equal to the removal system*. Generally this may be done biennially; but in light, poor, easily exhausted soils, it may be done annually: early in November is the best period, and the mode very simple:—Take up every plant carefully, and shorten any long straggling roots to within the compass of the usual mass of fibrous roots; stir the border well with Winton Parkes' steel forks to the depth of

twenty inches, then prune them and replant the trees, giving to each one or two shovelful of rotten manure and loam, equal parts, if the soil be light and sandy; rotten manure and road sand, if it be cold and heavy; one shovelful will do if the trees are removed annually, two will be required if they are removed biennially. Standards, when they do not flourish and give their flowers in autumn, may be treated in the same manner with great advantage.

As pillar roses some of the vigorous-growing varieties are highly eligible; they should be treated in the same manner as recommended for summer pillar roses, given in p. 35: they will cover a pole about eight feet high well; but unless in very rich soils they cannot be depended upon to form a healthy pillar of greater height. *Baronne Prevost*, *Caroline de Sansal*, *Jules Margottin*, *Duchesse de Cambacérès*, *Madame Rivers*, *Colonel de Rougemont*, *General Jacqueminot*, *Triomphe des Beaux Arts*, *Triomphe d'Alençon*, *Triomphe de l'Exposition*, *Madame Louise Carique*, *Anna de Diesbach*, and *Lord Raglan*, are all nice varieties for this purpose.

PYRAMIDAL HYBRID PERPETUALS.

Standard roses, inartistic and unpicturesque as they are, have 'held their own' for some years. It is time that some new rose idea was originated,

and I hope, ere long, to have standard roses spoken of as things of the past—like stage coaches and road waggons. The culture of pyramidal roses will require more care and time than the culture of standards, which we all know is very simple; but the rose gardener will be amply compensated by such glorious effects as have never yet been seen in our roseries.

Like all really good gardening ideas, the culture of rose pyramids, although requiring more time and care than the culture of standard and dwarf roses, is still very simple, and may be carried out as follows:—

Some strong two years old stocks of the Manetti Rose should be planted in November, in a piece of ground well exposed to sun and air. The soil should have dressings of manure, and be stirred to nearly two feet in depth. In the months of July and August of the following year they will be in a fit state to bud. They should have one bud inserted in each stock close to the ground. The sort to be chosen for this preliminary budding is a very old Hybrid China Rose, called Madame Pisaroni, a rose with a most vigorous and robust habit, which, budded in strong Manetti stocks, will often make shoots from six to seven feet in length, and stout and robust in proportion. In the month of February following, the stocks in which are live buds should be all cut down to within six inches of the bud.

In May the buds will begin to shoot vigorously; if there are more shoots than one from each bud they must be removed, leaving only one, which in June should be supported with a slight stake, or the wind may displace it. By the end of August this shoot ought to be from five to six feet in height, and is then in a proper state for budding to form a pyramid. Some of the most free-growing and beautiful of the Hybrid Perpetual Roses should be selected and budded on these stems in the following manner:—Commence about nine inches from the ground, inserting one bud: then on the opposite side of the stock and at the same distance from the lower bud, insert another; and then at the same distance another and another, so that buds are on all sides of the tree up to about five feet in height, which, in the aggregate, may amount to nine buds. You will thus have formed the foundation of a pyramid which should be like the annexed figure, which is assumed to be a pyramid just pushing forth its flowers in June.

I need scarcely add that the shoots from the stock must be carefully removed during the growing season, so as to throw all its strength into the buds. It will also be advisable to pinch in the three topmost buds rather severely the first season, or they will, to use a common expression, draw up the sap too rapidly, and thus weaken the lower buds. In the course

of a year or two magnificent pyramids may thus be formed, their stems completely covered with foliage, and far surpassing anything yet seen in rose culture. I have, as yet, found no rose equal



in vigour to Madame Pisaroni, although, when attention is turned to the subject, other varieties may perhaps be found. If extra strong growth be desired, the stem may be suffered to grow two seasons before it is budded.

To those who think the trouble of budding and re-budding too much, I may point out a more simple method, which I extract from the 'Gardener's Annual for 1863.'—(Longmans.)

'Have some dog-rose stocks gathered from the woods and hedges in November, December, or January. Every stock selected should be of only one year's growth, a young shoot of the preceding season's growth. They should be planted in a deep rich soil, and some manure placed on the surface round their stems. In spring and early summer the young shoots should be removed from the lower part of their stems within, say, a foot of the ground, and all the remaining shoots suffered to grow as they list. In the months of July and August they may be budded after the following mode:—Take some free-growing beautiful Hybrid Perpetual, and place one bud *in the stem*, mind, of your stock about nine inches from the ground, and then on the opposite side of the stem place another bud and so on, shifting sides to about three, or four, or five feet in height. When these buds break out in the following May, be sure and pinch in closely the three or four buds at the top of the stock, or they will greedily drink too much of the precious sap. A rose-lover must imagine the great beauty of such a pillar of Empereur de Maroc or Sénateur Vaise; if his constitution be not strong, the sight might make him die of a rose in aromatic pain.'

The most free-growing kinds, such as Jules

Margottin, General Jacqueminot, Colonel de Rougemont, Triomphe des Beaux Arts, Lord Raglan, Souvenir de la Reine d'Angleterre, Triomphe de l'Exposition, and other kinds of vigorous habit, these will form grand pyramids from six to seven feet in height. For smaller pyramids those of more moderate growth may be selected. It will scarcely be advisable to bud more than one sort on a stem, as no two kinds will be found equal in growth, but as a matter of fancy varieties of different colours may be inserted so as to make a variegated pyramid. Vigorous growing Bourbon roses may be employed for pyramids and Tea-scented and Noisette roses, as the stock is highly favourable to their growth, but they should be protected in winter by fern or branches of evergreens tied round them.

Raising Varieties from Seed.

Raising new varieties of this family from seed presents an extensive field of interest to the amateur; for we have yet to add to our catalogues pure white, and yellow, and fawn-coloured Hybrid Perpetuals, and these, I anticipate, will be the reward of those who persevere. Monsieur Laffay, by persevering through two or three generations, obtained a Mossy Hybrid Bourbon Rose, and many of the finest varieties described in the foregoing pages. This information will, I trust, be an incentive to amateurs in this country:

to illustrate this I may here remark that a yellow Ayrshire Rose, now a desideratum, must not be expected from the first trial; but probably a climbing rose, tinged with yellow or buff, may be the fruit of the first crossing. This variety must again be crossed with a yellow rose: the second generation will, perhaps, be nearer the end wished for. Again, the amateur must bring perseverance and skill into action; and then if, in the third generation, a bright yellow climbing rose be obtained, its possession will amply repay the labour bestowed: but these light gardening operations are not labour; they are a delightful amusement to a refined mind, and lead it to reflect on the wonderful infinities of nature.

Madame Laffay is an excellent seed-bearing rose; this may be fertilised with the Bourbon Gloire de Rosomène, and with Comte Bobrinsky. General Jacqueminot may be crossed with Sénateur Vaise or La Brillante. These should all be planted against a south wall, so that their flowers expand at the same time; and their seed will probably give some fine autumnal roses, brilliant in colour and very double. For fawn-coloured or yellowish and white roses, Duchess of Sutherland may be fertilised with the Tea-scented Roses, Victoria and Safrano. These must all have a south wall. These hints may possibly be considered meagre and incomplete; but I trust it will be seen how much depends upon the enterprise and taste of the cultivator.

THE BOURBON ROSE.

(ROSA BOURBONIANA.)

Rosier de l'Île Bourbon.

It is now, perhaps, about thirty years since a beautiful semi-double rose, with brilliant rose-coloured flowers, prominent buds, and nearly evergreen foliage, made its appearance in this country, under the name of 'L'Île de Bourbon Rose,' said to have been imported from the Mauritius to France in 1822, by M. Noisette. It attracted attention by its peculiar habit, but more particularly by its abundant autumnal flowering; still, such was the lukewarmness of English rose amateurs, that no attempts were made to improve this pretty, imperfect rose, by raising seedlings from it, though it bore seed in large quantities. This pleasing task has been left to our rose-loving neighbours the French, who have been very industrious, and, as a matter of course, have originated some very beautiful and striking varieties, and also, as usual in such cases, have given us rather too many distinct and fine-sounding names attached to flowers without distinctive characters. In a little time we shall be able to rectify this very common floricultural error. Many fables have been told by the French respecting the origin of this rose. The most generally received version of one of these is, that a French naval

officer was requested by the widow of a Monsieur Edouard, residing in the island, to find, on his voyage to India, some rare rose, and that, on his return to L'Ile de Bourbon, he brought with him this rose, which she planted on her husband's grave: it was then called Rose Edouard, and sent to France as 'Rose de L'Ile de Bourbon.' This is pretty enough, but entirely devoid of truth. Monsieur Bréon, a French botanist, gives the following account, for the truth of which he vouches:—'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 Red Four-Seasons. Monsieur Perichon, a proprietor at Saint Benoist, in the Isle, in planting one of these hedges, found amongst his young plants one very different from the other in its shoots and foliage. This induced him to plant it in his garden. It flowered the following year; and, as he anticipated, proved to be of quite a new race, and differing much from the above two roses, *which, at the time, were the only sorts known in the island.* Monsieur Bréon arrived at Bourbon in 1817, as botanical traveller for the Government of France, and curator of the Botanical and Naturalisation Garden there. He propagated this rose very largely, and sent plants and seeds of it, in 1822, to Monsieur Jacques,*

* Whence the name often given to the Common Bourbon Rose of 'Bourbon Jacques.'

gardener at the Château de Neuilly, near Paris, who distributed them among the rose cultivators of France.' M. Bréon named it 'Rose de L'Ile de Bourbon;' and is convinced that it is a hybrid from one of the above roses, and a native of the island. Owing to the original being a hybrid, the roses of this family vary much in their characters; most of them form compact bushes, and are nicely adapted for rose beds; others are so vigorous as to be eligible only for pillar and wall roses. The varieties, as in the preceding family, are by far too numerous; a selection divided into groups of colour, will, I think, give all that my readers require.

DARK CRIMSON.

Our old favourites, Paul Joseph and Dupetit Thouars, still hold their rank in this class of colour; and Vorace, Jurie, Souvenir de l'Exposition, Réveil, and Adelaide Bougère,—the three latter remarkable for richness of colour,—are well worthy the attention of the rose amateur. Dr. Leprestre and Victor Emanuel, the latter remarkable for its richly-coloured and finely-shaped flowers, are fine roses; but in this class a new rose, La Quintinie, raised at St. Denis, is one of the finest of all; it is of the rich velvety hue of our old hybrid George the Fourth, its flowers are large and finely shaped, and it is altogether a magnificent rose, but delicate in its habit.

LIGHT CRIMSON.

There are some nice roses in this range of colour, and among them Prince Albert, raised at Fontenay aux Roses, and introduced by Messrs. Paul; Aurore du Guide, with fine large globular flowers, Comte du Rambuteau, and Souvenir d'un Frère, are worthy of selection. A bright cherry-coloured rose, Baron Gonella, is a fine variety; it blooms in large corymbs, and is distinct and beautiful.

CARMINE.

This is a colour peculiar to Bourbon roses, and most beautiful it is; to these we owe all our fine carmine Hybrid Perpetuals. Menoux is still one of the most vivid. Marquis de Moyria, Henri Lecoq, Justine, and Vicomte de Cussy, complete a group of most charming roses, all of nearly uniform growth, and calculated to form a pretty group.

ROSE-COLOURED.

In this group are some roses of the most perfect and elegant shape it is possible to conceive. In this opinion all will concur who have seen the following varieties: Louise Odier, Catherine Guillot, and Modèle de Perfection; they differ slightly in shades of colour, but in shape they are all

models of perfection, and should be in every rosery. Bouquet de Flore and Le Florifère are two old varieties, robust and hardy, blooming freely in the autumn.

BLUSH AND FLESH-COLOURED.

There is a peculiar silvery blush appertaining to some Bourbon Roses, very remarkable and pleasing. Comtesse de Barbantanne, Impératrice Eugénie, and Madame Comtesse, are of this delicate colour; but the rose of this group is Souvenir de la Malmaison, now an old variety, but as yet unrivalled in its noble flowers, so delicate in colour and so truly beautiful.

WHITE AND FAWN-COLOURED.

Only one really good White Bourbon Rose exists at present, an old favourite, and deservedly so, Acidalie. Who that has seen this beautiful rose in fine calm weather in September, has been able to withhold intense admiration? Its large globular finely-shaped flowers of the purest white, delicately tinted with purplish rose, seem always to be drooping with beauty. Yes, it is indeed unique and charming. Madame Angelina, with cream-coloured flowers, and the Queen of the Bourbons, with rosy fawn-coloured flowers, are also quite unique in their colouring, and well worthy of cultivation.

There are a few Bourbon Roses, of remarkably vigorous habits, scarcely adapted for planting in beds, as are all those above described,—such are Apolline, of a beautiful and glossy rose colour; Louise Odier, *almost* equal to Coupe d'Hébé in the shape of its bright rose-coloured flowers; Paxton, a vigorous grower, with flowers of the same colour; Impératrice Eugénie, with large rose-coloured flowers; and Souvenir de la Malmaison, all vigorous-growing roses, and amongst the finest for pillar roses. They will require the treatment recommended for summer pillar roses in p. 35. For light soils, these Bourbon pillar roses should be budded on the Manetti Rose. For deep rich soils they will do very well on their own roots, or budded on dwarf stocks of the Dog Rose.

Culture.

All the varieties noticed in the foregoing pages as of moderate growth, form beautiful bushes on their own roots, or budded on the Manetti or Celine stocks; they are also very beautiful as dwarf standards, i.e. on stems from eighteen inches to two feet in height, on the Dog Rose, and also, as low standards, on stems from three to three and a half feet in height; they cannot be cultivated with success on very tall stems; even as low standards, they require high culture. The Pillar Bourbon Roses may be cultivated as tall

standards with advantage, i.e. on stems about four feet high, the usual height of standard roses. They cannot be too highly cultivated; abundance of manure water in summer should be given to them, and the surface round each stem kept covered with moss, or the short grass mown from the lawn. For the window gardens, mentioned in *Gardeners' Chronicle*, No. XIX., 1846, all the varieties of moderate growth and bushy habits will be found admirably adapted. These, with their rich foliage, beautiful and perfect flowers, and ever-blooming habits, need but a passing word of recommendation; indeed, all the varieties described in the foregoing paragraphs are most desirable for pot culture; they all force well; but it must be confessed that the Hybrid and Damask Perpetuals are most desirable for that purpose, on account of the almost unrivalled fragrance of their flowers.

I hope in a few years to see Bourbon Roses in every garden, for the 'queen of flowers' boasts no members of her court more beautiful; their fragrance also is delicate and pleasing, more particularly in the autumn; they ought to occupy a distinguished place in the autumnal rose garden, in clumps or beds, as standards, and as pillars; in any, and in all situations, they must and will please. To insure a very late autumnal bloom, a collection of dwarf standards, i.e. stems one to two feet in height, should be potted in large pots, and

during summer watered with manure water and some manure kept on the surface; towards the end of September or the middle of October, if the weather be wet, they may be placed under glass: they will bloom in fine perfection even as late as November.

Pruning.

These roses require but little pruning: towards the end of March or beginning of April their shoots may be thinned, those that have been killed by the winter removed, and long shoots shortened to within four or five buds. In summer, the ends of the long vigorous shoots that are often made by Pillar Bourbons when cultivated as standards, should be pinched off, so as to make them break into numerous blooming shoots.

Raising Varieties from Seed.

It is difficult to point out roses of this family that bear seed freely, except the Common Bourbon; but Acidalie, planted against a south wall, would probably give some seed; its flowers might be fertilised with the pollen of the Tea-scented Rose Pactolus. Bouquet de Flore may be planted against a south wall, with Menoux, with which it should be carefully fertilised: some interesting varieties may be expected from seed thus produced. Queen of the Bourbons, planted with the Yellow China Rose, might

possibly give some seeds; but those would not produce true Bourbon Roses, as the former is a hybrid, partaking of the qualities of the Tea-scented Roses. *Modèle de Perfection*, planted near and fertilised with some white Tea-scented Rose, would give seed from which some very delicate Blush Roses might be raised; and *Le Florifère*, fertilised with the Common Bourbon, would also probably produce seed worthy of attention.

THE CHINA ROSE.

(*ROSA INDICA.*)

Rosier Bengale.

THIS rose is said by botanists to be a native of China, from whence it was introduced to our gardens in 1718. Its ever-blooming qualities have made it a favourite from the cottage to the palace; and perhaps no plants have contributed so much to enliven our cottage walls as the Common China Rose (*Rosa Indica*), and the Crimson China Rose (*Rosa Semperflorens*). These roses have been and are considered distinct species by botanists. Like all other cultivated roses, they sport much from seed; but the descendants of each may generally be recognised by a close observer. The common and its varieties make strong green luxu-

riant shoots, with flowers varying in colour from pure white to deep red. The Crimson also takes a wide range; for though its original colour is crimson, yet I have reason to believe that the pure white, which was raised in Essex, came from its seed. There are but few of these roses now cultivated, owing to their want of fragrance, the Hybrid Perpetuals having superseded them; still they are beautiful roses for small beds, and we have not even now any rose more beautiful than Cramoisie Supérieure; its flowers are so finely formed, and its crimson tints so rich. Another member of this semperflorens group is Eugène Beauharnais; its colour amaranth, and its flowers large and double. Fabvier, with semi-double scarlet flowers, exhausts our catalogue of the most worthy of these crimson semperflorens roses. Clara Sylvain and Madame Bureau are two pure pearly-white roses, which form an admirable contrast to those first described.

For blush roses we have the yet unrivalled Mrs. Bosanquet. Archduke Charles and Virginie are the best of those roses that, when they open are rose-coloured, and yet, in a day or two, if the weather be warm and dry, change to dark crimson. I have seen them in France nearly black. Madame Bréon is a fine large rose, with brilliant rose-coloured flowers, well worthy of cultivation; and in these few lines, we have exhausted our China Roses, which, at one time, were our only roses that

gave flowers constantly in autumn, and were proportionately esteemed.

Culture.

In cultivating China Roses but little care is required, as most of them are quite hardy. All the varieties of *Rosa semperflorens*, are adapted for the front edges of beds or clumps, as they are of more humble growth than the varieties of the Common. It must also be recollected that the latter are those alone adapted for standards. The varieties of *Rosa semperflorens*, though they will exist for several years on the Dog Rose stock, yet do not form ornamental heads, but become stunted and diseased; on the contrary, the varieties of the China Rose, as standards, particularly on short stems two or three feet in height, form good heads swelling and uniting with the stock, and giving a mass of bloom from June to November; on tall stems I have not found them flourish equally. About the end of March, not earlier, the branches of standards will require thinning out, and shortening to about half their length; in summer, a constant removal of their faded flowers is necessary, and this is all the pruning they require.

China Roses are better adapted than almost any other class for forming groups of separate colours. Thus for beds of white roses, which, let it be

remembered, will bloom constantly from June till October, Clara Sylvain and Madame Bureau are beautiful; the former is the taller grower, and should be planted in the centre of the bed; for crimson, take Cramoisie Supérieure—no other variety approaches this in its peculiar richness of colour; for scarlet, Fabvier; for deep crimson, Eugène Beauharnais; for blush, Mrs. Bosanquet; for a variegated group, changeable as the chameleon, take Archduke Charles and Virginie; for rose, Madame Bréon. I picture to myself the above on a well-kept lawn, their branches pegged to the ground so as to cover the entire surface, and can scarcely imagine anything more chaste and beautiful. All the varieties described in this article will be found desirable for pot-culture: they are more hardy, and bloom more abundantly in a lower temperature than the Tea-scented Roses, and are thus admirably adapted for the ‘window garden.’

Raising Varieties from Seed.

To succeed in making these roses bear and ripen their seed in this country, a warm dry soil and south wall are necessary; or, if the plants can be trained to a flued wall, success will be more certain. Eugène Beauharnais, fertilised with Fabvier, would probably produce first-rate brilliant coloured flowers. Archduke Charles, by remov-

ing a few of the small central petals just before their flowers are expanded, and fertilising it with pollen from *Fabvier*, would give seed; and as the object ought to be in this family to have large flowers with brilliant colours and plants of hardy robust habits, no better union can be formed. China Roses, if blooming in an airy greenhouse, will often produce fine seed; by fertilising their flowers it may probably be insured. In addition, therefore, to those planted against a wall, some strong plants of the above varieties should be planted in the orchard-house, the place above all others adapted for seed-bearing roses.

THE TEA-SCENTED CHINA ROSE.

(*ROSA INDICA ODORATA.*)

Rosier Thé.

THE original *Rosa odorata*, or Blush Tea-scented Rose, has long been a favourite. This pretty variation of the China Rose was imported into England from China in 1810; hence it was sent to France, where, in combination with the Yellow China or Tea Rose, it has been the fruitful parent of all the splendid varieties we now possess. Mr. Parkes introduced the yellow variety from China in 1824; and even now, though so many fine varieties have been raised, but few surpass it in

the size and beauty of its flowers, semi-double as they are: it has but a very slight tea-like scent, but its offspring have generally a delicious fragrance, which I impute to their hybridisation with *Rosa odorata*. In France the yellow Tea Rose is exceedingly popular, and in the summer and autumn months hundreds of plants are sold in the flower markets of Paris, principally worked on little stems or 'demi-tiges.' They are brought to market in pots, with their heads partially enveloped in coloured paper in such an elegant and effective mode that it is scarcely possible to avoid being tempted to give two or three francs for such a pretty object. In the fine climate of Italy, Tea-scented Roses bloom in great perfection during the autumn: our late autumnal months are often too moist and stormy for them; but in August they generally flower in England very beautifully. I was much impressed in the autumn of 1835 with the effects of climate on these roses; for in a small enclosed garden at Versailles, I saw, in September, hundreds of plants of yellow Tea-Roses covered with ripe seed and flowers. The French cultivators say that it very rarely produces a variety worth notice. The culture of Tea-scented Roses is worthy of more attention than it receives, for surely no class more deserves it. In calm weather, in early autumn their large and fragrant flowers are quite unique, and add much to the variety and beauty of the autumnal rose garden.

In describing a few select varieties of this class, our first group shall comprise those with rose-coloured flowers; and two more beautiful roses cannot be imagined than Adam and Souvenir d'un Ami. How large, how finely shaped and fragrant are their flowers! Two very old friends in this range of colour deserve also a good word: Goubault for its exquisite fragrance, and Princesse Marie for greenhouse culture only, as its magnificent flowers seldom or never open in the open air. Many so-called yellow roses are in this group; but very few, however, deserve the appellation. Vicomtesse de Cazes and Elise Sauvage are well-known roses, and really are not yet surpassed; the latter has, apparently, of late years become very delicate in its habit: this is to be regretted, for it is one of the most beautiful of roses. Canary, a new semi-double rose from Lyons; in bud it is of the most brilliant yellow, and quite charming, but it must always be gathered when in bud.

Moiré and Barbot, two pale flesh-coloured roses, tinted with fawn, are very double and fine; the former is one of the largest roses of this class. Devoniensis, the only Tea-scented Rose ever raised in England, is still unrivalled: its creamy white flowers, with their delicate rose tint, are always beautiful. Among these almost white roses Madame Willermoz is very fine; its flowers are slightly tinted in the centre with salmon;

it is one of the most robust and hardy of Tea Roses. Julie Mansais and Niphetos are two pure white roses of first-rate excellence. Louise de Savoie, a large and fine rose, and Narcisse, the latter an improvement on Pactolus, are beautiful pale yellow roses. So far we have gone through the shades of colour in this class, leaving only that remarkable class of which Safrano is the type: the buds of this rose, as is well known, are of a deep fawn before expansion, and *then* very beautiful; but they soon fade on opening, and lose all their beauty. In this class of roses a new variety, exhibited in 1853, in Paris, raised at Dijon, and called Gloire de Dijon, is a great acquisition; its flowers are as large and as durable as those of the Bourbon Souvenir de la Malmaison, which they much resemble in shape; but their colour, nearly as deep as the buds of Safrano, is most striking; its foliage is as thick and large, and its habits as robust as those of the above well-known Bourbon Rose, and as it opens freely in our climate it is highly popular.* Another fawn-coloured rose raised at Lyons, which is new, also deserves attention; it is called Auguste Vacher; its flowers are not so large as those of Gloire de Dijon, but double and of a deeper, brighter fawn-colour something like Noisette Ophirie; its habit is most vigorous and robust. Madame William, a rose

* I have very recently learned that it succeeds perfectly in the north, and that near Aberdeen it has bloomed beautifully.

like that fine old rose *Elise Sauvage*, but hardier, is a kind quite worthy of culture.

Madame de St. Joseph, pale salmon tinted with pink, is nearly unique in colour; but its flowers are often very irregular in their shape. *Souvenir d'Elise Vardon* is a new creamy white rose, tinted with rose, and a distinct variety always beautiful.

But very few distinct roses of this class have been recently introduced, although many *new* varieties have. *Duc de Magenta*, and the *President* are, however, good kinds, with very large rose-coloured flowers, tinted with fawn. The new yellow *Tea Rose*, the *Golden Ball (La Boule d'Or)*, scarcely deserves its name, for its buds are pointed, and its flowers, when open, flat; in colour it is of a bright yellow, and, till we have a yellow rose in shape like *Gloire de Dijon*, it will be cultivated. *Gloire de Bordeaux* is a new variety with the vigorous habit of the *Bourbon Sir Joseph Paxton*, to which it bears some resemblance; its large, coarse rose-coloured flowers are however very fragrant, and the variety is well calculated for training to walls. *Madame Falcot*, like *Safrano*, but deeper in its beautiful fawn-colour, and giving flowers more double, is a charming variety. *Comtesse Ouvaroff* and *Triomphe de Guillot*, the former rose-coloured, the latter pale flesh, nearly white, shaded with rose and salmon is a fine and distinct rose, remarkably fragrant.

Culture.

As these interesting roses require more care in their culture in the open air than any yet described, I will endeavour to give the most explicit directions I am able, so as to insure at least a chance of success. One most essential rule must be observed in all moist soils and situations: *when grown on their own roots in moist soils they must have a raised border in some warm and sheltered place.* This may be made with flints or pieces of rock in the shape of a detached rock border, or a four-inch cemented brick wall, one foot or eighteen inches high, may be built on the southern front of a wall, thick hedge, or wooden fence, at a distance so as to allow the border to be two feet wide: the earth of this border must be removed to eighteen inches in depth, nine inches filled up with pieces of bricks, tiles, stones, or lime rubbish: on this, place a layer of compost, half loam or garden mould, and half rotten dung, well mixed, to which add some river or white pit sand: this layer of mould ought to be a foot thick or more, so as to allow for its settling: the plants may be planted about two feet apart. In severe frosty weather, in the dead of winter (you need not begin till December), protect them with green furze or whin branches, or any kind of light spray that will admit the air and yet keep off the violence of severe frost. I

have found the branches of furze the best of all protectors. With this treatment they will seldom receive any injury from our severest winters, and they will bloom in great perfection all summer. This is the culture they require if grown as low dwarfs on their own roots: but perhaps the most eligible mode for the amateur is, to grow them budded or grafted on low stems or dwarf standards of the Dog Rose; they may be then arranged in the beds of any flower garden, and graduate in height so as to form a bank of foliage and flowers; they *must*, however, have protection, whether grown as standards, or dwarf standards, or dwarfs; this may be done very effectually by placing over each bed flexible rods, their lower ends stuck into the earth and their tops tied in the centre so as to form an arch, the centre about three feet in height; this should be covered with tiffany about the middle of November, which may remain till the end of April. Before the tiffany is placed over the bed, it will be good practice to cover its surface with leaves or moss to about two inches in depth, this will keep the soil from being frozen. By this simple method Tea-scented Roses may be grown in beds on their own roots, or as low-budded plants, in exposed situations unfavourable to their culture in the open air, when unprotected.

Another method is to remove them in December, and lay their roots in the ground near a north wall or fence, their heads resting against

the wall ; over these a mat should be nailed during frost. For forcing or blooming early in spring in the greenhouse, they form beautiful plants, budded on neat stems about one foot in height : these, if potted in November, give abundance of flowers in spring, of a larger size than when grown on their own roots. Other modes of protection of standards and dwarf standards are, either to remove them to some warm shed in November, and lay their roots in damp mould, or to reduce their heads and give each plant an oiled paper cap. This is a mode practised in the north of Italy with great success, to protect their tender roses and other plants ; and though paper caps may not be thought objects of ornament on an English lawn, yet the method will be found very eligible in many cases. In March, those that have been laid in the shed for protection may be removed to the flower borders, pruning off all superfluous and dead shoots ; they will bloom the following summer in great perfection, and in general surpass those that have been suffered to remain in the ground without protection. Some of the varieties are much more robust and vigorous than others, and equally beautiful as those of more delicate habits : it will therefore be scarcely worth while to grow any but what are of known hardihood and vigour. I have pointed out some of these in my notice ; but time can only make a knowledge of their habits more perfect. Budded plants of

Tea-scented Roses force very well; they do not require to be established one year in pots, for if only potted in October or November, and forced with a gentle heat in January and February, they will bloom finely in March and April. The extreme beauty of their foliage and flowers will amply repay the attention given to them, as they have a peculiar softness and delicacy of appearance when forced and growing luxuriantly.

Tea Roses on stems, one to two feet in height, are most desirable and beautiful plants: these may be safely protected by placing to each plant three stakes triangularly, sticking them firmly in the ground, and over these stretch a piece of tiffany. This should be tacked to the stakes with small tacks, and brought down within two inches of the ground, and will keep the plant in perfect health during the winter. By the end of April, these protectors may be removed, and the plant pruned: this method will supersede the paper cap, which is so liable to be destroyed by the wind. Standards of these roses succeed well against a south or south-east wall: their stems should not be more than three feet high.

To protect the dormant buds of Tea-scented Roses the first winter after budding, the following new idea may be practised. They should be painted over with collodion three or four or more times till a tolerably thick coat is formed. This will protect the buds of tender roses from the

effects of frost in winter and spring, and need not be removed, as they will break through it in the growing season without any difficulty.

To have a fine bloom of these Roses, or, indeed, of any of the Hybrid Perpetuals, Bourbons, or China Roses, in pots towards the end of summer or autumn, take plants from small pots (those struck from cuttings in March or April will do), and put them into six-inch, or even eight-inch pots, using a compost of light turfy loam and rotten manure, equal parts: to a bushel of the compost, add half a peck of pounded charcoal, and the same quantity of silver-sand; make a hotbed of sufficient strength,—say three to four feet in height, of seasoned dung, so that it is not of a burning heat, in a sunny exposed situation, and on this place the pots; then fill up all interstices with sawdust, placing it so as to cover the rims, and to lie on the surface of the mould in the pots about two inches deep. The pots should have a good sound watering before they are thus plunged, and have water daily in dry weather; the bottom heat and full exposure to the sun and air will give the plants a vigour almost beyond belief; this very simple mode of culture is as yet almost unknown. I have circulated among a few friends the above directions; and have no doubt that, in the hands of skilful gardeners, some extraordinary results may be looked for in the production of specimens of soft-wooded plants. I may add

that, when the heat of the bed declines towards the middle of July, the pots must be removed, some fresh dung added, and the bed re-made, again plunging the plants immediately. Towards the end of August the roots of the plants must be ripened; the pots must, therefore, be gradually lifted out of the saw-dust; i. e. for five or six days expose them about two inches below their rims; then, after the same lapse of time, a little lower, till the whole of the pot is exposed to the sun and air; they may be then removed to the greenhouse so as to be sheltered from heavy rain. They will bloom well in the autumn, and be in fine order for early forcing; if plants are required during the summer for exhibition, or any other purpose, care must always be taken to harden or ripen their roots as above before they are removed from the hot-bed.

A very excellent method of cultivating these beautiful roses is to plant against a wall with a warm aspect, some vigorous-growing climbing roses, and when they are well established, budding their branches with the finer varieties; they then bloom in the highest perfection. One of the best to form a stock for this purpose is the Banksian Rose, *Rosa Fortuniana*. The black Boursault introduced by Mr. H. Curtis, and so called from the dark colour of its shoots, is also an excellent sort for this purpose.

Félicité Perpétuée the well-known variety of

Rosa sempervirens may also be employed. These vigorous-growing roses impart their nature to the sorts budded on them, and the effect is admirable.

There is perhaps no situation in this country in which these charming roses bloom in such high perfection as when planted in the borders of an orchard-house.

A Tea-scented Rose-House.

A house for those beautiful roses, to be enjoyable, should be span-roofed—glazed with large squares of glass, the rafters light, and the roof fixed. Its dimensions should be as follows—width, 14 feet; height of sides, from 5 to 6 feet; height to ridge, from 9 to 10 feet; it should be ventilated at each side by shutters on hinges; or sashes 18 inches wide; no roof ventilation is necessary. A nicely gravelled path, 4 feet wide, should occupy the centre, and a border made on each side 5 feet wide. Each border will hold three rows of rose trees, which should be planted so as to form two banks of roses in this manner: the back row should be of low standards, 3 feet in height; the middle row, standards 2 feet 6 inches high; and the row next the path, dwarf standards 2 feet high. When the trees are in full foliage and flower, a perfect bank of beauty is formed; for, owing to the favourable climate, the trees grow with a vigour scarcely conceivable. Previous to planting, the borders should have a dressing of manure 6 inches thick,

which should be well mixed with the soil to a depth of 2 feet. I have been induced to suggest this mode of culture for Tea-scented Roses, owing to my having planted, in December 1862, a border in one of my span-roofed orchard houses with low standards of the most choice varieties of this beautiful group. I have never, in the whole course of my experience, seen anything in rose culture so beautiful and so gratifying: for during the whole of this month (May 1863) not only their flowers but their large beautiful leaves, unscathed by frost, wind or rain, have been a source of untiring gratification. No artificial heat is employed, so that the air is always pure and most agreeable. In a house of this description, Tea-scented Roses will bloom beautifully from May till November; but in spring and autumn—say in May and part of June, and again in September and October—they will be in the greatest perfection. In June, July, and August, the ventilations should be open night and day in calm weather, and closed only to exclude violent wind.

Raising Varieties from Seed.

With attention, some very beautiful roses of this family may be originated from seed; but the plants must be trained against a south wall, in a warm, dry soil, or grown in pots, under glass: a warm greenhouse, or the orchard house, will be

most proper for them, so that they bloom in May, as their hips are a long time ripening.

For yellow roses, Vicomtesse de lazes may be planted with and fertilised by Canary, which abounds in pollen; some fine roses, almost to a certainty must be raised from seed produced by such a union: for the sake of curiosity, a few flowers of the latter might be fertilised with the Double Yellow Briar, or *Rosa Harrisonii*. The Old Yellow Tea Rose bears seed abundantly; but it has been found, from repeated experiments, that a good or even a mediocre rose is seldom or never produced from it; but fertilised with the Yellow Briar, something original may be realised. *Souvenir d'un Ami* and *Adam* would produce seed of fine quality, from which large and bright rose-coloured varieties might be expected. *Niphetos* would give pure white Tea Roses; and *Gloire de Dijon* fertilised with *Safrano* would probably originate first-rate fawn-coloured roses; but the central petals of the latter should be carefully removed with tweezers or pliers, as its flowers are too double for it to be a certain seed-bearer.

THE MINIATURE ROSE.

(*ROSA LAWRENCEANA.*)

IN the botanical catalogues this curious little rose is said to have been introduced from China in

1810, and botanists have made it a species; but, like the Rose de Meaux and Pompon Roses, which are dwarf *varieties* of *Rosa centifolia*, this is undoubtedly nothing but a dwarf seminal *variety* of the Common China Rose. Many plants that have been long under cultivation have a tendency to produce from seed these pigmy likenesses of themselves: among these little 'faerie queens,' Gloire des Lawrenceanas is one of the prettiest of the tribe; its flowers are of a dark crimson, and larger than those of any other variety. La Desirée and Pompon Bijou are both of them bright coloured and pretty roses. Pallida is the only variety in this division approaching to white. Its flowers, when they first open, are nearly of pure white, but they soon change to a pale flesh-colour; this is rather a delicate rose, seeming very impatient of cold and damp.

These roses are all very impatient of moisture, and in all moist soils require a very dry, warm, raised border. I have not yet had an opportunity of seeing them grow in dry soils; but I think it probable that the light sandy soils of Surrey would suit them admirably. In cold situations it will be advisable to grow them constantly in pots, protecting them in a cold pit or frame till January, and then, if required to bloom early, remove them to a warm situation in the greenhouse, or force them with the Tea-scented Roses. A collection of these little rose-bushes, covered with their

bright flowers in March and April, will be found one of the most eligible and unique ornaments for the drawing-room.

THE NOISETTE ROSE.

(ROSA NOISETTIANA.)

Rosier Noisette.

THE original of this remarkable group, the 'Blush Noisette' Rose, was raised from seed in America by Monsieur Philippe Noisette, and sent by him to his brother, Monsieur Louis Noisette, the well-known nurseryman at Paris, in the year 1817. Perhaps no new rose was ever so much admired as this. When first introduced its habit was so peculiar, and so unlike any other known variety, that the Parisian amateurs were quite enraptured with it. It was produced from the seed of the old Musk Rose (*Rosa moschata*), the flowers of which had been fertilised with the Common China Rose.

The perfume of the Musk Rose is very apparent: its tendency to bloom in large clusters also shows its affinity to that old and very remarkable rose; but since its introduction to France so many seedlings have been raised from it, and so many of these are evidently hybrids of the Tea-scented and other roses, that some of the roses called

'Noisettes' have almost lost the characters of the group; for in proportion as the size of the flowers has been increased by hybridising, their clustering tendency, and the number of them in one corymb, has been diminished.

Since the introduction of so many beautiful autumnal roses of other families, Noisette Roses have declined in favour; there are, however, still a few distinct and pretty varieties quite worthy of being retained in the rose-garden. The two pretty white roses, Aimée Vibert and Miss Glegg, the latter *slightly* tinted with rose, are among them; they are both dwarf and compact in their habits, and form pretty bushes. Jeanne d'Arc, a pure white rose of a vigorous habit, and a nice pillar rose, is also worthy of culture.

Fellenberg and Octavie are two pretty crimson roses, and Vicomtesse d'Avesne is a very neat rose-coloured rose, blooming most abundantly. Caroline Marniesse is a creamy white, and also a most abundant bloomer.

We now come to a distinct group of this family, which may be called Tea-scented Noisettes, as they partake so largely of the habit, and have the fragrance of the Tea Rose. The oldest one in this group is Jaune (Desprez), or Noisette Desprez, raised by Monsieur Desprez. It was at one time highly esteemed, and even now its fawn-coloured and very fragrant flowers are often, in autumn, very beautiful. It forms a fine standard. La-

marque, with its pale, straw-coloured flowers, and Phaloé, with pale, flesh-coloured, fawn-tinted flowers, are of this race, and two fine roses. To the former we owe that most glorious of all yellow roses (when in perfection), the Cloth of Gold, or Chromatella. Even at this distance of time I have not forgotten the delight I felt on seeing this rose in full bloom at Angers in 1843. Its flowers were like large golden bells. The tree was a standard trained to a wall, and each flower was pendulous so that their bright yellow centres were most conspicuous. Although twenty years have since elapsed, no yellow rose has approached in beauty this grand and remarkable variety. It is true we have had new yellow Noisette Roses in abundance, all of which were to outshine my old favourite; but they have all sunk into mediocrity, and we have yet to gain a rose from seed equal to the Cloth of Gold in form and colour, and as hardy and free blooming as Gloire de Dijon. With Chromatella I introduced in 1843 Solfaterre, a rose of the same parentage, and almost its equal in beauty; it is, however, more free in giving its flowers. Augusta, an American rose, is so much like Solfaterre as not to be distinguished from it by any ordinary observer. Ophirie is a bright fawn, or perhaps copper-coloured rose, tinted with salmon sometimes, in autumn very pretty. A new rose of this class of colour, Marie Chargé, more yellow in its tint than Ophirie, and shaded

with carmine, promises to be a most interesting acquisition.

Very recently some acquisitions have been made to this group; one of the most so is Isabella Gray, raised from seed of the Cloth of Gold Rose, by Mr. Gray, a florist, at Charleston, South Carolina. This is of a most beautiful bright yellow, quite as bright as the interior of the flowers of the Cloth of Gold; its buds are, however, so hard that they open very rarely. It should be planted against a wall with a warm aspect. Celine Forestier is also a bright yellow Noisette Rose quite worthy of culture. Another yellow Noisette Rose, Triomphe de Rennes, will also be found very interesting. This was raised at Rennes from Noisette Lamarque, and seems to be crossed with the Bourbon Rose, Madame Angelina; its flowers are yellow, tinted with fawn and rose; it is not a vigorous grower, but it blooms freely. Madame Schulz is another new yellow rose of this class; it is the most vigorous grower of all, but appears to be very chary in giving its flowers, requiring the treatment recommended for the Cloth of Gold Rose given under 'Culture.' Madame Massot is a new large-flowered white Noisette Rose, tinted slightly with rose; it partakes of the Bourbon Rose habit, and is a robust grower and free bloomer. And very recently, a new rose of this class has been introduced from America, named America; it is a most vigorous grower, and its

flowers are much like those of Gloire de Dijon both in colour and shape, only not so beautiful. The plant has also the same robust vigorous habit.

Culture.

The dwarf kinds of Noisettes, such as Aimée Vibert, Fellenberg, &c., make pretty bushes for beds. The Tea-scented Noisettes are only adapted for walls and for pillars in warm situations in the south of England, requiring even then the protection recommended for pillar roses, p. 114. A well-grown pillar of such a rose as Cloth of Gold would have a fine effect. This rose requires some peculiarities in its treatment, for it is in our cool climate a shy bloomer.* It should be planted against a wall with a warm aspect, the soil well manured and stirred twenty inches deep, and its long robust shoots, which it always makes, not shortened, but trained to their full length, if in a serpentine manner so much the better; the second year these shoots will give grand trusses of bloom from all the buds in the upper part of the shoot. As soon as the blooms are past, cut out the shoots close to the ground and encourage

* A very nice method of cultivating this rose is to plant a Banksian Rose against a wall (Fortuniana is the best variety), and after it has made sufficient growth bud it with it. This stock also suits well the other yellow Noisettes, and all the Tea-scented Roses.

the growth of others during the summer to bloom the following season. When the tree is very vigorous one or two of the shoots that have bloomed the preceding summer may be left, the blooming spikes shortened, and they will sometimes give autumnal flowers. This treatment may be applied to Madame Schulz and Isabella Gray, if they prove to be shy bloomers. The Cloth of Gold Rose flourishes remarkably well in Jersey, where I have heard of some very fine trees. As standards, Noisette Roses require but little culture; the principal care is to be prompt in cutting off the decayed and decaying clusters of flowers during the blooming season; and, in March, to thin out their superfluous branches. The Tea-scented Noisettes are, however, too tender for this culture, unless in warm situations. In a garden at Upper Clapton, near London, is a standard Noisette Desprez, about fifteen years old. It is a magnificent tree. For ornamenting wire fences, the Dwarf Noisette Roses are nicely adapted, as they can be trained with great facility, and they will form, in such situations, a blooming boundary for at least four months in the year.

Raising Varieties from Seed.

But few of the Noisette Roses will bear seed in this country; the following, however, if planted against a south wall, and carefully fertilised, would

probably produce some interesting varieties. The object should be to obtain dark crimson varieties with large flowers, and for this purpose Fellenberg should be fertilised with Gloire de Rosomène. Solfaterre with the Tea Rose, Vicomtesse de Cazes, would probably give yellow varieties, and these would be large and fragrant, as in Lamarque and Jaune Desprez. In these directions for procuring seed from roses by fertilising, I have confined myself to such varieties as are almost sure to produce it; but much must be left to the amateur, as many roses may be made fertile by removing their central petals, and, consequently, some varieties that I have not noticed may be made productive.

THE MUSK ROSE.

(ROSA MOSCHATA.)

Rosier Muscate.

THE White Musk Rose is one of the oldest inhabitants of our gardens, and probably more widely spread over the face of the earth than any other rose. It is generally supposed that the attar of roses is prepared in India from this species, and that this is also the rose of the Persian poets,*

* The following anecdote is narrated by the late Sir John Malcolm in his sketches of Persia. I have, moreover, heard it

in the fragrant groves of which they love to describe their 'bulbul,' or nightingale, as enchanting them with its tuneful notes. The probability that this is the famed rose of Persia is strengthened by the fact that it is much more fragrant in the evening, or in the cool weather of autumn, than at any other time or season, and probably in the hot climate of Persia, *only so* in the coolness of night, when nightingales delight to sing. A recent traveller also remarks that the roses of Persia are remarkably small and fragrant. There are, doubtless, many seminal varieties of the species; their flowers differing in colour, but possessing the leading features of the original. Olivier, who travelled in the first six years of the French republic, mentions a rose tree at Ispahan, called the 'Chinese Rose Tree,' fifteen feet high, formed by the union of several stems, each four or five inches in diameter. Seeds from this tree were sent to Paris, and produced the common Musk Rose. It seems therefore possible and probable, that this has been the parent of nearly all

from his own lips, told in his peculiar spirited manner while he resided here. 'A breakfast was given to us at a beautiful spot near the Hazâr Bâgh, or thousand gardens, in the vicinity of Shiraz; and we were surprised and delighted to find that we were to enjoy this meal on a stack of roses. On this a carpet was laid, and we sat cross-legged like the natives. The stack, which was as large as a common one of hay in England, had been formed without much trouble from the heaps of rose leaves, collected before they were sent into the city to be distilled.'

their garden roses; for, like most orientals, their habits are not, and have not been, enterprising enough to stimulate them to import roses from distant countries. Large and very old plants of the Musk Rose may sometimes be seen in the gardens of old English country houses.

Eponine is a pure white, and very double variety, one of the prettiest of the group. Princesse de Nassau is a distinct and good variety, very fragrant, and blooming in large clusters; the flower-buds, before they open, are nearly yellow, changing to cream-colour as they expand. The *Ranunculus*, or new White Musk, is merely an improved variety of the old or original Musk Rose, with flowers more double.

Rivers's Musk, raised here from Italian seed, is a pretty, free-blooming rose, with flowers of a rosy buff, and very fragrant.

Moschata Nivea, or the 'Snow Bush,' and one or two other roses from Nepaul, have the scent peculiar to this group; but as they bloom but once in the summer, and differ totally, in some other respects, from the true *Rosa Moschata*, I have not included them. For the culture of the roses of this division, that recommended for Noisette Roses, in beds and as standards, may be adopted, as their habits are very similar.

THE MACARTNEY ROSE.

(ROSA BRACTEATA.)

THE single Macartney Rose was brought from China, in 1795, by Lord Macartney, on his return from his embassy to that country. It now forms the original of a pretty family; but as it does not bear seed freely, even in France, fine varieties, as yet, are not abundant; its strictly evergreen and shining foliage is a beautiful feature; and I hope ere long to see numerous varieties, with double flowers of the same brilliant hues as our other fine roses possess. Time will prove; but I think it is not too much to anticipate that, ultimately, we shall not be satisfied unless *all* our roses, even the Moss Roses, have evergreen foliage, brilliant and fragrant flowers, and the habit of blooming from June till November. This seems to be an extravagant anticipation; but perseverance in gardening will yet achieve wonders. The Double (the old variety) was the first double Macartney Rose raised from seed: it is mentioned here to caution any one from planting it, as it is totally worthless, its flowers constantly dropping off without opening. Maria Leonida is now an established favourite: its fine bell-shaped flowers of the purest white, sometimes slightly tinged with pink towards their centre, and its bright red anthers peeping from among its central petals,

give it an elegant and pleasing character. *Rosa Hardii*, or *Rosa berberifolia Hardii*, is a most interesting rose, raised from seed by Monsieur Hardy, of the Luxembourg Gardens, from *Rosa involucrata*, a variety of *Rosa bracteata*, fertilised with that unique rose, *Rosa berberifolia*, or the Single Yellow Persian Rose. This curious hybrid, like its Persian parent, has single yellow flowers with a dark eye (much like *Cistus formosus*), and evergreen foliage; it is not quite hardy. It will probably be the parent of an entirely new group; and what can be imagined more interesting in roses than varieties with double yellow flowers and evergreen leaves!

Culture.

Macartney Roses sometimes suffer when exposed to severe frost in the open borders of the flower-garden: they will therefore require the same protection as recommended for the Noisette Roses in cold situations. *Maria Leonida* is a fine border rose; for, by pegging down its shoots as they are produced in summer, a few plants soon cover a bed or clump with a dense mass of foliage and flowers, ornamenting the flower-garden from three to four months in summer and autumn.

Raising Varieties from Seed.

It requires the burning sun of Italy to make these roses produce their seed; yet, by persever-

ance and careful cultivation, this desirable end may be obtained. To raise a double variety of *Rosa Hardii* is, at any rate, worth attempting. A flued wall must be used to train the plants to; and in small gardens, where there is not such a convenience, a hollow wall might be built about four or five feet in height and ten or twelve feet long, of two courses of four-inch brickwork, with a space between, into one end of which an Arnott's stove might be introduced, and a pipe carried in a straight line through to the opposite end (each end must of course be built up to keep in the hot air); this pipe would heat the air between the two courses of brickwork sufficiently for the purpose. A fire should be kept every night from the middle of May to the middle of July; and this treatment would possibly induce some of these roses to give their seed. *Rosa Hardii* would bloom freely if trained to a hot wall; and, if fertilised with the Double Yellow Briar, seed may perhaps be obtained. *Maria Leonida*, planted in an orchard house, and fertilised with the Tuscany Rose, might also give some curious hybrids. This is all speculative; but such speculations are, unlike many others, exceedingly innocent and interesting.

ROSA MICROPHYLLA.

(THE SMALL-LEAVED ROSE.)

ROSA MICROPHYLLA RUBRA, from which we have derived all our varieties of this pretty family, was introduced from the East in 1823. It is nearly allied to the Macartney, and is most probably a Chinese hybrid of that rose. The original imported plant bearing double flowers makes it appear more probable that it is a mere garden variety. I have received seed from Italy of this rose, and find that plants from it, to use a florist's term, sport amazingly, no two appearing alike.

Several varieties were formerly cultivated, but having no fragrance and but little beauty, they have gone out of cultivation. The original sort is by far the prettiest, as its prickly calyx is very remarkable.

Culture.

This rose is not hardy enough to bear exposure in wet and cold soils; it will perhaps grow for a time, but seldom bloom well. A warm and dry elevated border or a south wall will suit it admirably: but to see this very curious rose bloom in perfection, bud it on short stems of the Dog Rose, and treat it exactly as recommended for the Tea-scented Roses; it will then bloom freely, either in pots or in the flower-borders, and form delightful little plants, quite unique in their character and appearance.

PART III.

GENERAL CULTURE AND PROPAGATION
OF ROSES.

TREATMENT OF THE SEED, SOWING, &c.

THE HIPS of all the varieties of roses will in general be fully ripe by the beginning of November; they should then be gathered and kept entire, in a flower-pot filled with dry sand, carefully guarded from mice; in February, or by the first week in March, they must be broken to pieces with the fingers, and sown in flower-pots, such as are generally used for sowing seeds in, called 'seed-pans,' but for rose seeds they should not be too shallow; nine inches in depth will be enough; these should be nearly, but not quite, filled with a rich compost of rotten manure and sandy loam or peat; the seeds may be covered, to the depth of about half an inch, with the same compost; a piece of kiln wire must then be placed over the pot, fitting closely at the rim, so as to prevent the ingress of mice, which are passionately

fond of rose seeds; there must be space enough between the wire and the mould for the young plants to come up; half an inch will probably be found enough; the pots of seed must never be placed under glass, but kept constantly in the open air, in a full sunny exposure, as the wire will shade the mould, and prevent its drying. Water should be given occasionally in dry weather; the young plants will perhaps make their appearance in April or May, but very often the seed will not vegetate till the second spring. When they have made their 'rough leaves,' that is, when they have three or four leaves, exclusive of their seed leaves, they must be carefully raised with the point of a narrow pruning-knife, potted into small pots, and placed in the shade: if the weather be very hot and dry, they may be covered with a hand-glass for a few days. They may remain in those pots a month, and then be planted out into a rich border; by the end of August those that are robust growers will have made shoots long enough to take buds from. Those that have done so may be cut down, and one or two strong stocks budded with each; these will, the following summer, make vigorous shoots, and the summer following, if left unpruned, to a certainty they will produce flowers. This is the only method to insure seedling roses flowering the third year: many will do so that are not budded; but very often the superior varieties are

shy bloomers on their own roots, till age and careful culture give them strength.

It may be mentioned here, as treatment applicable to all seed-bearing roses, that when it is desirable the qualities of a favourite rose should preponderate, the petals of the flower to be fertilised must be opened gently with the fingers;*

* It requires some watchfulness to do this at the proper time: if too soon, the petals will be injured in forcing them open: and in hot weather in July, if delayed only an hour or two, the anthers will be found to have shed their pollen. To ascertain precisely when the pollen is in a fit state for transmission, a few of the anthers should be gently pressed with the finger and thumb; if the yellow dust adheres to them the operation may be performed; it requires close examination and some practice to know when the flower to be operated upon is in a fit state to receive the pollen; as a general rule, the flowers ought to be in the same state of expansion, or, in other words, about the same age. It is only in cases where it is wished for the qualities of a particular rose to predominate that the removal of the anthers of the rose to be fertilised is necessary: thus, if a yellow climbing rose is desired by the union of the Yellow Briar with the Ayrshire, *every anther* should be removed from the latter, so that it is fertilised solely with the pollen of the former. In some cases, where it is desirable to have the qualities of both parents in an equal degree, the removal of the anthers need not take place; thus, I have found by removing them from the Luxembourg Moss, and fertilising that rose with a dark variety of *Rosa Gallica*, that the features of the Moss Rose are totally lost in its offspring, and they become nearly pure varieties of *Rosa Gallica*; but if the anthers of the Moss Rose are left untouched, and it is fertilised with *Rosa Gallica*, interesting hybrids are the result, more or less mossy; this seems to make superfetation very probable; yet Dr. Lindley, in 'Theory of Horticulture,' page 332, 'thinks it is not very likely to occur.'

a flower that would expand in the morning should be opened the afternoon or evening previous, and the anthers all removed with a pair of pointed scissors; the following morning when this flower is fully expanded it must be fertilised with a flower of some variety, of which it is desired to have seedlings partaking largely of its qualities. To exemplify this we will suppose that a climbing Moss Rose with red or crimson flowers is wished for: the flowers of the Blush Ayrshire, which bears seed abundantly, may be selected, and before expansion the anthers removed; the following morning, or as soon after the operation as these flowers open, they should be fertilised with those of the Luxembourg Moss; if the operation succeed, seed will be procured, from which the probability is that a climbing rose will be produced with the habit and flowers of the Moss Rose, or at least an approximation to them; and as these hybrids often bear seed freely, by repeating the process with them, the at-present apparent remote chance of getting a climbing Moss Rose may be brought very near.

I mention the union of the Moss and Ayrshire Roses by way of illustration, and merely to point out to the amateur how extensive and how interesting a field of operations is open in this way. I ought to give a fact that has occurred in my own experience, which will tell better with the sceptical than a thousand anticipations. About

four years since, in a pan of seedling Moss Roses, was one with a most peculiar habit, even when very young; this has since proved a hybrid rose, partaking much more of the Scotch Rose than of any other, and till the plant arrived at full growth I thought it a Scotch Rose, the seed of which had by accident been mixed with that of the Moss Rose, although I had taken extreme care: to my surprise it has since proved a perfect hybrid, having the sepals and the fruit of the Provence Rose, with the spiny and dwarf habit of the Scotch Rose; it bears abundance of hips, which are all abortive.* The difference in the fruit of the Moss and Provence Roses and that of the Scotch is very remarkable, and this it was which drew my particular attention to the plant in question; it was raised from the same seed, and in the same seed-pan, as the Single Crimson Moss Rose: as this strange hybrid came from a Moss Rose accidentally fertilised, we may expect that art will do much more for us.

The following extract from the 'Botanical Register' for January 1840 will, I think, go to prove that these expectations are not without foundation:—

‘My principal reason for publishing a figure

* It is more than probable that if the flowers of this rose were fertilised with those of the single Moss Rose, they would produce seed from which some curious hybrid Moss Roses might be expected.

of this very remarkable plant, *Fuchsia Standishii*, is because it is a mule between *Fuchsia fulgens* and *Fuchsia globosa*, two plants as dissimilar as possible in the same genus. The former, indeed, figured in this work for the year 1838, tab. 1, differs in so many respects from the common species of the genus, especially in having an herbaceous stem and tuberous roots, that it has been supposed impossible that it should be a *Fuchsia* at all. It now, however, appears, from the fact of its crossing freely with the common *Fuchsias*, that it produces hybrids, and really does belong to the genus. These hybrids are completely intermediate between the two parents: in this case having the leaves, flowers, and habit of their mother, *Fuchsia globosa*, with the hairiness and tenderness of foliage of their father, some of his colouring, and much of his herbaceous character. It is by no means necessary to take *Fuchsia globosa* for the female parent, as *Fuchsia fulgens* is found to intermix readily with many other species. That which is now figured is the handsomest I have seen. It was raised by Mr. John Standish, nurseryman, Bagshot, who sent me specimens last July, together with flowers of several others of inferior appearance. He tells me that it is an exceedingly free bloomer, with a stiff erect habit; and I can state, from my personal knowledge, that the plant is very handsome.'

Now this is from Dr. Lindley, who may be

quoted as a weighty authority; and this plant is a hybrid between two, one of which, I believe, it was seriously contemplated to place out of the genus *Fuchsia*, so dissimilar did it appear to any known species of that genus. After this we may hope for a Mossy Bourbon Rose, and a Yellow Ayrshire.

PROPAGATION OF SUMMER ROSES.

THERE are four modes of propagation applicable to Summer Roses, viz. by layers, by cuttings, by budding, and by grafting. Layering may be performed in spring, summer, and autumn: the two latter seasons only can be recommended; but if any are forgotten or omitted by accident, the operation in spring will often give success; still, as summer layering is the most legitimate, I shall give directions for that my first notice.

About the middle of July, in most seasons, the shoots will be found about eighteen inches or two feet in length; from these, two thirds of their length, the leaves should be cut off, close to the shoot, beginning at the base, with a very sharp knife; the shoot must then be brought to the ground, so as to be able to judge in what place the hole must be made to receive it; this may be made large enough to hold a quarter of a peck of compost: in heavy and retentive soils this should

be rotten dung and pit sand in equal quantities, well mixed; the shoot must then be 'tongued,' i. e. the knife introduced just below a bud, and brought upwards, so as to cut about half way through; this must be done at the side or back of the shoot (not by any means at the front or in the bend), so that the tongue does not close; to make this certain a small piece of glass or thin earthenware may be introduced to keep it open. Much nicety is required to have the tongue at the upper part of the shoot, so as not to be in the part which forms the bow, as it is of consequence that it should be within two inches of the surface, so as to feel the effects of the atmospheric heat; unless this is attended to, the roots will not be emitted quickly; the tongued part must be placed in the centre of the compost, and a moderate-sized stone put on the surface of the ground to keep the layer in its place. The first week in November the layers may be taken from the parent plant, and either potted as required, or planted out where they are to remain. Those shoots not long enough in July and August may be layered in October, when the layers are taken from the stools, and, if any are forgotten, February and March will be the most favourable months for the operation; as a general rule, July is the most proper season.

PROPAGATION OF SUMMER ROSES BY CUTTINGS.

To procure early cuttings, so has to have plants ready for planting out in June, strong plants must be placed in the forcing-house in December; these will make vigorous shoots, which, when thoroughly ripe in March, should be made into cuttings about six inches in length; the leaves must be left on that part of the cutting above the surface. Supposing the cutting to contain six buds, from three of these the leaves may be removed, or, if they are very large, even four, leaving two buds with the leaves attached. The cuttings may be planted singly in small pots filled one third with small pieces of broken pots (on these must the end of the cutting rest), and the remainder with light mould, or peat and sand equal quantities; the cuttings must then be placed in a gentle hotbed and kept perfectly close; no air should be admitted, by raising the lights in the slightest degree, except for the operation of watering; they must be sprinkled with tepid water every morning and again in the afternoon, but the latter only in bright sunny weather; these operations should be performed as quickly as possible, to prevent their being exposed to the exhausting effects of the open air. They will have made roots in a fortnight or three weeks. When this is

ascertained, which can be done by gently turning out the plant, they should be placed in a cold frame and still kept close. After being a week in this situation they may be potted into large pots. This is a very interesting method of propagation, and the plants made in this manner form very pretty bushes of compact growth; it is applicable to all roses: even Moss Roses will strike root if treated as above: they require more patience, as they are longer in forming their roots than many, as are also the Provence. Care must be taken that the shoots, before being formed into cuttings, are perfectly ripe: an invariable sign of their maturity is when the terminal bud is formed at the end of the shoot: this shows that they have made their first growth; to hasten this, the plants should be placed in the most sunny situation, so as to mature their shoots as early as possible.

Cuttings of Hybrid China Roses, Hybrid Bourbons, and of all the climbing roses, may be raised with facility by planting them in a shady border in September. They may be made about ten inches in length, two thirds of which should be planted in the soil: in fact, they can scarcely be planted too deep: one, or at most two, buds above the surface will be enough; on these buds the leaves must be left untouched. These will be fit for planting out the following autumn.

PROPAGATION BY BUDDING.

THIS seems at present, owing to the strong wish manifested by the present generation to do everything quickly, to be the favourite mode of propagation. A Summer Rose from a cutting requires at least two seasons to form a blooming plant. A layer is occasionally very capricious, and very loath to make roots; indeed, of some varieties, particularly of *Rosa alba*, they will not by any means be induced to form roots when layered, and are very difficult even to be propagated by cuttings from the forcing-house; but these become perfectly docile and manageable when budded, in one season only, forming large and handsome plants. The operation of budding is easy to do, but difficult to describe. A longitudinal cut, not so deep as to cut into the wood, but merely through the bark, should be made in the clear part of the shoot, thus |; then a transverse cut, thus —, at the top of the incision: the bark on both sides this incision must be opened with the flat handle peculiar to the budding-knife, and the bud inserted. Too many words have been wasted on the proper method of cutting off buds for insertion, some recommending wood to be left, i.e. the thin layer of wood adhering to the piece of bark—technically the plate—on which the bud is situated; others lay great stress on the necessity of removing every

particle of wood. I will endeavour to simplify this matter. Take a rose shoot with its buds, cut off its leaves, leaving the footstalks about an inch in length, and then cut off a very thin slice of bark, about one inch in length, which should have the bud in the centre; this slice of bark will have, if cut thinly enough, a layer of the wood about the thickness of thin writing paper; this need not be removed, but the bud may be inserted at once by commencing at the transverse cut and thrusting it down gently. When the bud is inserted, cut off with your knife (which should be very sharp) a piece from the upper part of the plate, i.e. the piece of bark with the bud attached, so that it fits closely to the transverse cut at top; then bind it up firmly, but leave the bud peeping out, with cotton twist, such as the tallow-chandlers use for the wicks of candles; the finest quality is best: this is the most eligible binding known, and far preferable to matting or worsted. Budding may be commenced in June, and performed as late as the second week in September; if done in June, the only shoots fit to take buds from are those that have shed their flowers: on these alone the buds are mature. I have occasionally known budding to succeed in October, but after August it is at the best uncertain, as the success of the operation entirely depends upon the state of the weather. I must, however, except the Manetti stock, which may be

budded till the end of September, and even later. If the stock to be budded be in a flourishing vigorous state of growth, shoots two or even three years old are quite as eligible for budding as shoots of the current year, which are so generally recommended.

In about thirty days after budding the ligatures may be loosened, and in a week after be removed; but the former operation is scarcely necessary, for at the end of thirty days the practice is here to remove the ligatures entirely, and not a bud in twenty ever fails. In the month of November, not earlier, all the branches not budded must be cut off from the stock cleanly, with a sharp knife, and the budded shoots shortened to within two or three buds of the inserted bud; this is often done too early in autumn, or even in summer, which weakens the stock and prevents the vigorous growth of the bud the following season. The stocks will require no further care till May; and then weekly attention is necessary, for all the numerous young shoots in the stock *below* the bud must be carefully removed; but the two or three shoots above the bud must not be cut off, but suffered to grow four or five inches, and then have their tops pinched off; they will again break forth, and must again and again be pinched, till the middle of June, and then removed. This management of budded roses is applicable to standards of all heights as well as dwarfs.

PROPAGATION BY GRAFTING.

THIS may be performed in the forcing-house in January, and in the open air in February and March. There are many modes of grafting: those most eligible for roses are the common 'whip-grafting,' using clay as a covering, and 'cleft-grafting,' using wax or pitch: the former is generally the most successful; and if the stocks are potted a year before being used, strong blooming plants of the Perpetual Roses may be made in three months.

A neighbouring amateur has been very fortunate in grafting roses, merely gathering his stocks from the hedges in January and February, and immediately grafting and potting them after the operation; in doing so covering the union of the graft firmly with mould, using no clay, so as to leave only three or four buds above the surface, and placing them in a gentle hotbed, in a common garden-frame, keeping them very close. In this simple method of operating I have seen eighteen out of twenty grafts grow; but, owing to the stocks not being established in pots a year, as they ought to have been, these plants have not made strong and luxuriant shoots the first season. Stocks may be potted in October, if none can be had established in pots: these may be used in January or February with much success.

In whip-grafting of roses in pots it will be as well to omit the usual tongue by which in open air the graft is, as it were, hung on the stock; this tonguing weakens rose-grafts too much; as their shoots are generally pithy. To prepare a young stock for grafting, you must cut off its top with a gentle slope; on the upper side of the stock—i.e. on the side of the highest part of the slope, take off with a sharp knife a slice of bark, with a *very small* portion of wood about $1\frac{1}{2}$ inch in length; then take part of a shoot about six inches in length, and pare its lower end down quite thin till it fits accurately on the place, in *length* and more particularly in *breadth*, so that the bark on graft and stock are joined closely; bind the graft to the stock firmly with strong bast mat, which has been soaked in water, and then place clay over it, so as to leave no crack for the admission of air: presuming the stock to be in a pot, it may be plunged in sawdust or old tan, leaving two buds of the graft above the surface, in a gentle hotbed, and kept close till it has put forth its shoots; when these are three inches in length, the clay may be taken off, and air admitted gradually by propping up the light; if Perpetual Roses, they may shortly be moved to the greenhouse, where they will bloom in great perfection in early spring. After this first bloom their shoots should be shortened, and if required they may be planted in the open borders, where

they will flower again and again during the summer: if Summer Roses they will flower but once, but they will make strong shoots and establish themselves for another season; if a forcing-house is used instead of a hotbed frame, they must be plunged in the same materials, as this keeps the clay moist, and generally ensures success. If convenient, grafting-wax, made as follows, may be used in lieu of clay: 1 lb. Burgundy pitch, $\frac{1}{4}$ lb. common pitch, 2 oz. bees'-wax, and $\frac{1}{2}$ oz. mutton fat, melted, and put on with a brush while warm.

In cleft-grafting, the first operation is to cut off your stock to the height required, with a clean horizontal cut, taking care to make this just above a bud: opposite to this bud, cleave your stock, making the cleft about an inch long: and avoid, if possible, cleaving through the stock. Your graft, or scion, for both terms are employed, may be from three to four inches long; having from three to four buds on it; cut one inch of the lower end of your graft to the exact form of a wedge, then pare off one side of the wedge very thin, leaving a bud, if possible, on the thick side; open the cleft with the point of your knife, or the flattened haft of a budding-knife, and insert the thin side of your one-sided wedge, till the barks of both stock and graft are perfectly even; bind with a piece of cotton twist or worsted; cover the side of the stock in which

is the cleft, and also the top of the stock, with grafting-wax, and plunge in gentle heat, as recommended for whip-grafted roses. Grafting-pitch must alone be used. If the grafts are small, this is a very nice mode, but difficult to describe; and the same result may be obtained by rind-grafting,* a very neat method. Before this operation the stocks must be placed in the forcing-house for a few days, till the bark will run, i.e. part readily from the wood; the top of the stock must then be cut off cleanly, and without the least slope; an incision, as in budding, must then be made through the bark from the crown of the stock downwards, about one inch in length, which can be opened with the haft of a budding-knife; directly opposite to this incision a bud should be left, if one can be found, on the stem of the stock; the graft must then be cut flat on one side, as for whip-grafting, and inserted between the bark and wood, bound with bast, or cotton twist, and covered with grafting-wax. In March this may be done with young shoots of the current season from the forcing-house; they must be mature: as a rule, take only bloom shoots that have just shed their flowers—these are always ripe. To those who love roses, I know no gardening operation of more interest than that of grafting roses in pots in winter; blooming plants of the Perpetual Roses are made

* The best stocks for this kind of grafting are the *Rosa Manetti*.

so quickly, and they are so constantly under observation; but for this a small forcing-house is of course necessary; a house twelve feet by eight feet, with an eighteen-inch Arnott's stove, will do all that is necessary: and the expense of a structure of these dimensions is very moderate. What can be done in the way of propagation in so small a house with method is quite astonishing. A hotbed frame will give the same results, but the plants cannot be viewed in bad weather with equal facility; that interest attached to watching closely every shoot as it pushes forth to bud and bloom in all its gay attire, is lost. To the mind happily constituted this is a calm and untiring pleasure; the bud breaking through its brown wintry covering into verdant leaves, replete with the delicate tints so peculiar to early spring, and unchecked by cold and withering blasts, makes us feel vernal pleasures, even in January; and then the peeping flower-buds, perhaps of some rare and as yet unseen variety, add to these still calm hopeful pleasures, felt only by those who really love plants and flowers, and all the lovely creations of nature.

PROPAGATION OF AUTUMNAL ROSES.

As with the Summer Roses, these may be propagated by layers, budding, grafting, following the same mode of culture, and by cuttings; the latter mode is the only one requiring special notice, as the other methods applied to Summer Roses are of equal use in propagating these. All the families in this division are propagated with great facility by cuttings; in fact, with China, Bourbon, and Tea Roses, it is the only eligible way of getting plants on their own roots. There are three seasons in which this operation may be performed with success, in spring, summer, and autumn.

For spring cuttings it will be necessary to resort to the forcing-house in the month of March, when those roses that were commenced to be forced in January will be just shedding their first crop of flowers: these blooming shoots will then be ripe, and, as a general rule, fit for immediate propagation either for cuttings or buds. It must be borne in mind that no shoots are mature till their blooming is past. The cuttings may be made with three joints or buds, from the lower end of which the leaf should be cut, leaving the others untouched; the cutting must then be inserted about one inch into a very small pot of light mould, or peat and sand, equal parts. With

rare sorts two buds will do, or even one; in the latter case, the bud must have the leaf attached, and a small portion of wood below the bud; it must be inserted in the pot so that the bud is slightly covered with the mould. The pots should then be plunged in sawdust or old tan, into a gentle hotbed, and kept perfectly close, sprinkled with tepid water every morning, and shaded from the sun. In about a fortnight they will have taken root; but they must not be removed from this close frame till they have made a shoot from one to two inches in length. They are then safe, and may be removed into another frame, still with gentle heat, and have air every day to harden them. In a week they will be fit to pot into larger pots, and they may then be removed into the greenhouse or cold frame, as convenient, till required for planting out in the borders in April and May: the pots used for the above purpose are *very small*, $2\frac{1}{2}$ inches deep and $1\frac{1}{2}$ inch over at the top; if more convenient, three or five cuttings may be placed *round the side* of a larger sized pot, $3\frac{1}{2}$ inches deep by 3 inches over. This method saves some trouble, but the plants are apt to be checked when potted off; pots of the latter size must be filled one-third with broken pieces of pots, on which the base of the cuttings should rest; the small pots require no drainage.

For summer cuttings in June and July, from plants growing against walls or in the open borders,

ripe shoots may be taken as above directed, planted in pots, and placed in a cold frame, kept close, and sprinkled every morning. These will root slowly, but surely. For autumnal cuttings any convenient and spare shoots may be made into cuttings, and planted under a hand-glass in a warm exposure, about the middle or end of September: these must have air in mild humid weather during the winter, and be gradually exposed to the air in April by tilting the light: by the end of April they will be fit for potting. All the Autumnal Roses will grow readily if the above methods are followed, and the Hybrid Perpetuals may be propagated even with less care, for if cuttings about six inches in length prepared by cutting off all the leaves but two at the top of the cutting, are planted four inches deep in a shady border, in a light soil, in the month of September, a large proportion of them will grow; in severe winters they are apt to fail. The Damask Perpetuals only are slow in rooting, and are propagated with more difficulty.

SPRING AND SUMMER GRAFTING OF AUTUMNAL ROSES.

THIS is a most interesting method of propagation, and most simple. Stocks of any free-growing

roses should be potted at any time in the autumn, winter, or early spring months; the first-named period is the most eligible. The Manetti Rose is the best stock; then comes Céline, also very good: some of the Hybrid China Roses will also make good stocks. In the month of April, the shoots of Tea-scented, Hybrid, Perpetual, and indeed of all the Autumnal Roses that have been forced will be mature and in a fit state for grafting. One certain rule may be depended upon,—when every flower on a shoot has fallen, that shoot is ripe and in a fit state; then take your stock, cut off cleanly all the shoots from the stem, leaving only those at the top, which shorten to within two inches of their base, cut off from the side of the stock a thin slice of bark, and fit the graft to it as in whip-grafting, as described in page 173; only, instead of using bast for tying, use cotton twist, and in binding on the graft do not let the threads of twist touch, but mind that you can see the bark of the stock between each thread; place the grafted stocks in a close moist heat, till the grafts begin to shoot, cutting off all the young shoots carefully from the stock below the graft, and treat them exactly as recommended for cuttings in page 177, hardening them gradually: in a fortnight they will be safe; as soon as the graft has made shoots four or five inches long, the head of the stock should be cut off close down to the graft: till this takes

place all the young shoots from the top of the stock above the graft should be shortened but not taken off.

In May, shoots from Tea-scented, China, Bourbon, and Noisette Roses, grown in pots in the greenhouse, will be fit to graft. In June, shoots from roses of the same families, growing against walls or in other warm situations in the open air will be fit; in the last-named month, artificial heat for the grafts may be dispensed with, and a close frame, well shaded with mats in sunny weather, and the plants sprinkled morning and evening, will do very well, unless the weather be windy and cool; the grafts will then require close moist heat, either from manure or hot water; in the former case, a common cucumber bed and frame, kept closely shut, will answer every purpose. These summer-grafted rose-trees are nicely adapted for pot culture: those grafted in April and May will bloom beautifully in the greenhouse till the end of December.

When the 4-inch pots in which the stocks have been grafted become filled with roots, the plants may be shifted into 7-inch pots, and plunged in old tan or sawdust in a gentle hot-bed, in a *sunny exposed situation*, till the end of September, if the weather be warm and dry; if wet and cold, they should be removed to the greenhouse early in the month: from the greenhouse they may be repotted into 8 or 9-inch pots,

and removed to the forcing-house: in January they will give abundance of flowers, and amply reward the cultivator.

DIRECTIONS FOR FORCING ROSES.

VERY few years ago forced roses were one of the luxuries of gardening, and the matter was looked upon as a difficult operation, in which accomplished gardeners only were successful; but with modern varieties the difficulty has vanished, and every one may have roses at least in February, with the most simple means.

A pit 10 or 12 feet long and 8 feet wide, just high enough to stand upright in, with a door at one end, and a sunken path in the centre, a raised bed on each side of the path, and an 18-inch brick Arnott's stove at the further end, opposite to the door, with a pipe leading into a small brick chimney *outside* (a chimney is indispensable), will give great abundance of forced roses from February to the end of May. To ensure this, a supply must be kept ready; so that, say twenty, may be placed in the forcing pit about the middle of December, a like number in the middle of January, and the same about the middle of February: they must not be pruned till taken into the house, when each shoot should be cut back to two or three buds or eyes, the latter for the strong shoots.

The fire should be lighted at seven in the morning, and suffered to burn out about the same hour in the evening, unless in frosty weather, when it must be kept burning till late at night, so as to exclude the frost; and for this purpose double mats should be placed on the lights. The thermometer should not, by *fire heat*, be higher in the day than 60° during December and January: at night it may sink to 35° without injury. The temporary rise in a sunny day is of no consequence. When the sun begins to have power, and in sunny weather towards the end of February, air should be given daily, and the plants be syringed every morning about ten o'clock with tepid water, and smoked with tobacco at night on the least appearance of the aphid or green fly.

To ensure a fine and *full* crop of flowers, the plants should be established one year in pots, and plunged in tan or sawdust in an open exposed place, so that their shoots are well ripened: the pots must be often removed; or, what is better, they should be placed on slates to prevent their roots striking into the ground; but with the Hybrid and Damask Perpetuals, even if only potted in November previous, a very good crop of flowers may often be obtained, and a second crop better than the first; for the great advantage of forcing Perpetual Roses is that after blooming in the greenhouse or drawing-room, their young shoots may be cut down to within two or three

buds of their base, and the plants placed again in the forcing-house, and a second crop of flowers obtained. The same mode may be followed also with the Bourbon, China, and Tea-scented Roses; with the latter, indeed, a third crop may be often obtained.

Towards the end of March, when the second crop of flowers is coming on, the plants should have *abundance* of air daily; this will make them hardy and robust. Syringing should be practised every morning and evening; but when the flower-buds are ready to open, this must be confined to the stems of the plants and the pots, otherwise the flowers will be injured by the moisture. Care must be taken to remove the plants from the forcing-house to the greenhouse or drawing-room before their blossoms expand; they may then be kept in beauty many days. I have not found the check which the plants receive by this sudden change of temperature at all detrimental. During their second growth the plants should be watered once a week with manure water,* and the surface of the pot occasionally stirred. Worked—i.e. budded—roses are the most eligible for forcing: these seldom or never fail to give an abundant crop of flowers; stems from 6 inches to $1\frac{1}{2}$ and 2 feet are equally eligible: the latter form

* One pound of guano to twenty gallons of water forms the very best species of liquid manure for pot culture; for the borders, double that quantity will be better.

elegant plants, and I think generally grow with greater luxuriance than dwarfs. China and Tea-scented Roses on their own roots are more delicate, and require more care; still one crop of flowers may always be depended upon, even from them: instead of forcing them for a second crop, it will be better to place them in the greenhouse, they will then bloom again finely in May. I find, from experience, that all the Autumnal Roses may be forced every year without any disadvantage: to ensure their well-doing, they must be removed from the forcing-house early in June, the surface of the pots dressed with rotten manure, and plunged in the same, or leaves, or any light substance. Towards the end of August they should be carefully shifted—removing a portion of the earth from their roots and loosening the ball of earth and roots by pressing it with the fingers—into a compost of light loam and rotten dung, two-thirds of the former to one-third of the latter (this is, on the whole, the very best compost for potted roses), watered, and again plunged till required for forcing: this shifting would be better performed in June; but, as the weather is then often hot and dry, roses worked on the Dog Rose are apt to suffer. Pots of the sizes called near London 24's and 16's* are the best sizes for

* The respective sizes of these pots are,—24's, $7\frac{1}{2}$ inches deep, and 8 inches over, measuring across the top of the pot; 16's, $8\frac{1}{2}$ inches deep, 9 inches in diameter.

strong plants of roses for forcing: when potted, the large and unyielding roots should be cut off close, so that the plants may stand in the centre of the pots, the fibrous and small roots merely tipped.

The treatment recommended for roses in a pit with Arnott's stove may be pursued with roses in a house with smoke-flues or hot-water pipes. Arnott's stove is recommended as an economical and eligible mode of heating, practised here to some extent with success for several years: on these stoves an iron pan, fitted to the top, should always be kept full of water. To sum up, give forced roses plenty of heat and plenty of air during the day, and a low temperature, say from 35 to 45, at night.

CULTIVATION OF ROSES IN POTS FOR THE GREENHOUSE.

For this purpose a selection should be made of some of the finer varieties of China and Tea-scented Roses on their own roots; it may also include such Bourbons as the Queen, Acidalie, Aurore du Guide, Souvenir de la Malmaison, and Noisettes, Miss Glegg, and Solfaterre. These are all of dwarfish and compact habit, and free bloomers. Presuming these roses to be procured, in the spring or summer, in the usual small pots they are generally grown in by the cultivators

for sale, they should be immediately potted into pots called 32's (these are generally 7 inches deep, by 6 over at the surface), in a compost of turfy sandy loam and well-rotted manure, of the proportions given in p. 184; the loam must not be sifted, but merely chopped into pieces as large as a walnut: the fine mould, which will, as a matter of course, result from this chopping, must not be separated from the pieces of turf, but all must be well mixed with the manure or leaf-mould. The pots should then be filled about one-fourth with broken pieces of crockery or potsherds, the plants taken from the small pots, and the balls of earth gently pressed so as to loosen them; place each plant in the centre of the large pot; press the earth well round them; give a soaking of water and plunge them in sawdust or tan, in some sunny exposed place, where they may have all the sun our fickle climate will give them. They may remain plunged till early in October, when they should be removed into the greenhouse, but a fortnight before taking them into their winter-quarters, lift every pot, and place it on the surface of the bed in which they have been plunged: their roots then become hardened, and bear the dry warm air of the greenhouse without injury: they should at this time also be pruned into any handsome desirable shape (a compact bush is perhaps the prettiest), or, if tall plants are required, the long shoots may be fastened to a

neat painted stick. Roses thus treated will come into bloom in the greenhouse in April, and continue one of its brightest ornaments till the beginning of June; they should then be repotted into larger pots, if large plants are wished for, and again plunged in the open air till the autumn: care must be taken to place the pots on slates, to prevent their roots getting through the bottoms of the pots. If compact and pretty little plants are required, the same pots may be used, merely reducing the roots, so that the pot will hold a small quantity of compost for the plant to feed upon. A most excellent compost for potted roses may be made as follows:—Pare some turf from a loamy pasture: the parings must not be more than one inch in thickness; bake them in an oven about twelve hours, when the temperature is equal to that just after it has been used for baking bread; they must not be burned: * this, chopped as before directed, with one-third of rotten manure, or leaf-mould, forms one of the very finest of composts. The plants must be looked to carefully in spring, and whenever infested by the aphid or green fly, tobacco-smoke must be applied. Mildew is easily destroyed by sprinkling sulphur on the foliage, and suffering it to remain undisturbed for

* I have used, with much success, turf roasted on a sheet of iron (placed on temporary brickwork), under which a moderate fire has been kept: about an hour's roasting is sufficient. This chars the turfy side, and acts most beneficially.

one or two days; the plants should then be plentifully syringed: extraordinary luxuriance of growth may be given by watering them once a week with guano-water.

A season may be saved in the growth of these roses, if plants in larger pots than those they are usually sold in are purchased: if these are procured in the autumn or winter, they may be placed in the greenhouse at once with a certainty of succeeding.

CULTIVATION OF SUMMER ROSES IN POTS.

FOR this purpose, a selection of the finest double varieties are alone eligible. Plants worked on neat stems not more than four inches high, and with fibrous compact roots, so that they will admit of being placed in the centre of the pots, should be potted late in October or early in November, in 24-sized or 8-inch pots, in a compost of loam and rotten manure, or loam and leaf-mould and manure, in equal quantities; if to a bushel of this compost half a peck of pounded charcoal is added, it will be improved. After potting they should be placed on slates, and then plunged in sawdust or old tan, so that the surface of the mould in the pots is covered about two inches in depth with the material used for plunging. A sunny exposed

situation is better than under a wall, for when placed near a wall the branches always incline from it, so that the plant, in lieu of being round and compact, as it ought to be, becomes one-sided; in February following they may be pruned in closely, i. e. to within two or three buds of the base of each shoot, and remain plunged during the summer; additional vigour may be given by removing the sawdust or tan from the surface of the pots in March, and substituting rotten manure; during the summer all suckers must be carefully removed, and in June, July, and August, all luxuriant shoots shortened, by pinching off their ends, and superfluous shoots nipped in the bud; so that each plant is made to form a neat compact bush, not too much crowded with shoots. If this is properly attended to, they will scarcely require pruning the following spring, but only a few of the shoots thinned out, i. e. entirely removed. These plants will require abundance of water in dry hot weather in summer, and once a week in June and July they should be watered with guano water, 1 lb. to twenty gallons of water will be of sufficient strength; if not placed on slates, the pots must be removed once a fortnight, to prevent the roots entering the soil underneath the pots, which will give them much additional vigour: but the check they receive when removed is very injurious; this must, therefore, be carefully guarded against. The above treatment is also applicable to Moss and

Provence Roses on their own roots, which, when required for forcing, may at once be removed from the plunging-bed, after having remained there one summer, to the forcing-house; those required for exhibition only, may also remain there till near the blooming season; when, if it is wished to retard them, they may be placed under a north wall; if to accelerate, they may be removed to the greenhouse, or to any pit or frame under glass.

With the exception of the Moss and Provence Roses, which are, and always will be, favourites for forcing, Summer Roses are not so eligible for pot-culture as the Autumnal Roses: they bloom but once, and, if intended for exhibition, it is so extremely difficult to have them in perfection on any given day: if the season be cold and cloudy it is most difficult to bring them forward, as fireheat in summer is injurious to roses brought from the open air; and if dry and hot, it is equally difficult to retard them; at least, this can be done only for a *very short* period.

Moss and Provence Roses that have been forced have generally been thought to require a season's rest; but with the following treatment this will not be required. Presuming that they have bloomed in February or March, they should have their shoots shortened to within two or three buds, repotted and placed in a cold frame, plunged in the before-mentioned materials, and, towards the end of April, placed in the open air, as before

directed; if carefully attended to during the summer, the plants will be sufficiently vigorous to bear forcing again the ensuing season; those plants intended only for exhibition, or to bloom at the usual season without forcing, may be shifted annually towards the end of September, and a portion of earth shaken from their roots; from 8-inch pots they may be shifted into 9-inch or 16-sized pots; and it will not be advisable to place them in any of the larger-sized pots, unless plants are required of extra size, as they become heavy, and difficult to move with safety.

There appears to me much room for improvement in the pot-culture of Summer Roses. Why should they not have shade and shelter? Are they less worthy than the gaudy but odourless tulip? the carnation? the auricula? All these have shade and shelter in their blooming season. Why, then, have we neglected to give it to the rose? simply because fashion has not led the way. We well know how frequently rain and wind destroy nearly all the flowers of our Summer Roses; how easy, then, would it be to erect a light shed covered with canvas, something like those used to cover tulips, when in bloom. An erection of this kind, thirty to forty or fifty feet long, and from eight to ten feet wide, would admit of a path in the centre, and a border of roses in pots on each side. If the weather should be unfavour-

able, their flowers would expand in perfection, unscathed by those summer storms of wind and rain, peculiar to our climate, so fatal to flowers, and, above all, to roses : and if, on the contrary, we have ' real merry days of June,' with a glowing and unclouded sun, how agreeable would be the shade of the ' rosarium,' how beautiful the tints of the flowers thus shaded, and how delightful their perfume ! If the weather be warm and dry, roses placed in a temporary erection of this kind should be carefully, but not too abundantly, watered every evening—and what is better than saturating the pots with water—the central path should be sprinkled two or three times a day, and water poured on the ground between the pots. The canvas covering should always be drawn up in calm cloudy weather, day and night, for roses are impatient of confinement.

CULTURE OF ROSES IN POTS FOR EXHIBITION.

THE most elegant pot roses for exhibition may be selected from those families recommended for greenhouse culture ; but as it is now the fashion for Horticultural Societies to offer prizes for ' roses in pots,' it becomes my duty to offer a few observations on growing hardy varieties of roses in pots, so as to form very large plants. I must

here caution the reader that occasional disappointment must be expected in growing them in pots for exhibition, as roses, like facts, are stubborn things, and will often, in summer, bloom just whenever it pleases them to do so, not being easily retarded or forced : now, as days of exhibition are usually fixed before it is known whether we are to have an early or a late season, it is frequently a complete lottery whether any particular plants of rose will be in bloom or not. I have sometimes known on days fixed for the exhibition at Chiswick, that I have looked over fifty plants of one sort before I could find three or four perfect flowers. The roses recommended for greenhouse culture, from their producing a succession of bloom, must be most relied upon by the exhibitor : but if, by a lucky chance, a collection of Moss Roses, or some of the finer kind of French and Hybrid Bourbon or Hybrid Perpetual Roses, could be enticed to show themselves in all their gay attire on *the* day, they would make the greenhouse roses 'hide their diminished heads.'

To form a collection of hardy roses in pots, the very best should be selected from the following families : French, Hybrid China, Hybrid Bourbon, and Hybrid Perpetual. Now for hardy pot roses, except Moss Roses, in which the choice is limited, only those with very double flowers, and stiff waxy petals, should be selected. The following will not disappoint the amateur. I ought here to

mention that it is better to pot two, or three, or four of any one good sort, rather than have a greater variety of second-rate roses.

NAME	FAMILY
Kean	French.
Chénédolé	Hybrid China.
Charles Duval	Hybrid Bourbon.
Charles Lawson	Hybrid Bourbon.
Coupe d'Hébé	Hybrid Bourbon.
Paul Ricaut	Hybrid Bourbon.
General Jacqueminot	Hybrid perpetual.
Jules Margottin	Hybrid perpetual.
Louise Peyronny	Hybrid perpetual.
Madame Rivers	Hybrid perpetual.
Souvenir de Comte Cavour	Hybrid perpetual.
Robert Fortune	Hybrid perpetual.
Professor Koch	Hybrid perpetual.
William Griffiths	Hybrid perpetual.
Anna Alexieff	Hybrid perpetual.
Anna de Diesbach	Hybrid perpetual.
Comtesse Cecile de Chabrillan	Hybrid perpetual.
Madame Vidot	Hybrid perpetual.
Triomphe de Lyon	Hybrid perpetual.
Gloire de Santenay	Hybrid perpetual.
Senateur Vaise	Hybrid perpetual.
Charles Lefebre	Hybrid perpetual.
François Lacharme	Hybrid perpetual.
Duc de Rohan	Hybrid perpetual.

The following varieties, all equally worthy of culture, will require the same treatment in summer as the above; but it will be necessary to remove them to the greenhouse or some other glass structure in November, for protection during the winter: they will in the spring require the treatment recommended for greenhouse culture,

and they must be kept under glass till the time for exhibiting.

NAME	FAMILY
Adam	Tea-scented.
Devoniensis	Tea-scented.
Julie Mansais	Tea-scented.
Madame de St. Joseph	Tea-scented.
Madame Willermoz	Tea-scented.
Moiré	Tea-scented.
Souvenir d'un Ami	Tea-scented.
Vicomtesse Decazes	Tea-scented.
Duc de Magenta	Tea-scented.
Gloire de Dijon	Tea-scented.
Louise de Savoie	Tea-scented.
Acidalie	Bourbon.
Aurore du Guide	Bourbon.
Louise Odier	Bourbon.
Reveil	Bourbon.
Souvenir de la Malmaison	Bourbon.
Vorace	Bourbon.
Baron Gonella	Bourbon.
Comte de Montijo	Bourbon.

The above are all of first-rate quality; their flowers are very double, and their petals thick, and not liable to fade quickly. About the end of October worked plants should be selected on very straight stems, not more than from six to eight inches in height. *Care must be taken that their roots are so formed that each plant may be placed in the centre of the pot:* unless this is strictly attended to, they will make but a poor appearance, as may be seen by some of those exhibited at the horticultural shows. If any of the large roots interfere with the position of the plant in

the pot, they may be much shortened, merely taking off the tips of the small roots and fibres.

Stems from four to six inches may be taken generally as the most eligible height; but, to form plants for the back row, varieties of the following families may be on stems one foot to eighteen inches: they will increase the effect; viz. Hybrid China, Hybrid Bourbon, and Hybrid Perpetuals. Many of these will form, when in full bloom, fine rounded heads. When plants of the above description have been selected, they may be potted into No. 16's, or 9-inch pots, in a compost of two parts of nice turfy loam and one part of rotten dung; the loam should, if possible, be more rich and adhesive than that recommended for the plants under greenhouse culture. If some of the plants are very strong, pots a size larger, called 11-inch or eights, may be used; they should then be plunged in the open air on the surface of the soil, in sawdust, rotten leaves, or old tan, which should be four inches deep on the surface of the mould in the pots, care being taken to place the bottom of each pot on a slate, for reasons before given. I recommend the pots to be placed on the surface, rather than to be plunged in the ground, as they then receive the full influence of the sun to their roots. Towards the end of February each plant must be pruned to within six or eight buds of the base of the strong shoots, and to within two or three buds of those that are more weak: it

will be as well, however, if the plants have very long shoots, to shorten these one-third at the time of potting, as this prevents their being racked by the high winds of November. These Autumnal potted roses will not be fit for exhibition the first season after potting; they must have an entire summer's growth and good cultivation; in the autumn, when they have been one year in pots, if large plants are required, they should be shifted into No. 8's or 11-inch pots, and replunged in the place they have occupied. Towards the end of November, Tea-scented, Bourbon, and Noisette Roses should be removed to their winter quarters, under glass, but they may be wintered with safety out of doors, if abundance of branches of evergreens are placed among them: the Hybrid Perpetuals ought also to have this shelter. Autumnal pruning will tend to give an earlier bloom: therefore, one-half of the plants may be pruned in October, if this is the object sought for; the remainder in March, or even as late as April; indeed, this will give the exhibitor a chance of having *some* plants ready on the important day. In May, if the weather be hot and dry, the plants, although plunged and apparently moist, will require water daily; and once a week a regular soaking with guano water will insure a most vigorous growth, and defy all attacks of the aphid or any other little pest, the grub excepted, which must be carefully sought for in

all those young leaves on the flower stems which appear glued together.

The plants will require shifting annually; in general, pots of the same size will do, taking about one-third of the mould clean from their roots, and giving them a fresh and rich compost. The middle of October is the best period for this annual shifting. I have before said it is most difficult to retard or force into bloom roses grown in pots in the open air; however, removal into the greenhouse for a week or ten days to force them, if required, may be tried: to retard them, the method employed by the courtier, in the days of Elizabeth, to save his cherries for his queen, may be essayed, viz. stretch a piece of canvas on hoops over the plants, and keep it constantly wet by sprinkling it with water.

I wish success to all those who intend to exhibit roses in pots, but must again caution them not to be soured by one or two disappointments, as the sun will shine and hasten, and clouds will come and retard, and possibly blight the hope of being able to exhibit twelve or twenty roses on some appointed day.

ACCELERATING THE GROWTH OF ROSES IN POTS.

A VERY simple and efficient method of gaining two years' growth in one has been practised here

for many years, and imitated by numerous rose-growers.

About the first of May a hotbed should be made, five feet wide and three feet in height—if of leaves and manure equal parts, all the better, its heat will last longer—on this bed some light mould should be placed, about six inches thick, supported by boards. Roses intended for rapid growth should be taken from their small pots, their balls of earth loosened, and potted into 24-sized or 8-inch pots, with the usual compost; these should be plunged up to their rims in the bed, and the surface of each pot covered with rotten manure, about an inch thick. They may remain thus plunged for six or seven weeks, at the end of which time the heat of the bed will have declined; the pots should then be removed, and the soil they are plunged in; the bed should then be remade with about half its bulk of fresh manure mixed with it, the pots replunged, and the plants suffered to grow till autumn, when they should be removed to pits or houses appropriated to their culture.

The luxuriousness of growth gained by this method is quite marvellous, small plants become large bushes, and put forth grand trusses of flowers.

STOCKS FOR ROSES.

HITHERTO the Dog Rose has been used almost indiscriminately for all kinds of roses for standards ; nothing better is required, at least for those sorts that grow vigorously ; but in the culture of dwarfs, a great improvement may be made by using the Céline and the Rosa Manetti. The Sem-pervirens Rose, *Félicité Perpétue*, makes also a most excellent stock for dwarf roses ; also the Hybrid China Rose, *Descartes*. These strike readily from cuttings planted in November in open borders.

In making cuttings, take one-year-old shoots and cut them into lengths of one foot : the bottom of the cutting should be cut close to a bud, and not sloping ; the top should be cut just above a bud, with a gentle slope : then carefully cut out all the buds but two at the top. In planting, the section of a ridge must be formed, the cutting placed firmly against it, and the earth dug up to it, and firmly pressed ; when finished the row of cuttings should stand in the centre of a ridge about eight inches high, and only one bud of the cutting above the surface ; from being thus moulded up no exhaustion takes place during the dry frosts of winter and spring, and every cutting will grow ; in July or August of the following season they will be fit to bud. The ridge must be levelled so as to expose the main stem of the

cutting; and in this, at about three or four inches from the bottom, the bud must be inserted. The stocks should be budded as soon as possible after being uncovered, or the bark will become rigid, and will not open freely.

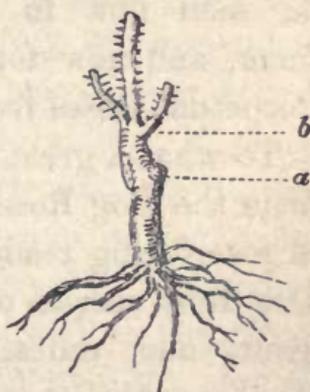
The Céline stock, a very old Hybrid Bourbon Rose, is a most excellent stock for Bourbon, Noisette (particularly the Cloth of Gold), and many other roses; if planted in a rich moist soil, it will make shoots from four to five feet in height, fit for low standards.

The Rosa Manetti is a rose I received some thirty years since, from Como, from Signor Crivelli, who recommended it as the very best of all roses for a stock. It was raised from seed by Signor Manetti, of the Botanic Garden at Monza. All the roses I have budded on this stock have succeeded admirably; above all the Hybrid Perpetuals, which scarcely seem to know when to leave off growing and blooming in the autumn; indeed it is remarkable for its late growth: for it may be budded during the whole of September; another excellent quality is, that it never gives any suckers from its roots at long distances from the plant, like the Dog Rose; it seems to flourish equally in light and dry as well as in stiff soils; and it will, I trust, be of much value to the rose amateur, who, if the soil of his rose garden be light and dry, is so often troubled with the numerous suckers thrown up by the Dog Rose. I

am, indeed, now fully convinced that the only method of cultivating dwarf Hybrid Perpetual Roses in soils that are gravelly, sandy, or resting on chalk, is to employ the Manetti Rose as a stock.

Since the above paragraphs were written, more experience with this has been gained; although so vigorous in growth *it does not form good standards*, the stems with their side branches left on increase rapidly in bulk, but when they are budded at the height proper for standards, and the side branches cut off, the bark becomes indurated, the sap apparently ceases to circulate freely, and the stems in a year or two shrink, and the head becomes stunted in its growth and unhealthy. Some of the vigorous-growing Hybrid China Roses make good half-standards on this stock, but its great eligibility is for dwarfs; these should be budded close to the ground, and when transplanted from the nursery, should be planted so as to cover the junction of the bud with the stock, placing that part about one inch and a half or two inches below the surface of the border.

The annexed figure will illustrate my meaning better than a host of words. *a*, junction of the bud with the stock; *b*, the height to which the stem should be covered with earth. Treated in this



way the covered part of the stock increases rapidly in bulk, the sap flows freely through it, and most vigorous and healthy growth is the result. I have observed a peculiarity in this stock worthy of notice; under certain circumstances, the sort budded on it will entirely overpower its suckers, so that, in a year or two, the plant from the bud will gain the ascendancy, and the suckers, without being removed, will languish and die. This has occurred here in several instances with stocks planted out for stocks for propagation in a stiff clayey soil; some of these had dormant buds in them, which had not put forth their shoots with the usual crop of plants, and were thrown on one side as stocks. Now the curious part of the matter was, that immediately these stocks were planted out for stocks in a stiff soil, and so deeply that the dormant buds became slightly covered with earth, they pushed forth most vigorously; and although the stocks at the same time put forth suckers which were suffered to grow, they have, as may be seen now in most instances, overpowered them, and now form vigorous bushes of Hybrid Perpetual Roses from three to six years old.

To what a great extent, in this respect, it differs from the Dog Rose stock will be at once apparent to rose-loving readers: for we all know that the Dog Rose carries on a fierce war with its bud or graft, and, unless most carefully attended to, destroys it by its suckers in one season. A method

of growing standard roses in dry unfavourable soils, with the aid of the Manetti stock, may be practised by those who really love rose culture; some robust-growing, Hybrid China Rose—Madame Pisaroni and Duc Decazes are two vigorous-growing varieties—should be budded on strong Manetti stocks below the surface of the soil, which should be removed for the purpose; from each bud one shoot should be encouraged and supported with a stake, and all others carefully removed; the second season of growth the stems thus formed may be budded with Hybrid Perpetual Roses and others; they soon form nice healthy stems.

Stocks of the Dog Rose should always be planted in November. Those intended for dwarfs may be cut to within six inches of the root, those for dwarf standards and standards to the requisite lengths. After planting, cover the surface of the soil near their roots with litter or fresh manure, three or four inches deep; in August of the following season they will be in fine order for budding. Hedge budding, lately recommended in the 'Gardeners' Chronicle,' may be practised under particular circumstances. Thus, if some fine stocks, that have been overlooked in autumn, are discovered in February, in lieu of removing them to the rose garden, bud them in the hedge in July or August following; attend to them the following summer, and remove them to the garden

in the autumn. If removed with the dormant buds the same autumn they are budded, they will, unless the plants are well rooted, not break well; but, if the stocks can be removed with tolerable roots, it will, unless the hedge is very near the house, be interesting to have them in the garden, so as to be able to watch over them carefully. By the former method you will have very strong plants to remove into the garden, fifteen months after budding; by the latter, you may remove your stocks with their buds three months after budding. You will probably lose a few of your plants, from their being deficient in roots, and some of your budded stocks will refuse to push or break, from the same cause. Your roses will *ornament your hedge* during the summer, prick your fingers, and give you some trouble to prune and superintend. Your buds will *bloom in the garden*, though not with equal vigour; still, if Hybrid Perpetuals or Bourbons, with much freedom, and constantly be under your eye. I can only say that the culture of roses, whether in the garden or in the wilderness, is always interesting.

PLANTING.

NOVEMBER and DECEMBER are so well known to be favourable months for planting roses that it is

thought by many amateurs no others are or can be so eligible : on dry sandy soils, this is quite correct ; but on wet retentive soils, if the holes are opened in winter, so that the mould becomes pulverised by frost, February is much better. In light soils, a mixture of well-rotted cow-dung and rich stiff loam from an old pasture, giving to each plant, if a standard, a wheel-barrowful, if a dwarf, about half that quantity, will be found the best compost ; if the soil be stiff, the same quantity of manure and pit or road sand, or burnt earth, equal parts, will be most eligible. The roots of the plants will require but little pruning ; merely shorten any that are long and straggling ; and if the plants are very luxuriant, those planted in autumn may have their branches shortened to about half their length to prevent the wind rocking them ; in February they may be finally pruned as directed for each family : in spring-planting they may be pruned before they are planted. In every case some manure, to the extent of three or four inches in depth, should be placed on the surface round the stem of each plant : this keeps the roots in a moist state and enriches the soil.

Standards should not be planted nearer to each other than three feet, and dwarfs in beds from twenty-one inches to two feet apart.

SOILS.

THE most eligible soils for roses budded on the Dog Rose stock are strong alluvial loams inclining to clay, they also grow well in heavy calcareous clays, for on a steep bank on my premises, which was cut through in lowering the turnpike road, leaving a bare surface of white clay, full of chalk stones with literally no surface soil, Dog Rose stocks were made stout shoots, fourteen feet long in one summer. Still any deep soil with a cool subsoil suits them well. A light surface soil with gravel or sand beneath is not favourable to them; but, with abundance of surface manure, Standard Roses will even in such soils do pretty well. Stiff soils on the whole are most favourable, for they are the soils in which the Dog Rose grows most vigorously, and if they are of the most retentive nature, they are easily corrected by some burnt earth and manure.

It is light sandy soils that are naturally unfavourable to Standard or dwarf Standard Roses budded on the Dog Rose, and in such soils they should not be planted; but the remedy is simple, for by planting pyramidal roses on the Manetti stock, as directed in p.114, no soil obstacle remains, and the rose lover may cultivate his favourite flower in the sands of Bagshot, the blowing sands

of Norfolk, or the equally light sands of the neighbourhood of Folkestone.

Roses on the Manetti stock require no admixture of clay to make them flourish, and but a small quantity of manure; still they are benefited by surface manures; which should be applied in November and suffered to subside by the rains of winter, and the courses which take it to the roots by the usual process of nature.

I have never yet seen a soil so bad as to require to be removed; if very stiff, sand, burnt earth, and manure may be mixed with it, so as to make it fit for roses on Dog Rose stocks; if very light, plant roses on the Manetti stock.

Numerous platitudes have been penned on the subject of soils for roses, so it may not be out of place to condense in the following summary my opinion.

Standard and dwarf Standard Roses, on Dog Rose stocks, may be successfully cultivated in soils consisting of stiff loamy clay, whether calcareous or feruginous; in rich sandy loams resting on clay; in low alluvial bottoms where standing water is not less than two feet from the surface; and in deep dark-coloured vegetable soils.

In light soils with subsoils of chalk, gravel, or sand, Standard Roses cannot be successfully cultivated without abundant surface manures and biennial removal. In such soils, Pyramidal Roses, as described in p. 114, on the Manetti stock, and

dwarf roses in the same stock are alone adapted, and if planted as directed in p. 203, they will abundantly reward the cultivator.

SURFACE-DRESSING.

To cultivate roses in perfection, and more particularly standards, they should have annual surface-dressings of manure, or some rich compost. For standards or pillar roses on lawns, presuming that the usual circle of bare earth is round each tree, as recommended in p. 38, common manure should always be applied in autumn, about two shovelfuls to each tree. Its effects are gradually washed down to the roots during winter.

Night-soil, mixed with the drainings of the dung-hill, or even with pond or ditch water, so as to make a thick liquid, and applied once or twice in winter, giving one or two gallons to each tree, will be found of great use. Brewers' grains, after being fermented in a heap two or three weeks, and mixed with burnt earth, say one-fourth, giving from half a peck to a peck to each tree in November or December, are a most powerful stimulant. Night soil, mixed with burnt earth in the same proportions, is an excellent surface-dressing. In spring the soil should be stirred to the depth

of one or two inches round each tree. For a summer surface-dressing, guano and wood-ashes answer well in the proportions of half a peck of guano to a bushel of ashes, giving a quarter of a peck of the mixture to each tree in a circle three feet in diameter round the stem, and letting it remain undisturbed on the surface; with this dressing abundant watering in dry weather is quite necessary.

INSECTS.

THE rose in all its stages is, if possible, more liable to the attacks of insects and various diseases than any other hardy shrub. There are many very ornamental trees and shrubs which grow from year to year without any apparant disease, and increase in beauty annually as they increase in size. How different is it with the rose—unless it be some hardy climbing sort—for a choice kind of rose left unpruned and uncared-for for only one season, often dies or becomes so weakly as scarce to be restored to vigour. Foremost among its enemies is the Rose Aphis (*Aphis Rosæ*) which seems to multiply itself almost magically. Some fine evening in June you may be enjoying the vigorous healthy shoots of your rose trees apparently clean and fresh and free from all blight. The next morning by 10 A.M. nearly every shoot

may be found coated with its living world of insect life; some green, some brown, or brownish, but all absorbed in one pursuit—sucking the life-juice from every shoot and leaf; no enemy to the rose is so persevering or so injurious, for in twenty-four hours those fine luxuriant shoots crowned with their buds of promise will, if left uncared for, be withered and unsightly. It is a source of real pleasure to be able to give a simple and most efficient remedy for this pest. The first intimation of it, if I mistake not, appeared in the 'Gardeners' Chronicle:' it is now one of those valuable compounds that will endure as long as gardens are cared for, for it is death to every description of aphid.

Take four ounces of quassia chips, and boil them ten minutes in a gallon of soft water; strain off the chips, and add four ounces of soft soap, which should be dissolved in it as it cools, stirring it before using.

If roses on walls are infested, the syringe may be employed, but for standard roses and rose-bushes it may be applied after the following method. Place a piece of slate or glass upright in the left hand, then apply this to the shoots of the tree so that they rest against it; then with a moderate-sized painter's brush in the right hand, well saturated with the mixture, brush every leaf and shoot upwards: two or three minutes will

finish the business. After ten minutes or so have elapsed, the dead and dying insects should be washed off the tree with pure water from a syringe having the usual rose affixed to it. There is no occasion to mention any other remedy for the rose aphid; all that have hitherto been given in the rose books are more or less offensive, such as fumigation, tobacco water, &c. The decoction of quassia and soft soap is the least offensive and most efficacious of all aphid remedies. In early spring, often in March but more frequently in April, the rose weevil '*Otiorhynchus*,' which hides itself either in crevices of the bark or in the ground, often commits great ravages by eating out the centre of each bud, and seems to favour more particularly nice plump buds in standard dog-rose stocks about which you are more than usually anxious. He can only be caught at night, and from his dark brown coat and size approaching the lady bird, a sharp eye and bright light must be employed.

In the 'merry month of May' the rose caterpillar makes his appearance; he may soon be detected, for he glues a leaf or two together to form his habitation. As soon as such leaves are perceived—and every morning the trees should be examined—these glued leaves should be squeezed between finger and thumb so as to crush him effectually, after which the leaf may be cut off.

Nothing but close attention will save your rose-buds from being perforated by him and ruined. No decoctions or infusions are of any use; the only remedy is the crushing one.

There is also the rose grub to be guarded against. It is something like a very short brown caterpillar; he eats into the young and succulent shoot, and must be carefully sought for; his small entrance perforated in the young summer shoot of the rose may sometimes be seen; he should be at once dug out and despatched: there is no cure but this, for if the parent moths are prevented laying their eggs in holes, they will find crevices small but convenient. Number four of our enemies will make our list complete, at least as far as we know—but there may be hidden foes.

Our present subject is the larva of the saw-fly: this most tiresome pest makes its appearance from July till quite the end of summer, more particularly in dry hot weather, and in warm dry soils. The rose cultivator, if he sees some leaves veined with semi-transparent veins, must at once be on the alert and turn up each leaf to find the enemy; he will soon be found at work eating greedily the under surface of each leaf, so as to make it almost a skeleton, and semi-transparent. He is an ugly little fellow, and cold and clammy like a slug, but he must be sought for diligently, and crushed at once, otherwise your rose garden in a few weeks would become a garden, not of

‘dry bones’—but dry leaves, which would flutter in the wind most dismally.

DISEASES.

WE must commence with the most tiresome, if not the most fatal, of rose maladies, the white mildew, which, alas! our favourite autumnal roses too often show in autumn, is most difficult to arrest: it does not kill roses, but it destroys the beauty of the leaves and weakens the tree. Flowers of sulphur sprinkled on the leaves and shoots in the evening when they are moist with dew, and washed off with the syringe the following morning about eight o'clock, will arrest it sometimes. If the weather be hot and the sulphur be suffered to remain on the leaves all the day following, mischief often occurs and the leaves burn. If the weather be cloudy, it may remain on the leaves for twenty-four hours; in all cases syringe the leaves and shoots abundantly with pure water to wash it off.

The Rev. W. Radclyffe recommends ‘2 oz. of blue vitriol’ dissolved in hot water, and then mixed with four gallons of cold soft water; the leaves sprinkled with it night and morning.

In some soils, a species of red fungus attaches itself to the bark in bright orange-red blotches.

This species of fungus is not very common ; the cure is to wash the stems and shoots with Gilhurst compound ; if in winter and early spring, 6 oz. to the gallon of soft water : if in summer, 3 oz. to the gallon will be sufficient. If the blotch does not heal, the red bark should be pared off with a sharp knife, applying to the wound the Forsythic mortar—cow-dung, lime, sand, and wood-ashes ; equal quantities, made into a thick paste and spread on the wound with a spatula.

There is yet another red or rather orange-coloured fungus, peculiar to dry soils, which often makes its appearance in August on the under surface of the leaves of roses, more particularly those of the Moss and Provence Roses. I have seen thousands of young and old plants of these two old favourite sorts with the under surface of every leaf covered with a thick coat of impalpable bright orange-coloured dust. No cure has yet been found for this disease ; all the fungus remedies have failed. There is a prevention—the roses should be lifted and replanted every autumn, giving them at the same time plenty of manure and stirring the soil three feet deep ; rotation in cropping should also be attended to, so as to give the roses a bed in the rose garden which has had a crop of annuals the preceding summer.

In moist soils the stems and branches of rose trees are often disfigured by the growth of moss. They should be dressed in winter with

lime and soot, equal quantities, made into a thin paste.

A species of mildew, only of an opposite colour to the first named, often makes its appearance on some of our finest kinds of autumn roses. How detestable it is to see on some bright sunny morning in August, when the harvest mist has just lifted his curtain, leaving every leaf, and bud, and flower sparkling with beauty—how chilling to the roseist to see on his fine trees of *Senateur Vaise* or *Gloire de Santenay*, a few leaves with round black blotches on them, increasing daily till the leaves drop off exhausted. There seems no immediate cure for this fatal disease; I have tried the mildew applications, but without effect: it is more rife in shallow, dry, or old exhausted soils, than in deep clays with deep culture. Annual removal, deep culture, and rotation will prevent its coming.

Among roses of the old school, such as some of the Hybrid Bourbons and others, 'green-eyed' roses were very common: with our improved popular sorts, this green centre is rarely seen. When it used to be common in our rose gardens, it caused much discussion, some imputing it to over-manuring and over-luxuriance, and, as a matter of course, some to the converse. I only remember being much amused with the controversy, for in the heat of it I discovered a group of old varieties of *Rosa gallica* growing under some old elm trees—*literally starved to death*.

HOW TO HAVE ROSES IN NOVEMBER.*

‘*Dec. 8th, 1848.*—On this day I gathered a fine bouquet of fragrant roses from plants growing in the open air.’ Such is the entry in my journal of remarkable horticultural events for the year above mentioned.

My attention was now, however, more particularly directed to the bed of roses from which I gathered my bouquet. The plants were full of green leaves and bright flowers; but other plants of the same kind were nearly leafless and flowerless. How was this brought about? and why should they be thus verdant in so proverbially dreary a month? were questions that immediately pressed upon my mind. I soon, however, recollected that these plants had been removed late in spring, had been planted in a richly-manured soil, and had been cut-in very closely. This accident in culture reminded me of ‘*The Florist*,’ and its readers; and I resolved to make a little article on the subject, so that all lovers of roses may, if they please, prolong the enjoyment of their beauties.

The roses which I gathered were all Hybrid Perpetuals, and of the following varieties: *Baronne Prevost*, *Mrs. Elliott*, *Robin Hood*, *Géant des Batailles*, *La Reine*, *Dr. Marx*, *Duchess of*

* From an article in *The Florist*, by the Author.

Sutherland, Madame Laffay, Countess Duchatel, and some others. Now, working out a system from the above accident, I should recommend that a bed in every rose-garden be appropriated to these winter roses, proceeding thus:— Presuming that plants one, two, or three years old are convenient, or that a bed of Hybrid Perpetuals can be appropriated, the plants should be taken up in February, their long roots shortened to about half their length, the fibrous roots left untouched, and their heads left unpruned. They should then be planted thickly under a north wall, or fence, and remain there till the end of April. They may then be taken up; their heads closely pruned, as in the annexed figure, which is that of a dwarfed Standard Rose pruned for late flowering.



A bed must be prepared for them, which cannot be manured too bountifully. A coat, four or six inches thick, of any kind of manure in a half-decomposed state, well mixed with the soil, to a depth of eighteen inches or two feet, will give them all the necessary vigour. If the weather be dry and warm, the roots of the plants may be 'puddled,' i. e. dipped in a thick mixture of loam

or clay and water, with much advantage; and water should be poured into each hole on the mould as it is filled in, and the loose surface-mould placed on it, giving it a very gentle pressure with the foot. Rose-trees treated in this manner will last for several years, and their annual treatment may be exactly as above given; i. e. they should be taken up annually early in February, and replanted in April. In confined gardens, if the site for the winter rose-border or clump cannot be changed, it should be excavated to a depth of eighteen inches, and fresh loamy soil brought in. They will, however, prosper very well if planted in the same border for several years, but then each plant must have two shovelfuls of fresh compost of loam and manure. Hybrid Perpetual Roses thus treated will give their first blooms towards the end of July; there are then plenty of roses of every degree. Have mercy, therefore, on your winter roses. Do not suffer them to exhaust themselves with their liberal efforts to give you pleasure. Pinch off one-half, or two-thirds, of their flower-buds as soon as they are perceptible, and your reward will be roses in November.

In the following article in 'The Florist' for December 1860, I have given another method of inducing roses to bloom freely in the autumn, headed

'LATE-BLOOMING ROSES.'

My attention all this month of November, and the preceding one of October, has been drawn to a bed of roses, consisting of a score or two of dwarf plants, which have had an unceasing succession of beautiful flowers, far beyond anything I have ever seen in autumn-blooming roses. On looking into them I found them to be a new variety of Hybrid Perpetual Rose called *L'Etoile du Nord*, which was one of the new roses of 1860, condemned as not being up to my standard, its petals being thin, and the rose, although very large and of a brilliant crimson, seeming an inferior variety of *General Jacqueminot*, from which one would judge it had been raised. As the treatment of these roses may be of interest, and lead to a new and simple mode of cultivating roses for blooming very late in the season, I will, in a few words, give it.

The original plants were received from France in December 1859, with other new roses, and their shoots taken off in January and grafted on *Manetti* stocks in the grafting-house, where, of course, artificial heat is employed. They grew well, and bloomed abundantly, in a cool house, in April and May, but, as I have said, their flowers not being thought first-rate, the plants were suffered to remain in small 4-inch pots till the middle of June, and then planted out, not being thought

worthy of further pot cultivation. The ground they were planted in was heavily manured, so that they grew very freely, but were not noticed till the beginning of October, when the bed was observed to be a mass of buds and blossoms, the latter quite globular and of extraordinary beauty, and so they have continued to be till this day, the 24th of November. Now this simple fact seems to tell us, that what has resulted from accident may be carried out by rose cultivators, and lead to a method by which our rose gardens may be made more beautiful in autumn than they have yet been.

The *rationale* of the matter seems to be this. The plants, from being cramped in their growth in early summer, when all their energies are in full play, hasten in autumn to make up for lost time, and thus grow and bloom in the greatest vigour. In the 'Gardeners' Chronicle,' No. 47 (1860), page 1042, I have described strawberries as bearing freely in autumn from having been accidentally treated in the same way as my L'Etoile du Nord Roses. I should therefore counsel rose-lovers to pot in 4 and 6-inch pots in the month of November free-growing, thin-petalled roses, such as the above, General Jacqueminot, Oriflamme de St. Louis, Triomphe des Beaux Arts, and others of the same nature, so as to give diversity in colour, and allow them to grow and bloom in an orchard-house or greenhouse till the middle of June, and

then cut off their bloom-stalks and any flower-buds that remain, and plant them out in a rich border. The plants may be subjected to this treatment year after year, increasing the size of the pots to a small extent, so as always to stint their spring growth, for the roots of the plants will of course increase in bulk, and will in due course require 8-inch pots; it must, however, be a point observed, to give them as small pot-room as possible, that the early summer energies of the plant may be arrested.

I have, as it will be seen, pointed out thin-petalled roses for this culture. I do this from observation only, for at this moment I have a bed of the very old Rose Gloire de Rosamène in full bloom, and its flowers, instead of being flaccid and poor, as they are in summer, are globular, from not being expanded, and quite beautiful. I have also observed that some of the condemned new roses growing in the same bed as L'Etoile du Nord have very double flowers and thick petals; these have bloomed very imperfectly.

CHRISTMAS ROSES

EVERY cultivator of the rose is well acquainted with the difficulty of having roses in bloom in the 'dark and dreary' month of December. I

feel, therefore, much pleasure in giving the result of some experiments ending in perfect success; so that, in future, a bouquet of roses on Christmas-day may grace the festive board in company with the holly, rivalling in brilliancy the colour of its berries.

The Bourbon Rose, *Gloire de Rosamène*, is now well known by every lover of this favourite flower as a most brilliant and beautiful variety; but, like many other roses remarkable for the brilliancy of their tints, its flowers are deficient in fullness; in fact, they are merely semi-double, and, like all roses of this description, they fade very quickly in hot weather: it is only in the cool cloudy days of autumn, when their flowers never fully expand, that they are seen in perfection. This quality induced me to turn my attention to this variety, as well calculated to give a crop of very late autumnal or winter flowers.

Nothing can be more simple than their management. Towards the end of May, young plants from small pots should be shifted into 6-inch pots, in a good compost of two-thirds loam and one-third rotten manure or decayed leaves, and plunged in sawdust or old tan in the open ground, fully exposed to sun and air. They may be allowed to bloom freely all June and July, but in August and September every blossom-bud should be pinched off; this will make the plants stout and very robust, and towards the end of

October an abundant crop of incipient flower-buds will be apparent; the plants may then be removed to a light and airy glazed pit or greenhouse, and placed as near the glass as possible. No fire-heat, unless frost is very severe, should be employed, and abundance of air—they cannot have too much—should be given: it will also be much better to place the pot on slates or on a layer of sand, rather than on a dry wooden shelf. I am induced to recommend sand from the perfect success I have had with my plants, which, after being taken from the bed in which they had been plunged all the summer, were placed on sand: they put forth roots from the bottoms of the pots into the sand, grew luxuriantly all November, and commenced blooming in December. On January 4 I cut a most beautiful bouquet of flowers. I may add, that, if large plants can be procured, they may be potted into 8-inch pots, and in process of time, into 12-inch; so that large bushes covered with flowers may ornament the drawing-room in that month above all others, in which roses are ‘rich and rare’—December.

At present I know of only three or four other varieties equal to the above as Christmas roses. These are all varieties with thin petals which in the warm rose-tide of June, soon fade. *L'Étoile du Nord* is one of the most desirable. This is a new variety, a seedling from General Jacqueminot, which gives its large globular crimson flowers very

freely in November and December ; their fragrance is then delightful. *Triomphe des Beaux Arts* and *Oriflamme de St. Louis*, of the same parentages are also charming winter roses, to which we may add our old favourite *General Jacqueminot*, which, under the same management, will bloom very nicely. In addition to this valuable quality, I had almost forgotten to add that the flowers of these free-blooming and not very double roses, although almost odourless under the bright sun of June, in winter exhale a delicate and agreeable perfume.

WILDERNESS ROSES.

FOR this idea I am indebted to Professor Owen, who, wishing to ornament a wild part of his ground, full of thorns, grass, and weeds, adopted the following plan, which, I am inclined to think, is quite worthy of record.

Large sewer tubes, rejected on account of flaws in the enamel-lining, were sunk vertically in the pure gravelly soil to within an inch or so of the surface, and filled in with loam and manure, and a rose planted in the centre of each. The soil in the tube was kept free from weeds, and the running grass, and other weeds outside were prevented making their way into such good quarters. To give the roses extra vigour, some manure water was

given to them occasionally in the summer. The effect of roses growing in the highest state of luxuriance in a wilderness was most charming. The inside diameter of these tubes is 16 inches, their length 30 inches, so that they go below the roots of weeds, which would otherwise soon devour the rich compost in which the roses delight.

Every alternate year in November the tubes should be emptied, filled with fresh compost, and the roses replanted in them.

EARLY SPRING ROSES.

THE Hybrid Perpetuals are the only roses adapted for this mode of culture, which is very simple. About the end of August select some plants in a bed of roses, that you wish to bloom very early in spring; then cut all the weak shoots and shorten all those that are strong and vigorous to within five or six buds of their base. A moderate-sized tree, whether dwarf or standard, will furnish from five to seven of these vigorous shoots. They will, soon after being pruned, put forth numerous young blooming spurs; in October thin out these spurs so that the tree is not crowded, and pinch off the bloom buds, giving *no other pruning*, and in spring they will reward you with a crop of flowers earlier by ten days than roses managed in the

usual way. I have seen them from a fortnight to three weeks earlier; in 1848 they were in full bloom on May 14th.

A VERY OLD ROSE-TREE.

WHEN at Cologne in July 1857, I heard from a friend residing there, that a rose-tree existed at Hildersheim, which was planted by Charlemagne. I thought it a fable, and most unfortunately passed by Hildersheim without calling to search into the matter. Resting some time at Leipsic with a literary friend, I made further enquiries, and through him have just received the following account from his friend at Hildersheim. The present size and description of this remarkable tree may be relied upon. I give in the following narrative the words, as nearly as possible, of my Hildersheim correspondent, the first part merely legendary:—‘When Charlemagne had conquered the territory of the original Saxons, several foreign potentates hastened to show him marks of esteem and respect; among others an ambassador from the Caliph Haroun Alraschid, who, as a symbol of his authority, carried a purple banner on which were embroidered the arms of his sovereign—six roses on a golden field. Charlemagne, struck with the homage, planted a rose-tree on the place of reception, to commemorate the event. Louis the

Pious, at a later period, came to the district of Hildersheim on a hunting excursion, and after his sport, ordered mass to be said in the open air, at which all his retinue were present. The officiating priest, on returning to his habitation, and just as the Court were commencing their repast, missed the "holy image" (it is presumed the cross), and after searching in vain for it, proceeded on his way back to the place where the open air mass had been performed. It was becoming dark, and in his hurry and fear he seems to have nearly lost his way, when, lo! his eyes lighted upon the cross resting upon the branches of a wild rose-tree. He immediately attempted to regain it, when, wonderful to relate, the cross adhered to the tree, and eluded his grasp. After several ineffectual clutches, he felt sure that some high power had interfered; he therefore ran to the Court and apprised the pious Louis of the wonderful sight. The whole Court rushed forth, and on approaching the rose-tree fell on their knees in thankfulness for the sight of such a miracle. Louis then ordered the present cathedral of Hildersheim to be built over the rose-tree.'

Such are the legends of this famous tree, often referred to by German authors. Dr. Grashof, of Hildersheim, gives the following description of its present state :—'The roots are buried in a sort of coffin-shaped vault, under the middle altar of the crypt, which crypt is proved by known docu-

ments to have been built in the year 818, and to have survived the burning of the other parts of the cathedral on the 21st of January, 1013, and the 23rd of March, 1046.

‘It is remarkable that the chronicles of the town and Chapter make no mention of any harm having befallen this famous tree, which for centuries has been considered one of the lions of the district.

‘The vault in which it grows is open to the rain, and this is put down as a proof that the tree could not have been planted *after* the cathedral was built.

‘The trunk, eleven inches in diameter, is conducted through an opening in the wall, which is five feet thick, and then reaches outside some inches above the surface of the ground, from whence two old branches and three younger arms spread out with their twigs and leaves, and cover a space twenty feet in height and twenty-four feet in breadth, being arranged on a sort of iron railing on the eastern side of the vault.

‘This tree has been an object of especial interest to the Chapter from the building of the cathedral; and botanists attribute its present size to the fact of its being sheltered from frosts and storms by the different buildings and cloisters of the cathedral, and from the touch of rude hands by trellis-work.

‘Bishop Hepilo (1054–1079) had it carefully

spread out on the outer wall built by him, and placed in the archives a record of this as also a description of the massive vault built under the high altar for the reception of its roots. The opening in the wall was made about 1120; the tree was in high esteem in the thirteenth century.'

Thus ends the history of this most remarkable rose-tree. I have only to regret that its species is not mentioned; but as it is in the legend called a Wild Rose, it is probably *Rosa canina* or the Dog Rose. This I hope ere long to ascertain.

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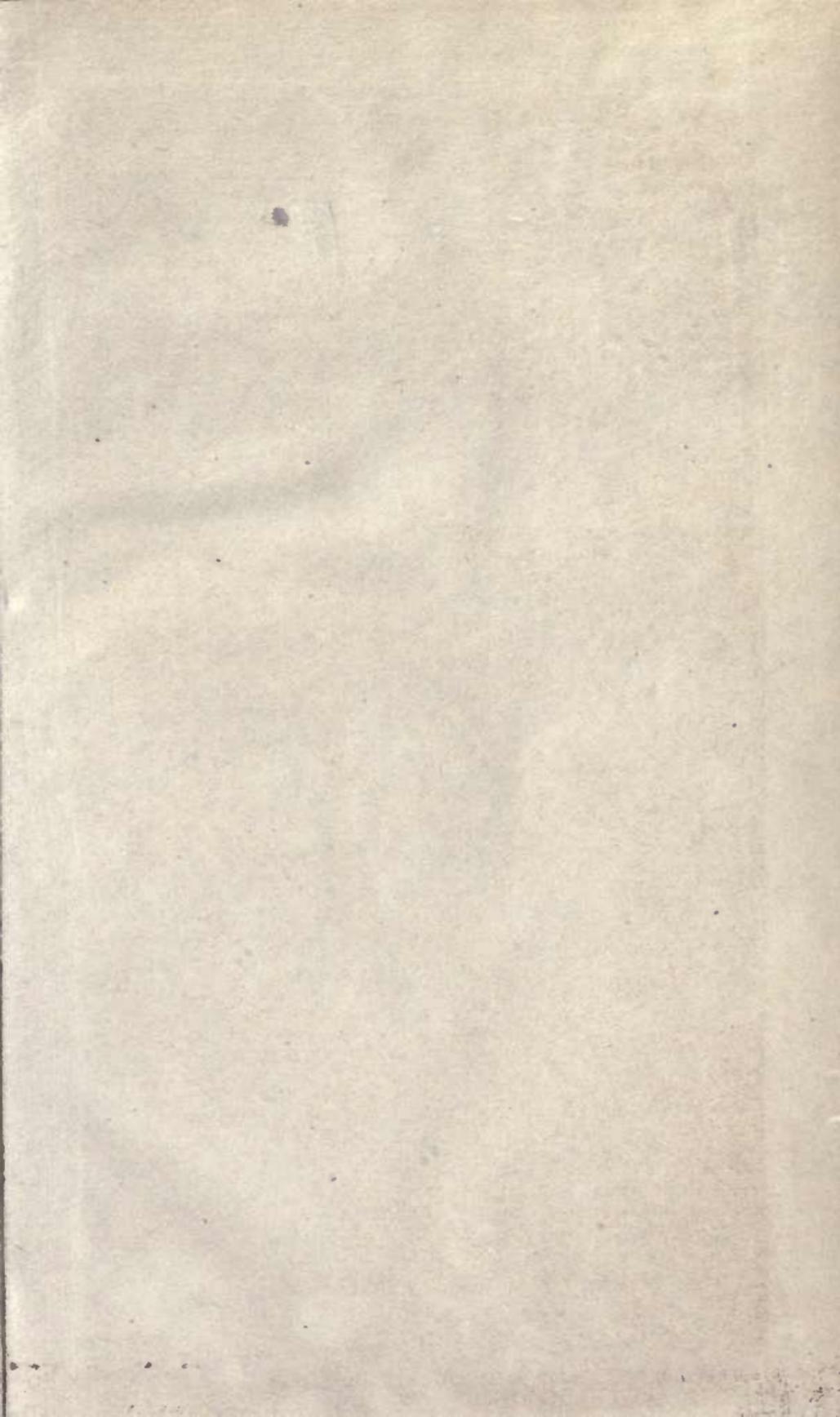
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