

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1997

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion along
interior margin / La reliure serrée peut causer de
l'ombre ou de la distorsion le long de la marge
intérieure.
- Blank leaves added during restorations may appear
within the text. Whenever possible, these have been
omitted from filming / Il se peut que certaines pages
blanches ajoutées lors d'une restauration
apparaissent dans le texte, mais, lorsque cela était
possible, ces pages n'ont pas été filmées.
- Additional comments /
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed /
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression
- Includes supplementary material /
Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips,
tissues, etc., have been refilmed to ensure the best
possible image / Les pages totalement ou
partiellement obscurcies par un feuillet d'errata, une
pelure, etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.
- Opposing pages with varying colouration or
discolourations are filmed twice to ensure the best
possible image / Les pages s'opposant ayant des
colorations variables ou des décolorations sont
filmées deux fois afin d'obtenir la meilleure image
possible.

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

	10x		14x		18x		22x		26x		30x	
							✓					
	12x		16x		20x		24x		28x		32x	

The copy filmed here has been reproduced thanks to the generosity of:

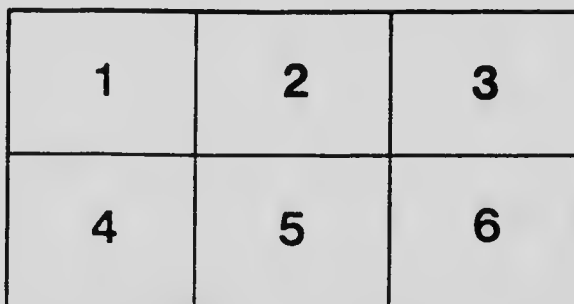
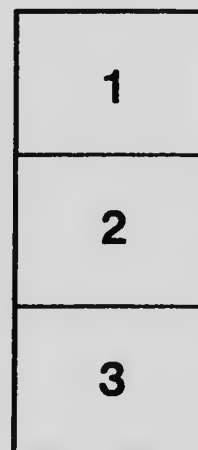
Library
Agriculture Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche sheet contains the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Bibliothèque
Agriculture Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

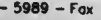
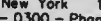
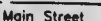
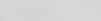
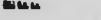
Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

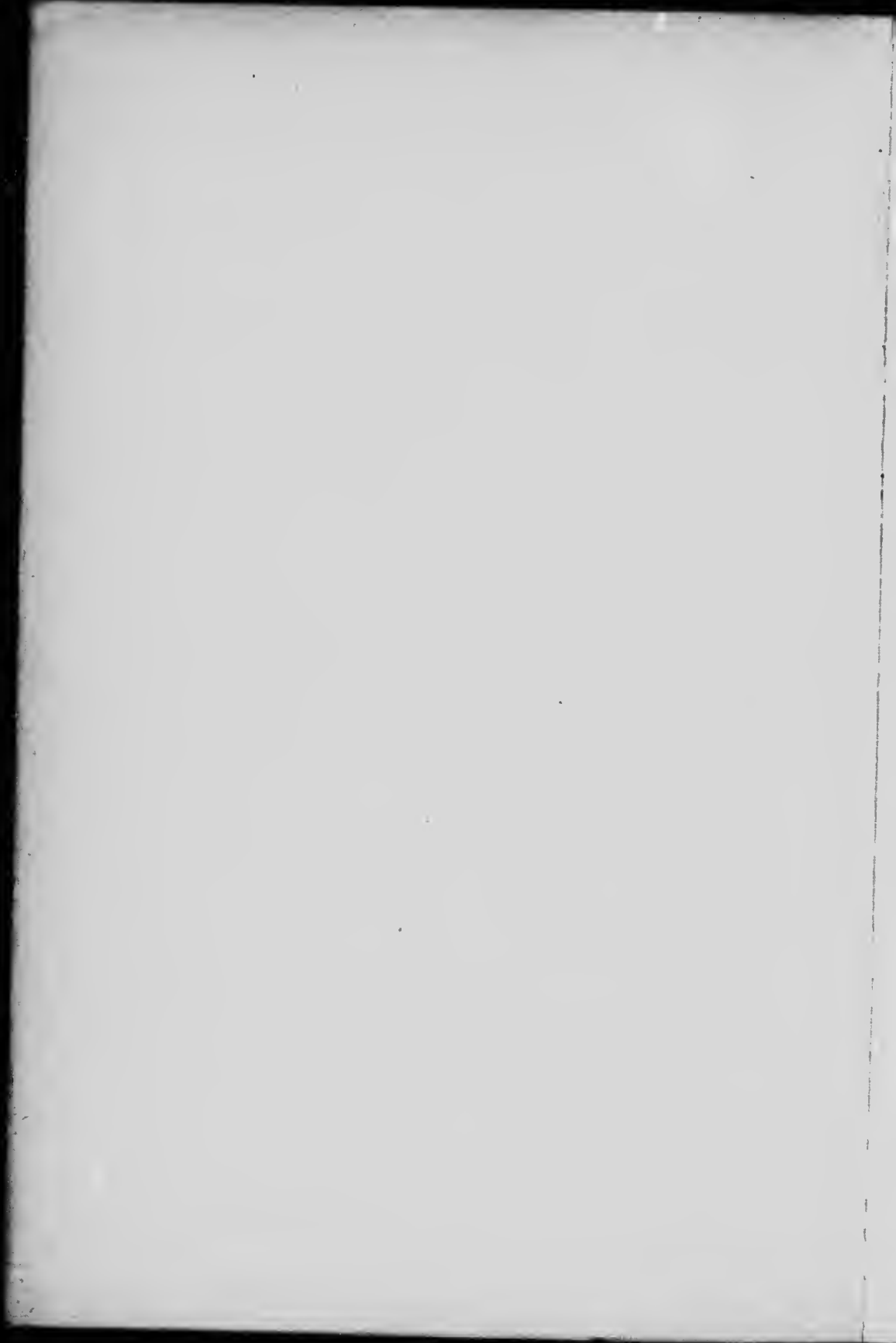
MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax



THE ROSE BOOK

BY THE SAME AUTHOR

The Pocket Gardener

The Complete Gardener

The Garden at Home

The Ideal Garden

**Garden Flowers As They
Grow**

**Garden Work for Every
Day**

Gardening Difficulties Solved

Garden Planning and Planting

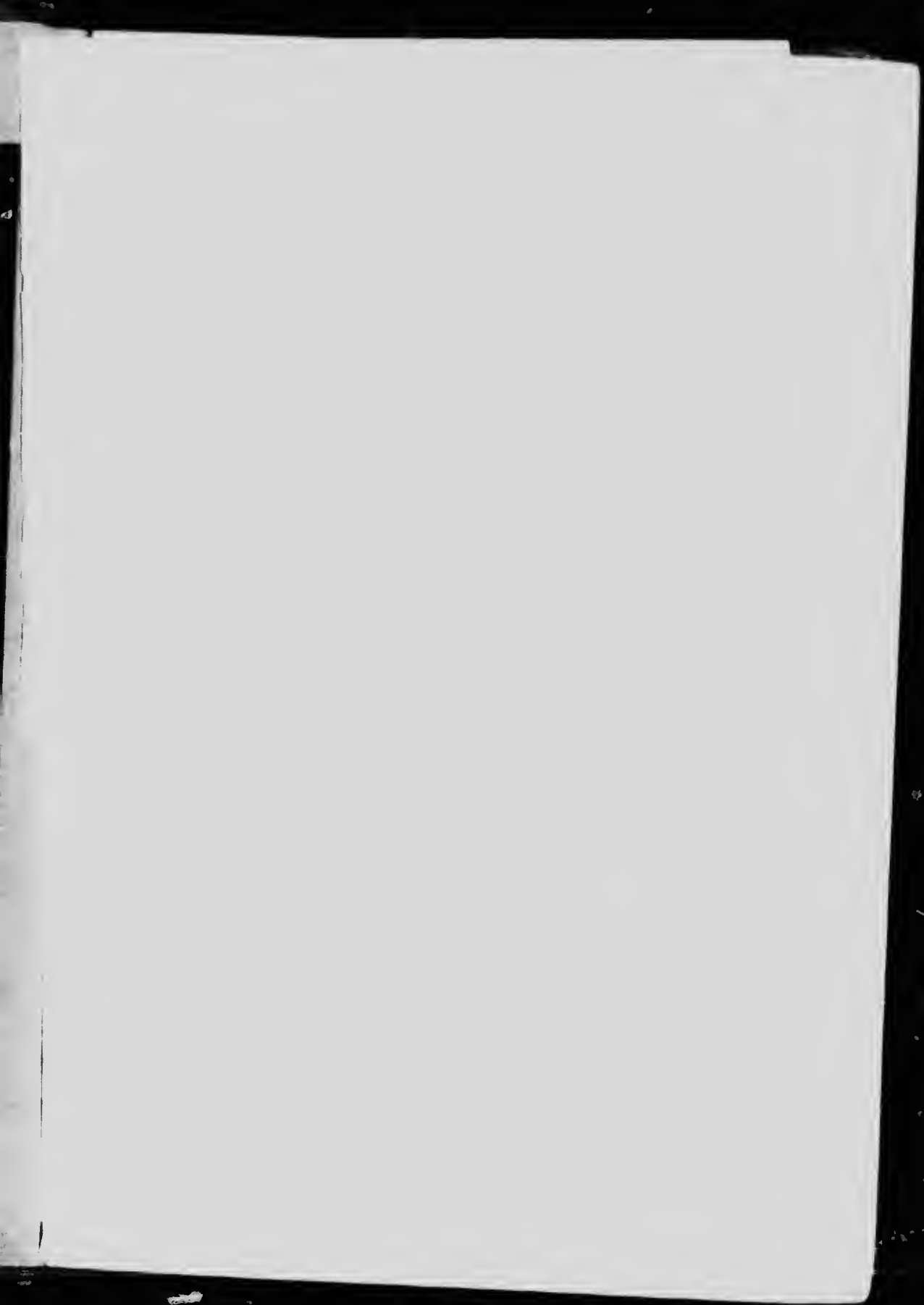
Indoor Gardening

**Sweet Peas and How To
Grow Them**

**Little Gardens: How to Make
the Most of Them**

CASELL & CO., LTD.
LONDON, NEW YORK,
TORONTO & MELBOURNE







ROSE JULIET (Hybrid Brier)



The Rose Book

A Complete Guide for Amateur Rose Growers

By H. H. Thomas

Author of "The Ideal Garden," "The Garden at Home," etc. Editor of "The Gardener"

Assisted by Walter Easlea

Member of Council of the National Rose Society

*Beautifully Illustrated with Eight
direct Colour Photographs by*

H. Essenhig Corke

*and Sixty-four half-
tone Plates*

*Cassell and Company, Limited
London, New York, Toronto and Melbourne*

1914

*First Edition October 1913.
Reprinted January 1914.*

2899

PREFACE

EVERY man is a potential rose grower; therefore, a possible reader of THE ROSE BOOK. It would then be excessive modesty to make an apology (as is common with writers of gardening books) for the appearance of this, the very latest work on roses. The moment is, in fact, opportune, for during recent years varieties have increased at a remarkable rate, even in such numbers as seriously to bewilder the amateur rosarian; new classes have arisen, and methods of cultivation have been perfected. Discriminating guidance is needed by the unlearned in rose-growing who would have his garden full to overflowing with blossom and feel justified in joining in the poet's song:

"Everywhere are roses, roses;
Here a-blow, and there a-bud.
Here in pairs, and there in posies."

THE ROSE BOOK makes a bid for the post of companion-guide, essaying to tell not merely how things are done in the rose garden and when to do them, but also to warm the heart of the amateur with words of encouragement and to urge him ever onward with visions of rose beauty still unattained. First and chiefly, it is designed to assist the real beginner that he may

*

PREFACE

persist in the pursuit of a recreation that has no rival in its power to charm, and while offering illimitable pleasure for the moment, lures its followers with hopes of an even brighter future.

I have been privileged to obtain the assistance of Mr. Walter Easlea, a successful grower and exhibitor of roses, whose experience of the ways of this popular flower is second to none. His contributions add largely to the value of the book.

Mr. H. H. Aitken, M.A., has written the chapter on Rose Diseases and Insect Pests; to him also my acknowledgments are due.

With few exceptions, the half-tone illustrations are from my own photographs. Many of them are of roses grown in a small garden, within a dozen miles of Bow Bells, and given quite ordinary cultivation. They depict such blooms as every reader may hope to grow (indeed, he may easily excel them), and do not profess to show rose blooms as they are displayed in the exhibition tent.

H. H. T.

September, 1913.

CONTENTS

PART I

Roses to Begin With

CHAPTER	PAGE
1. ON BEGINNING WELL	I
2. WICHURAIANA ROSES	5
3. MULTIFLORA ROSES	16
4. HYBRID PERPETUALS	22
5. HYBRID TEAS	32
6. STANDARD ROSES	52
7. ROSES AND OTHER FLOWERS	62
8. BIG ROSE BUSHES	69

PART II

Roses to Proceed With

9. ROSES FOR WALLS AND FENCES	77
10. ROSES FOR ARCHES AND PILLARS	83
11. TEA ROSES	87
12. CHINA ROSES	100
13. MOSS ROSES	103
14. PENZANCE SWEET BRIERS	107
15. PERNETIANA ROSES	110
16. OLD-FASHIONED CLIMBING ROSES	115
17. OLD-WORLD ROSES	118
18. NEW CLASSES OF ROSES	123

CONTENTS

CHAPTER	PAGE
19. ROSE HEDGES	126
20. WILD ROSES OF BRITAIN	130
21. WILD ROSES OF OTHER LANDS	138
22. ROSE GROWING FOR EXHIBITION	151

PART III

Some Very Practical Matters

23. ROSE GARDENS	157
24. SITUATION, SOIL, AND PLANTING	165
25. PRUNING	172
26. HOW ROSES ARE INCREASED : BUDDING, LAYERING, GRAFTING, SEED, CUTTINGS	183
27. ROSE STOCKS	200
28. MANURES FOR ROSES	204
29. DISEASES AND INSECT PESTS	210

PART IV

Rose Growing under Glass

30. ROSES FOR THE GREENHOUSE	225
31. ROSES IN COLD FRAMES	233

PART V

Round the Year in the Rose Garden

PART VI

Lists of Varieties for Various Purposes

LIST OF ILLUSTRATIONS

COLOURED PLATES

ROSE JULIET	<i>Frontispiece</i>
ROSE GEORGE C. WAUD	FACING PAGE 32
THE LYONS ROSE	52
ROSE LADY PIRRIE	62
ROSE DUCHESS OF WELLINGTON	90
ROSE ARTHUR R. GOODWIN	110
ROSE MADAME LEON PAIN	166
ROSE GENERAL MCARTHUR	186

BLACK-AND-WHITE PLATES

A ROSE GARDEN IN THE SUBURBS	FACING PAGE 6
ROSE ALBERIC BARBIER	7
ROSE MADAME ALFRED CARRIERE	10
ROSE WILLIAM ALLEN RICHARDSON	11
ROSE TAUSENDSCHON	16
ROSE BLUSH RAMBLER	17
ROSES ON PILLARS AND CHAINS	20
BLOOMS OF ROSE TRIER	21
ROSE GLOIRE DE CHEDANE GUINOISSEAU	22
ROSE HUGH DICKSON	23
THE THORNLESS ROSE	28

LIST OF ILLUSTRATIONS

	FACING PAGE
ROSE MADAME MÉLANIE SOUPERT	29
ROSE MARGARET	36
ROSE LADY ALICE STANLEY	37
ROSE MRS. G. W. KERSHAW	38
ROSE GEORGE DICKSON	39
ROSE JOSEPH HILL	42
ROSE LADY GREENALL	43
ROSES LIBERTY AND AVOCA	44
ROSE MADAME LEON PAIN	45
ROSE JEANNE PHILIPPE	46
ROSE MRS. AMY HAMMOND	47
ROSE NOELLA NABONNAND	48
ROSE REINE MARIE HENRIETTE	49
A BORDER OF STANDARD ROSES	54
ROSES IN A GARDEN BY THE SEA	55
WEEPING STANDARD OF ROSE LEONTINE GERVAIS	58
ROSE GRACE MOLYNEUX, STANDARD	59
VIOLAS AMONG THE ROSES	66
ROSE FLORA OVER A GARDEN GATEWAY	67
ROSE UNA, A BEAUTIFUL BRIER	70
ROSA POLYANTHA GRANDIFLORA	71
ROSES GLOIRE DE DIJON AND REINE MARIE HENRIETTE	78
ROSE CAPTAIN CHRISTY	79
ARCHES OF ROSES	84
ROSE CLIMBING K. A. VICTORIA	85
ROSE MADAME HOSTE	92
ROSE CLOTH OF GOLD	93
ROSE MRS. HERBERT STEVENS	94
ROSES MADAME ANTOINE MARI AND AMATEUR TEYSSIER	95
THE PINK MONTHLY ROSE	100
A JAR OF GARDEN ROSES	101

LIST OF ILLUSTRATIONS

xi

	FACING PAGE
ROSE MRS. STEWART CLARK	108
ROSE CREPUSCULE	109
THE LYONS ROSE	112
ROSE RAYON D'OR	113
ROSE BLAIRII NO. 2	116
ROSES ON A COTTAGE	117
ROSE ENTENTE CORDIALE	124
ROSE GRUSS AN AACHEN	125
ROSE RUGA	132
ROSE RENEE WILLMART URBAN	133
ROSES AND PINKS	140
ROSE LAMARQUE	141
A BOWL OF GARDEN ROSES	154
A BOX OF PRIZE ROSE BLOOMS	155
ROSE GARDEN AND FLOWER BEDS	158
A GARDEN OF ROSES	159
A ROSE CORNER	160
WHITE PINKS AMONG ROSES	161
ROSE SOUVENIR DE GUSTAVE PRAT	194
ROSE MADAME SECOND WEBER	195
ROSE ANDRE GAMON	206
ROSE MRS. PETER BLAIR	207



THE ROSE BOOK

PART I

Roses to Begin With

CHAPTER I

ON BEGINNING WELL

EVERYONE who writes gardening books is morally bound, I think, to help the beginner; someone is always beginning. There is also a debt to the roses, for some are so much more accommodating than others, and to start with the difficult ones is like taking the wrong turning on setting out for a long journey. How light-heartedly we go forward, the mind full of pleasurable anticipation, eager to discover fresh delights, keen to perceive new points of interest that every bend of the road brings into view. But when it is forced upon us that the way we have taken leads not where our hopes are set, but that each step takes us farther from the goal in mental view, how different it all seems! How long and weary is the way back; how dull, how void of interest the path that seemed so bright, so gay, so full of sunshine!

Above all things, then, let us make sure that the beginner knows the way before he starts, and so, while

saving him such disappointment and disillusion as are preventable, send him along rejoicing in delights that warm the heart of the amateur. The accomplished rosarian may decry them as crude, wrapt, as he is, in fond memories of daintier pleasures, to which, however, he has come through knowledge of those he is apt to depreciate, and, in the light of his accumulated experience, to forget.

How clinging are first impressions! How long remembered! So 'twere shame not to let the beginner win his way to the finer rose glories through those that are more easily attained. To launch him at once into the perplexing labyrinth of intractable Teas and Noisettes and Pernetianas, and those that are notoriously "shy bloomers" were surely a crime, both to the roses and to himself, destructive of his peace of mind, disillusionive of his hopes and aspirations, and ruin—black, headlong disaster—for the roses themselves.

"Each goodly thing is hardest to begin," sang Edmund Spenser; nevertheless, let all who come to worship at the shrine of Queen Rose echo the words of Don Juan, and resolve that "my way is to begin with the beginning." When he has grown grey in the service of the roses, the reader will ever remember his earliest days among them as perhaps the happiest of all; and when, if it ever happens, he comes to a full knowledge of their ways and a solution of their secrets, memories will still arise of those times when the rose days were in front and only the cabbage days behind. Even then, having an acquaintance with all the rose

glories that, since he began, have come into his life, he will, at times, conclude that the roses he began with were, in some ways, the loveliest and most lovable of all, for they gave so much while asking for so little.

The beginner must certainly start with both climbing and bush or dwarf roses; the latter for delight the first summer after planting, with fair, though not full, harvest of blossom; the former to captivate with their lusty or lissom growths, giving promise of an abundant blossoming to come. It would be a great mistake to start with climbing roses alone, for the correct initial treatment is to discourage flowering the first summer. Luckily, the methods that discourage blooming also encourage free growth, and so long as a happy ending to one's anticipations is assured, much pleasure is derivable from watching the development, often extraordinarily rapid, of the lusty young shoots of a climbing rose. How gingerly the crimsoned shoot starts life, how tender yet how strong it is, how easily damaged yet possessed of what remarkable possibilities. In the warm, moist days of June one can almost see the rose shoots grow; at least, one can measure their daily progress by inches on a two-foot rule. So far as the beginner is concerned, there are roses *and* roses that climb. Some will blossom forth in bewildering beauty almost in spite of what an unskilled grower may do; others one may grow for years and still count the annual harvest of blossom on the fingers of both hands. I do not write in exaggerated phrase, for have

I not had the exquisite, the tantalising golden yellow Madame Hector Leuilliot, thronging with good stout growth a five-foot fence for now three years, with scarce ever a sight of her incomparable beauty?

It behoves the beginner to choose circumspectly and with care and caution, or it is possible that his garden may, in very truth, need the rose-coloured spectacles of romance and hope to enable him to persist in the pursuit of rose beauty, that is only tantalising and elusive when sought misguidedly, though easily attained when the pursuit is well planned. There is at least one class of roses that could scarcely disappoint the veriest beginner, and to this attention shall first be directed.

CHAPTER II

THE WICHURAIANA ROSES

THE beginner would most probably feel inclined to turn the page on catching sight of "wichuraiana," did I not hasten, with all convenient speed, to reassure him. He is easily scared, and were I of a mind to alienate his sympathies (which Heaven forbend!), it were soon accomplished by taking full advantage of the gardening jargon, which is replete with the most extraordinary names, often mongrel in character and obscure in origin. With these, however, "familiarity breeds contempt," and it is only at first sight that they offend. The names soon lose their strangeness, and come readily even from the learner's lips when he can picture the plants that possess them. "Wichuraiana" will trouble the reader no longer when he knows it as a wonderful little wild rose from China and Japan, with long, slender, creeping growths, and bearing small, pale, and single blossoms. Not in itself very much to make a fuss about, perhaps, yet there is charm even in the original wild type or species. Not the least of its attractions are the glistening, green leaves that persist long after those of most roses have fallen and made harvest for the garden broom; it is remarkably free, too, of the fragrant flowers that spangle the leafy stems. It was discovered

by the botanist Herr Wichur, who accompanied a Prussian expedition to China in 1859-61.

Rosa wichuraiana, to give its full style and title, is a delightful rose for planting on top of a bank, trailing over tree stumps, or for any such odd use in the less formal parts of the garden. Of its intrinsic merits as a garden flower there is little further to say, but as chief factor in the production of an entirely new race of roses that has revolutionised garden decoration—why, that is another story, and one that might, if time allowed and the printer were willing, take long to tell. But I have, I hope, sufficiently apologised for *wichuraiana*, and, after all, its sponsors, and not the rose, were responsible for the name.

Apropos of scaring the beginner. I once heard a landscape gardener give a lecture on "Garden Design" that was obviously very much above the heads of his audience. He had discoursed freely on the Natural and the Formal school of gardening, but his audience was thinning. Finally, as the last few were leaving, in a despairing appeal to their understanding or, at least, their sympathy, he explained that if they made the path from their front door to the garden gate lead straight and direct from one to the other, they were of the Formal school of gardening; if, however, the path reached the gate only after winding round a shrubbery, they were of the Natural school! So, in case my meaning is still obscure, and *wichuraiana* creates distrust, I would say to the beginner that if he knows the ubiquitous Dorothy Perkins, which, of course, he does, then also



LOOKING ACROSS A ROSE GARDEN IN THE SUBURBS. ROSE PRINCE
DE BULGARIE IN THE FOREGROUND



RAMBLING ROSE ALBERIC BARBIER (WICHURAIANA). A SPLENDID VARIETY WITH YELLOW
BUDS AND PALER BLOSSOMS

he is acquainted with the wichuraiana class of rose, of which she is the archtype.

In growth and leafage all wichuraianas are more or less like Dorothy Perkins, though naturally they differ in size, colour, and form of blossom. But they all have this feature in common, they are the easiest of roses to grow; they will thrive in any soil that is soil, even if it be light and gravelly, though they will grow far more lustily in better ground. I need say little about planting them, except to emphasise the advice given in a later chapter to plant in late October or November; this is the first thing the beginner should learn. He has only to plant one rose in November and another in March, and to note the difference in results at the end of the summer, to be for ever assured of the wisdom of early autumn planting. Of course, one may plant roses any time between the end of October and the middle of April (I have planted them at all times between these dates), but it is not very wide of the truth to say that for every week that elapses after the end of November, there will be a good rose the less the ensuing summer. Following this reasoning to its logical conclusion, it follows that from an April planting there will be no good roses at all the first summer, so that it need not be taken quite literally, but merely as strongly discouraging late planting! I do not wish to disillusion the beginner, but it is as well that he should know the best and the worst. I have done much unorthodox gardening. I have planted roses in April, spring-flowering bulbs in January, and, by one of those

THE ROSE BOOK

miracles that are always happening somewhere to some gardener, fair results have followed. A miracle may happen to you, but then, it may not; so it is not wise to be too trustful. If you plant in April, nothing but a miracle can save the face of your rose garden the first summer; but how delightfully easy to be mundane in your aspirations, and—plant in November! You are then quite independent of miracles, and may safely trust the roses to give a good account of themselves, and, after all, is it not wisely said that "Heaven helps those who help themselves"? So much for the date of planting. As to the details of spreading the roots, planting at the proper depth, making the soil firm, and so on, are they not fully described in a later chapter that affects only to deal with such prosaic details?

I want to convince the reader that in beginning with varieties of *wichuraiana*, he begins with roses that are in some ways the best of all. There are gardeners and garden writers who decry them because they give of their best in one glorious outburst of colour in mid-summer, but how immeasurably finer are they in display than anything else in the garden at the time! They are peerless, head and shoulders, both metaphorically and actually, above all other roses, eclipsing them totally in splendour and magnificence of blossom, in sheer profusion of flower cascades. And because they have but leaves to show after three or four weeks of the most dazzling display, shall we describe them as wanting in charm and garden value? Ought we not rather then

THE WICHURAIANA ROSES

9

to emphasise the value of the leaves, for those of many wichuraiana roses persist almost throughout the winter?

Having roused in the tyro's mind visions of the most exquisite rose beauty, I have to dash his hopes to the ground—for one season only. I ask the beginner, for the sake of his future peace of mind and the prospects of his garden of roses, to cut down, to within six inches of the ground, all the stems of every wichuraiana (or other climbing rose) the third week in March following planting. "Hope deferred maketh the heart sick" is a very old proverb, and, like most others that have weathered the years, a very true one. It applies with especial appropriateness to the amateur gardener, who, like amateurs of all other crafts, is impatient and anxious for results. It is very tactless to advise him that *next year* will see the full fruition of his schemes of planning and planting. "Always am I looking forward to *next year* when this shall be well rooted, that well grown, or something else established," he exclaims, with the despair of the neophyte who knows not how to wait; if he disbelieves that Rome was built in a day, at least, he thinks that a garden will bud and blossom in perfect beauty after the first summer shower. After this moralising expression of sympathy, I still tell him to cut off not only the heads, but the legs also of the (possibly) sturdy, healthy shoots, that seemingly need only to be left alone for the buds to grow to leaf, and leaf make nest for blossom! "Well! well!" you exclaim, and I admit it all sounds very sad. Nevertheless, I insist

that the pill be swallowed, but—I have a lump of sugar to take the nasty taste away.

The beginner must not plant climbing roses only: he must also fill the beds and border with bush or dwarf roses. While the former are making lusty stems for next year's blossoming, the latter will burst, not only to leaf, but to bewitching buds and wide-open flowers. This severe pruning is a lot to ask, it is true, but even if the roses are not pruned at all, the first season's show of blossom will be disappointing. And two big hopes frustrated in one year must surely make for despair! How far better to suffer the disappointment occasioned by an absence of bloom and experience the compensating pleasure of vigorous growth, which brings with it the assurance of a future flower show.

There is thus nothing intricate about the first pruning of wichuraianas. It is the work of five minutes to cut down the stems, but it takes much longer to make up one's mind that this is the right and proper thing to do. There are gardeners, I know, who have such faith in the accommodating nature of wichuraiana roses as to leave them practically unpruned after planting, merely cutting out those shoots that are obviously useless—those, for instance, that have shrivelled and shrunk in sympathy with the root disturbance. I concede that if one may follow this practice at all it is with the wichuraianas. I am even free to confess that if the trees were planted early in autumn, and are sprouting freely in March, and are well suited as to soil, the practice scarcely needs any apology. But, after all, the material



ROSE MADAME ALFRED CARRIERE (NOISETTE) ON COTTAGE
CHIMNEY



ROSE WILLIAM ALLEN RICHARDSON ON A WEST COUNTRY
COTTAGE

question is, "What does one gain by it?" And my own experience teaches me that the answer is, "Nothing except a half-hearted display of flowers the first summer," which is never sufficient compensation for a deficiency of fresh, vigorous stems.

The pruning in subsequent years is rather more complex, though it is really not difficult. When one is confronted by a vigorous plant with numerous stems of varying ages, many of them bearing innumerable secondary shoots, the beginner has, I admit, more cause for alarm. But a little observation will show how needless it all is. He has only to realise that the biggest crop of the finest flowers is borne by the stems formed in the previous year, and that all older stems flower less freely and bear poorer blossom bunches. Obviously, then, the aim in view is to possess a tree with as many one-year-old stems as possible. If the rose has been well planted in good soil and hard pruned at first, there will be no lack of fresh, vigorous stems each summer, and the pruner's chief object should be to cut out as many of the older stems as may be necessary to make room for the new ones. The pruning of this type of rose is carried out at two different seasons—late in March (or early in April in northern gardens) and in August, as soon as the blossoming season is past. The chief pruning is carried out in August.

To make matters thoroughly clear, let us trace briefly the career of the rose cut down to within six inches of the ground in the March following planting. During the summer, a number of strong growths will

appear, say, six or eight; they are tied in as they progress, and are not pruned at all, except that in March, if the tips are soft or very thin, they are slightly shortened. During the second summer these stems will bloom and fresh ones will grow. In August it may be necessary to cut out a few of those that have blossomed, to allow room for tying in the new ones. In March of the next year all side growths (on which flowers were produced the previous summer) are cut back to within three or four buds of their base, and the soft, thin tips of last year's stems (which have not yet flowered) are cut off. In August the tree will consist of fresh stems (which must be tied in), stems that have flowered for the first time, and stems that have flowered for the second time. It will, doubtless, be impossible to accommodate them all, and the oldest of the stems (those that have twice flowered) must first be removed. There should be no unnecessary sacrifice of old stems, for while these do not flower so freely as younger ones, they give quite a good show of bloom.

Most *wichuraianas* send up annually fresh green stems from the ground level. Some, however, develop a woody stem, which gives rise to new shoots some distance from the ground. Alberic Barbier and René André are two notable instances. In such cases the obvious thing to do when there is danger of the tree becoming crowded with stems, is to cut back some of the oldest to the point at which a strong new shoot has developed.

THE WICHURAIANA ROSES

13

A SELECTION OF VARIETIES

(The approximate date of flowering of each variety is given.)

Alberic Barbier.—One of the very best. Growth is most vigorous, the glossy green leaves are attractive, while the small, well-formed, yellow buds are very delightful, and are produced in profusion. The open flowers are creamy-white. This variety generally forms pronounced woody stems, which many wichuraiana roses do not, so that old shoots cannot be cut out so freely. June 10 and in autumn.

Aviateur Blériot.—A charming rose with orange-yellow buds and paler flowers. Very pretty. June 10.

Coquina.—This is a single-flowered variety with pink, rose-tipped blossoms; it blooms at the same time as *Hiawatha*, and associates well with that rose. July 15.

Débutante.—A dainty rose with charming pink double flowers, which are produced to some extent in autumn also. July 1.

Désire Bergera.—Worth growing for its intense colouring, which is of shades of copper, pink, and red. June 20.

Dorothy Perkins.—The most popular of all wichuraiana roses, bearing large clusters of big, double, rich pink blossoms. Very vigorous. July 15.

Elisa Robichon.—A charming variety, salmon, buff, and pale yellow. Makes an ideal lawn shrub. June 15.

Ethel.—A showy variety with semi-double, dainty, flesh-pink blossom. Quite one of the best. July 10.

Excelsa.—Best described as a red-flowered Dorothy Perkins. Vigorous and altogether satisfactory. July 10.

François Foucard.—Of distinct lemon-yellow colouring. Blooms to some extent in autumn. June 15.

Gardenia.—A charming rose, with glistening foliage, pale-yellow buds, and almost white flowers. Sweet-scented. Alberic Barbier is, I think, to be preferred. June 10.

Hiawatha.—Quite one of the best of the wichuraianas. The single crimson blooms, with prominent bunch of yellow stamens for centre, are very beautiful. It remains in flower longer than most roses of this class. July 15.

Joseph Billiard.—Very beautiful, having single blooms of crimson, rose, and yellow shades. June 15.

Joseph Liger.—A promising novelty, with yellow flowers tinged with pink. June 20.

Lady Gay.—Very similar to Dorothy Perkins; the blooms perhaps rather deeper pink. July 10.

Lady diva.—An attractive pale-pink "sport" from Dorothy Perkins. Christian Curle and Dorothy Dennison are very similar. July 15.

Léontine Gervais.—A rose of striking colour, salmon and yellow. Fragrant. One of the best. June 20.

Minnehaha.—A vigorous variety, bearing large clusters of deep rose-coloured double blossoms. July 15.

Newport Fairy.—A dainty single rose, pink with white centre, like a pink-flowered Hiawatha. July 10.

Paul Transon.—The buds of this variety are very

THE WICHURAIANA ROSES

15

beautiful; shades of apricot and rose, and they are tea-scented. June 15.

Réné André.—One of the most delightful of all. The single flowers are exquisitely coloured—shades of yellow and orange-red, fragrant. June 18.

Robert Craig.—A dainty rose of beautiful shades; the buds are perhaps best described as apricot, the open flowers as fawn-coloured. June 25.

Schneeball.—One of the best white varieties, bearing snow-white flowers in large clusters. July 10.

Shower of Gold.—An excellent novelty; the buds are yellow, somewhat resembling those of *Alistér Stella Gray*. June 20.

Sodenia.—A new bright-red double-flowered variety that promises well. July 10.

Sylvia.—Another novelty, with pale-yellow buds and white flowers. It blooms in autumn and is fragrant. June 20.

White Dorothy Perkins.—Similar to *Dorothy Perkins*, except in the colour of the flowers, which are white, tinged with blush. July 15.

CHAPTER III

THE MULTIFLORA ROSES

EVERYONE knows the Crimson Rambler Rose, therefore every one can form an excellent idea of the characteristic points of the modern, highly-developed varieties of *Rosa multiflora*. They are distinguished by vigorous growths that are much thicker and less pliant than those of *wichuraiana* roses; generally, they do not attain so great a length, though this depends very largely upon the kind of soil in which they are grown. The leaves are large and bold, and the leaflets bigger than those of the Dorothy Perkins type, but while the foliage of many of the latter persists until midwinter, that of the multiflora roses falls in autumn. The blossoms are produced in big bunches, and in the modern varieties are distinguished by a wide range of colour. There are single, semi-double, and double forms. The flowers do not, as a rule, last so long in full beauty as those of the *wichuraianas*, but they make a gorgeous display for some weeks. While, on established plants, there is no lack each spring of fresh growths from the base, these are not so profusely produced as by the Dorothy Perkins type, neither do the old stems flower so satisfactorily.

I am afraid I am making a somewhat apologetic introduction of the multiflora roses, though there is

before
istic
Rosa
with
e of
reat
kind
and
both
tter
falls
hes,
wide
and
so
but
mile,
y of
sely
do
etic
is



ROSE USENSCHON (MULTIFLORA), RICH ROSE PINK, AN
EXCELLENT PILLAR ROSE



CLIMBING ROSE BLUSH RAMBLER (MULTIFLORA). A VIGOROUS VARIETY BEARING BUNCHES OF APPLE-BLOSSOM-LIKE FLOWERS

really no need to do so. They are only less thoroughly satisfactory than the wichuraianas, but they are just as easy to grow. The methods of planting and pruning detailed for the other type apply also to this class, but greater care is called for, since improper treatment is likely to do more harm, as the recuperative powers of multiflora varieties, if as great, are not so readily responsive.

The wild *Rosa multiflora*, native of China, makes big loose bushes, bearing, in early summer, large bunches of white blackberry-like blossoms, and itself is worth growing in the shrubbery or wild garden, but in the rose garden proper, or where space is restricted, it is not, of course, to be thought of. As with the wichuraianas, the best blossoms are produced by the stems of the previous year, since they come on shoots that issue from the main stem itself. On older stems, those of two or three years old, the flowers are borne on the side shoots that grew out of the one-year-old stem. Consequently, the blossom bunches are smaller. It is the old, old tale—the more one-year old stems there are in the tree, the bigger and the finer will be the display of bloom. If the plants are cut to within four or five inches of the ground in the March following planting, little or no further pruning will be necessary, either that year or the next. All fresh stems should be tied to their supports as they progress. In March (twelve months after the hard pruning) the tips of the stems should be cut off, if they are soft or have been damaged by the cold. By August a second crop of stems will have grown,
c

and if there is not room for both the new and the old, one or two of the latter must be cut out at the base. But never cut out even an old stem, unless there is a fresh one to tie into its place, for the flower display from an old stem is better than none at all. The next spring (two years from the hard pruning) there will be the side shoots to deal with. These are pruned to within two or three buds of the base, so that the resulting growths and their blossom may be as strong as possible.

Amateurs are often perplexed by thick growths that appear late in the summer at the base of the plants, and, owing to their tardy beginning, only reach a height of a foot or two. The best plan is to cut them out. Most probably they will shrivel as the tree begins to grow freely, owing to damage by cold as a result of their having failed to "ripen," that is, become hard and firm. The multiflora roses are essentially roses for the open garden, for arch, arbour, fence, trellis, or pergola, but not for walls, especially hot, sunny walls. There growth becomes stunted, the foliage is attacked by red spider, and the plants generally present a woebegone appearance in the course of a season or two. The multifloras must have fresh air. Leave the walls for those that need them, and will grow properly nowhere else.

It sometimes happens that fresh shoots make their appearance on the old stems as well as from the base of the tree. In such a case the old stem must be shortened only to the new shoot; the time to do this is in late

THE MULTIFLORA ROSES

19

July or August, when the chief pruning of climbing roses is properly carried out.

A SELECTION OF VARIETIES

(The approximate date of flowering is given in each case.)

American Pillar.—A vigorous rose, forming stout, prickly stems of great length, and in late June bearing beautiful large, single blossoms, rose coloured, with paler centre. The foliage is bold, attractive and persistent. This is the finest single-flowered climber.

Blush Rambler.—A very vigorous and charming rose with clusters of apple-blossom-like flowers; pale-rose, with white centre. July 1.

Crimson Rambler.—One of the most widely-grown of climbing roses. The bunches of intense red flowers make a brilliant display while in full beauty, and show splendidly against the rich green foliage, but as they fade the colouring is unattractive. July 6.

Electra.—The flowers of this variety are of creamy-yellow colouring, but they do not last long. It can scarcely be said to be worth growing nowadays. June 30.

Euphrosyne.—An excellent rose for the informal rose garden or shrubbery. The flowers are pink and freely produced in clusters. June 25.

Flower of Fairfield.—Very similar to *Crimson Rambler*, but having the great advantage of flowering in autumn. It is commonly known as *Perpetual-flowering Crimson Rambler*. Very liable to mildew. July 6.

Goldfinch.—A not very vigorous variety, with yellow buds, and almost white flowers. June 15.

THE ROSE BOOK

Hélène.—A beautiful climber, with rather large single or semi-double flowers of violet-pink shade. June 20.

Leuchtstern.—A striking single variety, bearing bunches of bright rose-coloured flowers, with white centre. Most suitable for growing as a pillar rose. June 10.

Mrs. F. W. Flight.—A very showy variety, rose and white. One of the best. July 10.

Philadelphia Rambler.—Resembles Crimson Rambler, except that the flowers are of deeper red. This rose is often disappointing, for the flowers frequently have a green centre. June 25.

Rubin.—Quite one of the most delightful of the multiflora roses. The flowers are of an unusual and distinct shade of rose-red, while the stems and leaves have also a reddish tinge. June 25.

Tausendschön.—A splendid rose, most suitable for growing on a pole or pillar, as it is not so luxuriant as some other multifloras. The flowers are large, of soft rose colouring, and are very freely produced. A plant in bloom is remarkably showy. June 25.

Tea Rambler.—Another indispensable variety, one of the earliest of this class to bloom. The flowers are of exquisite colouring, copper and pink, and as they become fully open, are flushed with salmon and pink. The leaves are unusually handsome, and persist on the stems until midwinter. June 15.

Trier.—Different authorities class this rose variously, but we may conveniently consider it here. It is a variety that everyone should grow, and is most suitable for a

single
D.
aring
white
rose.

and

bler,
e is
e a

ulti-
nct
also

for
as
oft
nt

of
of
ne
es
til

y,
y
a



CLIMBING ROSES ON PILLARS AND CHAINS



A BASKET OF BLOOM FROM ROSE TRIER, A CLIMBING VARIETY THAT BLOSSOMS THROUGHOUT SUMMER AND AUTUMN

THE MULTIFLORA ROSES

21

pillar rose or for growing as a free bush. It reaches a height of about five feet, has rather pale-green foliage and bunches of single white bloom. But its great charm lies in its blossoming throughout the summer and autumn. It is the most perpetual of climbing roses. June 25.

Veilchenblau.—This variety was heralded with a great flourish of trumpets as the long-looked-for Blue Rambler. It is, unfortunately, not blue at all; the colouring of the flowers is a mixture of slate and purple, with perhaps a tinge of blue. It may possibly be the forerunner of a Blue Rambler. June 25.

Wallflower.—A very showy rose, suitable for covering a pole or pillar. The flowers are large and of bright rose colouring. June 25.

Waltham Bride.—An attractive variety, having bunches of white fragrant flowers. June 10.

Wedding Bells.—A rose somewhat similar to Tausendschön, with loose clusters of rather small, bright rose-coloured blooms. June 20.

CHAPTER IV

HYBRID PERPETUALS

So far as the beginner is concerned, we take leave of climbing roses. If he considers that his capabilities have been underrated, he will doubtless turn to the other chapters that deal with further climbing roses, which, at least, are not so patient under wrong treatment as those already referred to. The first of the great groups of bush or dwarf roses to mention is that known as Hybrid Perpetual. The signification of the title is apparent, the varieties composing this group are of cross-bred origin, and they are (more or less) perpetual blooming. It is, however, an unfortunate title in the present day, for they are, as a class, far less persistent flowering than others. But if we remember that until seventy or eighty years ago all the roses grown were summer blooming only, we can excuse the delight of rosarians at the advent of roses that blossomed again after the summer show, and can well understand that they should have been classed as Perpetual. Individual varieties of the Hybrid Perpetual Rose vary considerably in manner and in vigour of growth, but one can, at least, write definitely on one point—they are very hardy, and for this reason alone some of the best should find a home in the beginner's garden. Most of them



A FINE CRIMSON ROSE. GLOIRE DE CHEDANE GUINOISSEAU (H.P.)



ROSE HUGH DICKSON (H.P.), ONE OF THE FINEST OF ALL RED
ROSES

grow strongly and bear large flowers on strong stems. The blooms are generally self-coloured (that is of one distinct colour), and characterised by clear and often intense shades. The most fragrant and the best dark crimson roses are still found among the Hybrid Perpetuals. Because they are hardy, thrifty, and produce big blooms (often of splendid form) that are of distinct colouring and generally fragrant, a first selection ought to include some of them, but not too many, because none can be classed as "good autumnals," although certain varieties produce a second display of flowers. It is not, however, for their autumn bloom that we grow Hybrid Perpetuals nowadays—we grow Teas and Hybrid Teas with that object in view—but for their intensely rich colouring and delicious rose fragrance.

I know, from inquiries that have reached me, the difficulty that beginners find in appreciating the difference between the various classes of roses, but this usually vanishes when they have grown roses for a season or two, and have compared plants of the different classes. Even if they are not always able to discover the distinguishing features, they may take comfort in the fact that skilled rosarians are sometimes equally puzzled. During the past ten years, cross-breeding has been carried out on an extensive scale, and some modern varieties have characteristics so ill defined that they have been placed first in one group then in another. Even the old favourite, La France, when first it appeared, in 1867, was classed as a Hybrid Perpetual; now, it is catalogued as a Hybrid Tea. Conversely, there are now

roses classed as Hybrid Teas (and, therefore, to be expected to bloom in autumn) that never show a flower after July. These, however, are exceptions, and the various classes still have more or less definite characteristics. If you see a vigorous, stiff-stemmed dwarf rose, bearing big flowers, red, crimson, pink, or white, on sturdy stems, you may be certain it is a Hybrid Perpetual.

Like all roses, the Hybrid Perpetuals enjoy a good loamy soil, but they will thrive in the stiff, clayey ground that the rose grower in suburban gardens so often has to deal with, providing that it is broken up well before planting. If some of your roses *must* go in a semi-shady place, the Hybrid Perpetuals are far more likely to succeed there than any other kind of bush rose, though they will thrive much better in the sunshine. The most vigorous of the Hybrid Perpetuals will, in the course of a few seasons, develop into big bushes that are the joy of all who love that somewhat indefinite possession, an old-fashioned garden. Though the blossoms may lack quality as defined by the standard of the exhibition tent, the profusion with which they are produced makes full amends. Generally speaking, to plant roses in the mixed border of hardy flowers is to offend against the canons of rose growing, but I think one may do this to the extent of growing a few of the vigorous Hybrid Perpetuals among the old-world hardy flowers. Such varieties as Frau Karl Druschki, Hugh Dickson, Ulrich Brunner, General Jacqueminot, and Mrs. John Laing are among the best for the mixed border. They

should be placed somewhere near the front among the moderately vigorous plants. Pruning must be severe in the March following planting, each shoot being cut to within three or four buds of the base. Then the production of strong stems is assured.

By proper treatment, it is easy to encourage these vigorous roses to develop into really remarkable specimens ; this is accomplished by pegging down the growths in March instead of cutting them back, as in orthodox pruning. Any shoot that is not less than half an inch thick may be pegged down. The pegging down is accomplished by attaching one end of a piece of strong string to the top of the shoot, bending the latter down until it reaches almost or quite to the ground, and there securing it to a peg or wire pin. By adopting this plan the harvest of blossom is increased to a remarkable extent, practically every bud the full length of the shoot will produce blossom. It is a plan strongly to be recommended to those who grow for garden display.

These vigorous roses are admirably suited for planting in a border at the foot of a fence, preferably facing south or west, although one facing east will do. If, when the growths are strong enough and long enough, they are bent over, in semi-circular fashion, and attached, some to pegs in the ground, others to nails in the fence, both border and fence are smothered in leaf and blossom. I have a few plants of the variety Hugh Dickson that, in the course of two or three years, have grown into magnificent bushes, with strong growths eight feet

long, that fill the border and cover the fence at the back of it. When in full bloom in July they are a glorious sight; Hugh Dickson has great crimson rounded blooms of exquisite fragrance. When, in a year or two, the plants possess stems as thick as one's first finger, the blooms are produced, not singly, but in bunches of even five or six from each bud. I have counted one hundred and fifty perfect flowers on one plant of Hugh Dickson three years after planting.

The pruning of Hybrid Perpetuals, as, indeed, of all bush or dwarf roses, can only be carried out correctly by treating each plant on its merits, but very convenient general rules can be formulated. We may class them as of very vigorous, vigorous, and moderate growth. The very vigorous sorts should be pegged down, as described. Typical varieties suitable for this treatment are Frau Karl Druschki, Hugh Dickson, Clio, General Jacqueminot, Margaret Dickson, Madame Victor Verdier, Maharajah, and Paul Neyron. They also form excellent pillar roses if planted against strong stakes some six or seven feet high, and lightly pruned.

The vigorous varieties represented by Captain Hayward, Baroness Rothschild, Ulrich Brunner, Duchess of Bedford, Duke of Edinburgh, Dupuy Jamain, and Mrs. John Laing, may be allowed either to grow into bushes or they may be pruned hard each March. It all depends upon whether the grower wants plenty of blooms of moderate quality, or fewer blooms of good quality. To obtain the latter, the shoots may be shortened to lengths varying from eight inches for the most vigorous to

three inches for the weakest, all very thin and weak shoots being cut out. But even this pruning, severe though it is, will not produce blooms capable of winning prizes in the show tent; beginners who have this end in view should turn to the chapter on "Rose Growing for Exhibition." If the garden owner delights in big plants that bear blooms in profusion, then he should cut off about one-third of each of the stems. It is a mistake to leave them longer than this; it is true that by doing so a big bush will be obtained all the more quickly, but alas! it will have very bare legs and, like the school-boy growing out of his trousers, so will the rose grow out of its leaves. And a bush that is leafy and full of flowers at the top, with stems bare at the base, is not good enough, even for a beginner. There is no reason why one should not adopt a modified form of pegging down with the vigorous sorts, whereby a similar result is obtained, without such sacrifice of space. This is accomplished by bending down some of the strongest shoots, and tying their tips to the stem of the plant. The effect is ugly, undoubtedly, for a few weeks, but leafy stems soon hide all defects, and the enhanced harvest of blossom puts an end to regrets.

The varieties of moderate growth represented by A. K. Williams, Louis Van Houtte, Victor Hugo, and Fisher Holmes need hard pruning; each shoot should be shortened to within about three buds of the base, otherwise the shoots will be very weak, and bear poor flowers. Only by planting in rich soil and pruning hard are these varieties seen at their best.

A SELECTION OF VARIETIES

(Unless otherwise mentioned, these give few blooms or none in autumn.)

Abel Carrière.—One of the darkest of roses; the blooms are large, well formed, and of intense crimson colouring. It is not recommended as a reliable variety for the garden.

Alfred K. Williams.—A perfect bloom, of bright red colour, but the growth is weak. Indispensable to exhibitors, but of little value for garden display.

Captain Hayward.—The flowers, which are none too full, are of scarlet-crimson shade and fragrant. An easy rose to grow, and one that gives a few blooms in autumn.

Charles Lefebvre.—A rose of good form and splendid colouring, bright crimson, with darker centre. Usually grows well.

Clio.—A very vigorous variety; the shoots are so strong that they should be pegged down instead of being cut back at pruning time. The flowers, which are of flesh-pink colouring, come in thick clusters, but they are not very attractive.

Commandant Félix Faure.—A rose of intense red shade, tinged with black. Most attractive. Growth is vigorous.

Duke of Edinburgh.—A splendid bright-red rose, of perfect form. A few blooms may be expected in autumn. Easy to grow.



THE THORNLESS ROSE, ZEPHERINE DROUHIN (BOURBON) ON A FENCE FACING EAST.
THE BRIGHT ROSE PINK BLOOMS ARE FRAGRANT



ROSE MADAME MÉLANIE SOUPERT (H.T.). A CHARMING FLOWER.
PALE YELLOW AND PEACH COLOUR

Dupuy Jamain.—A vigorous rose with big cherry-red blooms, which are produced fairly freely in autumn.

Fisher Holmes.—Quite one of the best of the Hybrid Perpetuals. The crimson blooms are well formed. This variety flowers again in autumn. Seems to thrive best as a standard. In bush form growth is often poor.

Frau Karl Druschki.—Still the best white rose. The blooms are perfectly formed and pure white. Flowers are produced again in late summer and autumn. Growth is vigorous, and the shoots should be pegged down.

General Jacqueminot.—A very old rose, but still worth growing. The large, well-formed blooms are of bright crimson.

Gloire de Chédane Guinoisseau.—A comparatively new rose of fine form, and often seen at exhibitions. Growth is fairly vigorous, but the blooms are not freely produced. The colour is bright red.

Horace Vernet.—A perfect exhibition variety, and indispensable to those who grow for show; the colour is brilliant red with darker shading. Not recommended for garden display.

Hugh Dickson.—The finest of all the Hybrid Perpetuals, and a rose that should be in every garden in the country. It grows very vigorously, and the shoots need pegging down or training along a fence. The blooms are large, of good form, and of rich red or bright crimson colour. They are produced in autumn to some extent.

Louis Van Houtte.—This is worth growing on account of its intense maroon-crimson colour, which is most vivid. Complaint is often made of its weak growth, but with me

it is satisfactory in this respect. A few blooms may be expected in autumn.

Madame Victor Verdier.—An excellent old rose, strong growing, and bearing its light crimson flowers freely in summer.

Margaret Dickson.—A very vigorous variety, with large, rather flat, blush-white flowers. Suited to pegging down, or may be grown as a big bush. It seems to behave very differently in widely separated localities (as, indeed, many roses do). I have never obtained a bloom from Margaret Dickson after July, but a correspondent in County Kerry says it blooms with him until Christmas.

Mrs. John Laing.—An excellent rose, with characteristic upright shoots, and beautiful big, clear pink blooms which are produced more or less in autumn as well as in July. A rose that all should grow.

Mrs. R. G. Sharman Crawford.—If one could eradicate the tendency of this variety to attacks of mildew, it would be invaluable, for its distinct rose-pink flowers are freely produced, and come in autumn also to some extent.

Prince Camille de Rohan.—To be recommended to those who are fond of the very dark, maroon-crimson roses. It is, however, of weak growth, and useless for garden display; often better as a standard.

Suzanne Marie Rodocanachi.—The name of this fine old rose must militate against its popularity, but it is worth including even in a limited collection of Hybrid Perpetuals. The flowers are soft rose, large, and of good form, and the plant is vigorous.

HYBRID PERPETUALS

31

Ulrich Brunner.—This is one of the biggest of all roses, and the plants grow strongly. The colouring of the flowers is cherry-red. A few blooms make their appearance in autumn.

Victor Hugo.—A great favourite with many rosarians on account of its brilliant crimson-scarlet blooms of perfect form, which always compel admiration. Growth is rather weak, and a fine display is not to be expected.

CHAPTER V

HYBRID TEAS

THE beginner could scarcely go far wrong if he filled his garden with Hybrid Teas so far as the planting of bush and dwarf roses is concerned. The majority of them are fairly vigorous and easy to grow. They blossom abundantly in July and in September, and give quite a lot of flowers in August, October, and even November if the weather allows. There are now so many varieties that the beginner's chief difficulty is in making a suitable choice, for some are so much more valuable than others. The two chief drawbacks of this class of rose are the lack of fragrance in many varieties and the thinness of the blooms—that is, their proneness to become full blown very early in their career. These two defects, together with the lack of intense colour, afford plenty of scope for the lamentations of modern writers on roses, and if printed regrets could work wonders (as sometimes they have the credit of doing), our Hybrid Teas would by now be perfect. It is pleasant to be able to chronicle that so far as lack of rich, deep colouring is concerned, the omission is being made good. The want of fragrance is still, unfortunately, a sore point with those garden lovers who cherish the rose above all things for its sweet scent. A generation

lled
g of
of
los-
rive
ven
so
in
ore
his
ies
ne-
er.
se
of
ld
of
It
of
ng
ly,
he
on



ROSE GEORGE C. WAUD (Hybrid Tea)

AT THE COURT OF LAW & EQUITY IN 1820.



ago it would have been possible to choose a selection of roses at haphazard, and still be pretty confident that all or most would be fragrant. Alas! nowadays one must choose circumspectly, and with the knowledge that comes from one's own experience or from that of others; so in any twentieth century book on rose growing, a list of roses that are fragrant becomes really necessary, and the expectant reader will find it farther on.

It is a matter for regret that so many Hybrid Teas are thin. The buds of the morning are the open blossoms of midday, but at least they have the advantage over single and semi-double sorts that, having progressed from bud to blossom, they do not straightway scatter their precious burden of petals. They are not all so bad as I might seem to have made out, and in the list at the end of this chapter I have endeavoured to make plain the good and bad points of many of them.

Having outlined some of the disadvantages of the Hybrid Teas, let me underline some of the qualities that have made them the greatest favourites of all. Probably the reason that they have become so precious to rose lovers is that they are never really out of bloom, if you choose the right ones, from the middle of June until the end of November. I (no doubt in common with many others) have cut presentable blossoms of Hybrid Teas on Christmas Day, though I do not include among their merits that of providing a Christmas posy, yet many things are less likely. Add to their long season of bloom the possession of the most fascinating,

D

most delicate, and most lovable tints ever seen or even dreamed of by the most devoted flower lover, often long, pointed buds, and exquisitely recurving petals, and sometimes fragrance—all these divine attributes within the compass of one rose blossom, and can one wonder that the Hybrid Tea came to stay and has stayed to conquer?

Having enlisted the sympathies of the beginner, and endeavoured to arouse his enthusiasm for the Hybrid Teas, let me tell the story of their birth. Obviously, if there is anything in a name, they are cross-bred, and close connections of the Tea roses. They were evolved from the Hybrid Perpetual and the Tea rose. Now the Hybrid Perpetual itself is closely related to the Tea rose, hence the autumnal flowering character of some of its varieties. Thus the Tea rose, directly and indirectly, has played the chief part in the production of the present race of Hybrid Teas. They are quite a modern race of roses. There were none at all until 1873, in which year Cheshunt Hybrid (a vigorous red variety, often still grown as a climber) made its appearance; but now they are legion. Unfortunately, there are some masqueraders under the title that would be more properly placed in the Hybrid Perpetual group, since an autumn crop of blossoms is not to be expected from them. Hybrid Teas are distinctly intermediate between the two older groups, the Hybrid Perpetuals and the Teas. They have, to a great extent, the prolonged blossoming season, the delicate tinting, the long stalks and pointed blooms of the latter, though not so pronouncedly their frag-

rance, and they have the sturdier, hardier growths of the former.

In an ordinarily severe winter, in which short periods of 10° to 15° of frost and occasional falls of snow are sandwiched between periods of wet weather, Hybrid Teas do not appear to need protection in gardens in the south. In those of the midlands and farther north some protection may be advisable. It is easily and cheaply afforded by heaping a small mound of soil over the base of the plant, so that the lower parts of the stems are covered. This may be done in early December, but the precaution ought to be taken to remove the covering early in March, or the warmth and shelter of the soil may induce the basal buds, which are all-important, to start prematurely and to produce soft, attenuated growths. Writing from a warm garden in Middlesex, I find that protection is unnecessary even for the Tea roses, let alone the Hybrid Teas. It is, of course, far better to err on the side of safety, since the measures that ensure this are so simple. The protection of standard roses is more important. Some Hybrid Teas are less hardy than others, or, being of weaker growth, seem more easily damaged by cold. It is as well, if one's garden is exposed or in a cold district, to protect all standards of Hybrid Teas; the growths are naturally more exposed than those of bush or dwarf roses. The simplest method of protection is to place bracken between the growths; this precaution will ensure the safety of the roses through severe cold. More complete protection still is given by bunching the growths together

loosely, wrapping them round with bracken or straw, and tying lightly with string. One must not forget that coddling is bad for roses of any sort, and this method need only be adopted in districts where experience has shown that a good deal of protection is really essential.

Hybrid Tea roses, as one would naturally expect, vary considerably in vigour and in manner of growth. Some are inclined to make small, spreading bushes like a true Tea rose, or form strong upright shoots like a Hybrid Perpetual; others develop into more or less symmetrical, rounded bushes; while some have the awkward habit of putting all their energy into the production of one chief shoot. In pruning, therefore, the treatment of each plant should be strictly individual, but this will be simple once the principles enunciated in another chapter are grasped. Those having one strong shoot and other small ones must be hard pruned; those that spread and form rather weakly growths ought to be cut back to buds that point upwards, and be well thinned out.

Some of the Hybrid Teas are so vigorous as to form climbing roses, and they are extremely delightful for sunny walls and fences. They are certainly not so accommodating or so simple of treatment as the Dorothy Perkins and Crimson Rambler types, yet offering no serious difficulties to the enthusiastic amateur. They have a great advantage over the true Ramblers in that they produce shapely buds and blooms in contrast to the big, showy bunches of single or semi-double blossom of the latter, and they continue to flower through-



ROSE MARGARET (H.T.). A SPLENDID NEW VARIETY WITH FULL
BLOOMS. PINK WITH ROSE CENTRE



ROSE LADY ALICE STANLEY (H.T.). ONE OF THE MOST RELIABLE
OF THE NEWER VARIETIES SILVERY PINK AND ROSE

out the summer instead of only for a few weeks in June or July. Some are admirable for arches, but generally they are best on warm walls. If thus they take up the best positions in the garden, one has the satisfaction of knowing that nothing else could clothe them more attractively or with more fascinating flowers. The very first climbing rose I ever grew was the old Reine Marie Henriette, commonly known as the "Red Glory," or, in other words, the Red Gloire de Dijon. It has shapely buds, of fair size and red colouring. My plant was on the house wall facing due west. I always expected (and rarely was disappointed) to gather the first blossoms late in May and the last in November or December, and whole posies in between. This variety has a fault, but it is only that of most red roses, which on fading take on a depressing purplish tint. This, however, soon ensures their being cut off, so the evil is not a very great one. Reine Marie Henriette is a type of the climbing Hybrid Tea, but it is one of the oldest, and there are now very many better varieties.

Just a word as to the pruning of these climbing Hybrid Teas, for the correct use of the knife is of great importance. In the March following planting all shoots should be cut down to within three or four inches of the soil. If this is not done the stems are liable to become bare at the base. Even under proper treatment they are inclined to develop this unsatisfactory tendency, and for this reason I half hesitate to recommend them to the real beginner, yet they are so very charming for house walls and garden fences. Several shoots will develop

during the summer following the hard pruning; instead of being allowed to grow perpendicularly they should be spread out fan-shaped. If trained to the wall in an upright fashion, it is more than likely that the following spring fresh shoots will develop on the upper part only, which would nullify the good effect of the severe initial pruning. The amateur should remember the necessity for encouraging fresh shoots from the base of the tree each season. So long as this is accomplished so long will the rose tree remain youthful, vigorous, and free blossoming. For the first two or three years the end in view is usually attained by keeping the stems well bent down, thus checking the flow of sap and forcing the development of basal growths. As the tree becomes bigger it is necessary, each March, to cut down one of the older stems almost to the base to ensure the appearance of a new, vigorous growth to take its place. But much can be done to ensure the foundation of a good, well-shaped, healthy tree by keeping the stems formed in the earlier years well spread out, instead of allowing them to grow perpendicularly, as they naturally will if not attended to. When the tree has passed two summers the orthodox pruning is followed in respect of cutting back, to within two or three buds of the base, all side shoots that issue from the older branches. It often happens, also, that a branch may be somewhat worn out and weakly, yet towards the centre a strong shoot may have developed. In such a case the obvious thing to do is to cut the branch back to the strong new shoot.



ROSE MRS. G. W. KERSHAW (H.T.) A GOOD GARDEN VARIETY
WITH ROSE PINK BLOOMS



THE SPLENDID NEW CRIMSON ROSE GEORGE DICKSON

A SELECTION OF VARIETIES

Admiral Dewey.—This may be described as a pale, blush-coloured form of *Caroline Testout*, from which favourite rose it is a "sport." It grows vigorously and flowers freely.

Amateur Teyssier.—This is a pretty rose, with saffron-yellow buds and white flowers. The growth is rather ungainly, but the blooms are freely produced.

André Gamon.—A novelty that promises well. The flowers, which are rather flat than deep, are of carmine rose colour, with pink centre. It grows satisfactorily.

Antoine Rivoire.—A charming rose of rose-pink colouring, shaded with yellow. The flowers are rather flat, and borne moderately freely. Its growth is fairly vigorous and erect, displaying the blossoms perfectly.

Augustine Guinoisseau.—Commonly known as the white *La France*, though it is somewhat less vigorous than that rose. It blooms remarkably freely, and the recurving petals give it a quaintly attractive appearance. A rose for the beginner. The flowers are blush-white, fading to white with age, and, like *La France*, deliciously fragrant.

Avoca.—A splendid crimson-scarlet rose of excellent form. Growth is very vigorous, and the shoots may be pegged down. It blooms only in July, and though classed as a Hybrid Tea, seems more nearly related to the Hybrid Perpetuals.

Bessie Brown.—A big compact flower that opens slowly and lasts a long time. The colour is creamy-white.

A popular rose for exhibitors, but useless in the garden. The plant is not vigorous, gives few blooms, and these have weak stalks.

Betty is a delightful rose; the flowers are thin and soon become full-blown, but the buds, while they last in that form, are exquisite—old gold and rose and fawn are the shades that commingle. *Betty* grows well, and flowers freely—a rose for everyone.

British Queen.—This is a remarkable novelty, shown for the first time at the National Rose Society's Exhibition in 1912. It is a very deep flower of perfect form, and almost pure white. A very beautiful rose as shown, but I know nothing of its merits as a garden variety.

Carine.—A charming garden rose of exquisite tints, varying through orange and carmine, to creamy-buff. Fragrant.

Caroline Testout.—This is one of the roses that no one can dispense with. It is easy to grow, and forms strong shoots that produce big salmon-pink flowers very freely. Makes a first-rate standard.

Charles J. Grahame.—Worth including in a representative collection on account of its bright crimson blooms, which, however, are not very full. It is of fairly vigorous growth. Not very good in autumn. Closely allied to the Hybrid Perpetuals.

Château de Clcs Vougeot.—A modern variety, unusually dark for this class of rose. Worthy of inclusion in all collections. The flowers are of remarkable colouring, rich velvety red shaded with black; they are not of good form, and I do not find that they come very freely.

HYBRID TEAS

41

Nevertheless, this is a rose I would not be without. It is fragrant.

Countess of Derby.—A good rose for the garden, fairly vigorous and bearing well-formed blooms of pale salmon and rose colour.

Countess of Gosford.—A dainty rose, salmon-pink with yellow shading, not a very strong grower.

Countess of Shaftesbury.—One of the best of recent novelties. Colour, bright silvery-carmine, mottled with shell-pink. Growth vigorous.

Dean Hole.—A variety producing blooms of excellent form, long and pointed, though the colour is rather unattractive—silvery rose and salmon. It grows well as a standard.

Duchess of Wellington.—A splendid new variety with saffron-yellow blooms, stained with crimson. The flowers are not very full, but they are most deliciously scented. The fragrance is like that of ripe apricots. Growth is moderately vigorous.

Earl of Warwick.—A good garden rose. The blooms, which are deep salmon-pink, are freely produced by a fairly strong-growing plant. Makes an excellent standard.

Ecarlate.—Perhaps the most brilliant bedding rose we have. The flowers are of imperfect form, but the bright scarlet colour and excellent bushy habit make it an invaluable garden rose.

Edu Meyer.—Those who like intense and uncommon colouring in roses, while not caring so much for fine form, should grow Edu Meyer. The flowers are thin and soon become full blown. The colour is a mingling

of copper and red, and in a mass gives a most brilliant display.

Edward Mawley.—A new variety with big, deep purplish-crimson flowers. Splendid in autumn. Growth vigorous.

Elizabeth Barnes.—A beautiful rose of distinct colouring, intense salmon, with fawn centre. It is only moderately vigorous.

Entente Cordiale.—White, shaded carmine, a lovely rose of perfect shape. Fragrant. Growth fairly good.

Farben Konigin.—A big bloom of rich pink colour, very showy. The growth of the plants is good, and the flowers come fairly freely.

Florence H. Veitch.—Of scarlet-crimson colour. Growth, semi-climbing. Should be freely planted as a pillar rose or standard.

General McArthur.—One of the very best of the Hybrid Teas. It is of strong growth, and bears bright red flowers, which, if somewhat thin, are very freely produced. A splendid rose for the garden. Fragrant.

George C. Waud.—Quite a new shade of colour in roses was introduced with this variety, which is thoroughly to be recommended. The blooms are of good form, red tinged with orange.

George Dickson.—We have waited long for a good dark red Hybrid Tea, and it seems as though this variety would fill the blank. The plant grows well and bears fragrant, finely formed blooms of deep crimson colouring. It is apparently valuable alike for garden and exhibition.

Grand Duc Adolphe de Luxembourg.—This is a splendid



ROSE JOSEPH HILL (H.T.), A BEAUTIFUL, FINELY FORMED
FLOWER, SALMON PINK AND YELLOW SHADES



ROSE LADY GREENALL (H.T.). SHADES OF ORANGE AND
SAFFRON CREAM EDGE

rose for garden display. The blooms are large and rather untidy, but they come freely, and make an excellent show in the beds and borders. Growth is vigorous. The colouring of the flowers is unusual. The outside of the petals is carmine, the inside pale-rose, and the contrast adds to the charm of the rose.

Gustav Grunerwald. — Everyone should grow this variety if only for the sake of the bright rose-pink colour of the flowers. There are many pink roses, but this is distinct from them all. It grows well and flowers freely. Makes a good standard.

James Coey.—A variety of good growth that bears its yellow, pale-margined flowers freely. Recommended as a bedding rose where masses of one variety are used.

J. B. Clark.—A strong-growing rose, with deep-scarlet blooms with deeper shading. Fine as a standard, pillar, or a free bush.

Jean Note.—An excellent garden rose with large cream-white blooms.

Johanna Sebus.—A large, handsome, salmon-cerise flower. Growth, semi-climbing. Makes a fine standard or pillar.

Jonkheer J. L. Mock.—A big, bold flower of carmine-rose colouring. This variety grows well, and the blooms come fairly freely.

Joseph Hill.—A charming rose, fairly large, and of excellent shape and attractive colouring—shades of pink, yellow, and rose. It has the unfortunate habit of often forming one strong shoot that weakens all the others and results in an ill-balanced plant.

Kaiserin Augusta Victoria.—A dainty, creamy-white rose of moderately vigorous growth. The flowers are of perfect form.

Killarney.—An attractive, free-blooming pink rose, that is very liable to attacks of mildew, and for this reason not to be recommended.

La France.—A very old favourite of bright silvery-rose colour. Of good growth and free flowering. The blooms are of fair form with recurving petals, and are fragrant.

La Tosca.—A vigorous, free-flowering variety, with rather small salmon-rose blooms. Splendid for garden display.

Lady Alice Stanley.—A large flower of deep coral-rose colour, and good form. Growth is satisfactory.

Lady Ashtown.—An excellent rose; the flowers are of good form, deep pink colour, and produced freely by a vigorous plant. Makes an excellent standard.

Lady Battersea.—An early rose, with long, cherry-red buds that quickly become full blown. A charming button-hole flower.

Lady Greenall.—Saffron and orange shades, cream coloured towards the margin. A delightful novelty. Growth vigorous.

Lady Pirrie.—This is one of the newer roses to be recommended for every collection. It grows well and flowers freely. The blooms are of remarkable colouring—shades of salmon, apricot, and copper.

Laurent Carle.—Quite a good rose for the garden, though the colouring—which is red—appears to me



ROSE LIBERTY (H.T.). ONE OF THE BEST OF THE RED VARIETIES



ROSE AVOCA (H.T.). A VARIETY OF BRILLIANT RED COLOURING



ROSE MADAME LEON PAIN (H.T.), WHITE WITH PINK
BROWN CENTRE A GOOD GARDEN VARIETY

rather dull. The blooms are of good form, fair size, and come pretty freely. The plant grows well.

Le Progrès.—The colour of the flowers of this variety—nankeen-yellow—is uncommon and attractive; although not especially vigorous it is a pleasing rose.

Leslie Holland.—One of the newer roses, bright red, of good form. Said to be an excellent variety.

Liberty.—A well-known variety, with rather small, red flowers of good form. A charming buttonhole rose. Moderately vigorous.

Lieutenant Chauré.—One of the best of crimson Hybrid Teas. The flowers are as large as those of Hugh Dickson, and growth, though strong, is compact. An excellent bedding rose, with blooms of good form.

Madame Abel Chatenay.—An indispensable rose. The blooms, of salmon and rose shades, are of excellent form, and come on unusually long stalks. The plant grows well, and flowers freely.

Madame Charles Lutaud.—A variety of showy colouring, similar to Marquise de Sinety, yellow and bronze. Growth is good.

Madame Edmond Rostand.—An improved Prince de Bulgarie. It is a novelty of much promise. Growth vigorous.

Madame Jules Grolez.—Colour, bright rose; a charming rose for massing. Of good growth and free blooming.

Madame Léon Pain.—A good variety for the garden, growing well, and bearing rather large, somewhat loose blooms of salmon, with blush and yellow shading. The red-green leaves add to its charm.

Madame Mélanie Soupert.—A very beautiful rose of rosy-carmine and yellow shades. The blooms are of fine form, but I have found the plant none too vigorous.

Madame Ravary.—One of the best of the yellow roses. It is invariably healthy, and blooms well. The colour is orange-yellow. A good garden rose.

Madame Segond Weber.—A splendid variety; flowers rosy-salmon, of large size and perfect form. One of the best of recent roses.

Marquise de Sinety.—A rose of remarkable colour, golden-yellow and red. Not a very strong grower, but sturdy. The young growths and foliage are finely coloured.

Melody.—Deep saffron-yellow; a first-rate novelty-much liked for forcing. Of free growth.

Mildred Grant.—A big rose of not very attractive colouring; silvery-white and pink. It is liable to mildew, and is more valuable for exhibition than the garden.

M. Paul Lédé.—An established favourite. Its growth might be better, but in many gardens it is a great success. Colour, cinnamon-pink.

Mrs. Alfred Tate.—Coppery-red, shaded tawn. The buds are unusually long, opening to a semi-double flower. Growth good.

Mrs. Amy Hammond.—Cream, shaded amber. A fine big bloom, and of lovely form. Growth vigorous.

Mrs. A. R. Waddell.—This is one of the newer roses of fascinating colouring; the buds are rosy-red, while the flowers show tints of salmon and apricot. Seen at its best when a number of plants are grouped together.

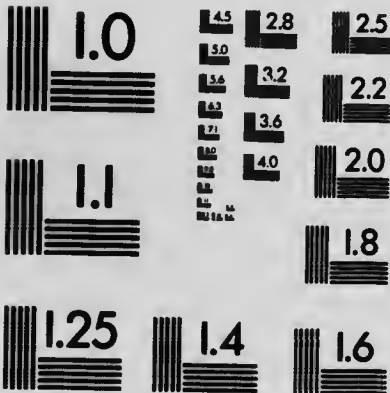


ROSE JEANNE PHILIPPE (H.T.), A SPLENDID DECORATIVE VARIETY
WITH YELLOW BLOOMS



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax



ROSE MRS. AMY HAMMOND (H.T.). CREAM SHADED YELLOW

Growth is fairly vigorous, and the rather small flowers come freely.

Mrs. David McKee.—An excellent rose of sturdy growth, and bearing creamy-yellow blooms of good form with freedom.

Mrs. Edward Powell.—Glowing scarlet-crimson; a novelty of great promise.

Mrs. E. G. Hill.—A good decorative variety, with attractive blooms of coral-red colouring, with paler centre. Free flowering and moderately vigorous.

Mrs. George Shawyer.—A large, deep-petalled flower of great beauty. Colour, rich rose. A splendid grower especially fine for growing in pots.

Mrs. G. W. Kershaw.—A rose that is undeservedly neglected. It grows well, and bears big, pink blooms of good shape quite freely.

Mrs. Harold Brocklebank.—Creamy-white with buff centre. An excellent rose that grows well.

Mrs. Sam Ross.—Straw-yellow and saffron. A promising novelty. Growth good.

Mrs. Stewart Clark.—Like a rose-pink form of Hugh Dickson. It is just as vigorous as the latter, and the best way to deal with the shoots is to peg them down or attach them to a fence. The flowers are large, produced several together, and a well-established plant in bloom is a magnificent sight.

Mrs. Wakefield Christie Miller.—Blush, shaded salmon. The flowers open out like a big tree Pæony, and are most decorative. They are produced on erect, strong growths.

Mrs. W. J. Grant.—An old favourite, and valued still, in spite of its rather weak growth, because it blooms so freely. The flowers are not very big, and their colour is bright rose-pink. The climbing form is the best for garden cultivation.

Pharisaer.—A valuable rose for the garden. The slender buds are produced on long stems, and are most useful for cutting. The colour is rosy-white and salmon. Vigorous and free flowering.

Prince de Bulgarie.—A first-rate rose for garden display. It grows strongly, and bears blooms of good form in abundance. Several shades commingle in the flowers—rose, salmon, and yellow.

Oraoenta.—May be described as a shell-pink Frau Karl Druschki, but possessing the free growth and perpetual blooming qualities of the Hybrid Teas. Fragrant.

Richmond.—Very similar to Liberty, though the flowers are perhaps rather larger. Some find this variety better than Liberty in autumn.

Souvenir de Gustave Prat.—One of the best pale-yellow roses. Of exquisite shape in the bud. A rose for every garden. Growth is vigorous.

Souvenir de Maria de Zayas.—A fine rose of bright carmine colour. The blooms are on strong stalks and well displayed. The plant grows well and forms a compact bush.

Sunburst.—A splendid new rose that deserves to be in every garden. The blooms are large, shapely, and of clear yellow colour. Sometimes they open almost white. The second lot of blooms are invariably finely coloured.

still,
so
our
for

The
ost
on.

dis-
rm
ers

au
er-
nt.
he
ty

le-
or

ht
nd
n-

be
of
e.



ROSE NOELLA NABONNAND. A SPLENDID CRIMSON CLIMBING TEA



ROSE REINE MARIE HENRIETTE (CLIMBING H.T.), AN OLD
FAVOURITE WITH CHERRY RED BLOOMS

Viscountess Folkestone.—An old favourite, still worth growing. The blooms are large, though not of good form, and the colour is cream-pink. It grows vigorously.

Warrior.—A useful rose for massing. The buds are intense red, the open flowers much paler. Growth is moderately strong. The flowers are rather small.

CLIMBING HYBRID TEA ROSES

Ards Pillar.—A showy rose, with large full flowers of velvety-crimson colour.

Ards Rambler.—A handsome and fragrant rose, with large carmine-rose blooms.

Avoca.—This, though commonly grown in bush form, is very vigorous. The blooms are of fine form and intense bright crimson colour, though few or none are produced after July.

Bardou Job.—The blooms are large, semi-double, and intense crimson with darker shading. The plant is best as a pillar-rose.

Cheshunt Hybrid.—An old and valuable rose, with carmine-red, fragrant flowers, freely produced. This was the first of the Hybrid Teas, and is still popular. The flowers are not of very good form.

Climbing Captain Christy.—The blooms are of pale flesh-pink colouring, similar to those of the old dwarf rose Captain Christy, from which the climbing variety is a "sport."

Climbing Caroline Testout.—A climbing "sport" from the favourite bush variety. The blooms are similar.

Climbing Kaiserin Augusta Victoria.—A climbing form of the dwarf rose of similar name. The buds are very beautiful, of good form, and creamy-yellow colour.

Climbing La France.—This is a counterpart of the popular Rose La France in climbing form.

Climbing Lady Ashtown.—Rose Lady Ashtown is one of the best dwarf varieties, and the climbing sort is equally satisfactory.

Climbing Liberty.—All who are fond of the charming red buds of Liberty should grow the climbing variety.

Climbing Mrs. W. J. Grant.—A beautiful rose, with bright pink, well-formed blooms that are freely produced.

Dawn.—An attractive variety, with silvery-pink, almost single, flowers.

François Crousse.—This rose has bright red flowers, the buds of which are of good form.

Grüss an Teplitz.—A favourite variety, with semi-double, bright crimson blooms that are especially freely produced in autumn.

Gustave Régis.—A charming rose in the bud, though soon full blown. The buds are long and shapely, of pale yellow colouring; the open flowers are almost white.

Johanna Sebus.—A showy variety with large, full, though not very shapely, blooms of bright rose colour.

Lady Waterlow.—A very charming rose, though only semi-double. The blooms are salmon-rose, shaded with yellow.

Lina Schmidt Michel.—The blooms of this attractive variety are semi-double, very large, and of rich, deep rose colour.

Longworth Rambler.—An old rose that is free flowering, though the blooms are small and not very shapely. The colour is light crimson.

Madame Hector Leuilliot.—A lovely rose, but one that is rather difficult. It grows freely on a warm wall, but flowers somewhat sparsely. The blooms are of good form and exquisite colouring, golden-yellow, with reddish shading.

Monsieur Désir.—A variety with large, crimson blooms, lacking in fine form, though lovely in the bud.

Pink Rover.—Pale pink, deeper in centre. A fine variety with fragrant blossoms.

Reine Marie Henriette.—An old rose, with deep rose-red flowers, attractive in the bud, but the full blooms are of unpleasant magenta shade.

Reine Olga de Wurtemberg.—A showy variety, with large, semi-double, bright rose-red flowers.

Reine de la Légion d'Honneur.—The flowers of this variety are small, though very pretty in the bud; the colour is carnation-red, with yellow tinge. Fragrant.

Sarah Bernhardt.—This rose bears large, semi-double, bright crimson blooms, and is very showy.

Sheilagh Wilson.—An attractive variety with single flowers of deep-rose shade, resembling Carmine Pillar.

Souvenir de Madame J. Méral.—This rose has bright red blooms of good form—quite of exhibition standard.

CHAPTER VI

STANDARD ROSES

THE Standard rose has lived down the gibes of its detractors, who, and often not without good reason, have derided it as a "mop on a broom-stick." It has been able to do so because it has progressed with the times, and the times, as everyone knows, have afforded it opportunities of self-improvement. The advent of vigorous and free-flowering roses has revolutionised the standard and simplified its cultivation. Then the rise in popularity of the weeping standard has been an immense factor in the uplifting of the standard rose, and this again has been chiefly brought about by the wider choice of roses suited to this treatment that has become available during the past ten years. The weeping standard is no novelty, as one might readily imagine it was, since it is only during the past five or six years that it has really become popular. But Dean Hole, in his "Book About Roses," published forty or fifty years ago, writes of the captivating beauty of weeping rose trees, and remarks how beautiful they are when properly trained. The choice of varieties then available for weeping standards was very limited in comparison with the selection now available.

ORDINARY STANDARDS.—There is something mys-

terious about standards; that is probably the reason why so many of us still have an affection for them in spite of the hard criticism to which, from time to time, they have been subjected. You may plant half a dozen and all will thrive exceedingly, delighting the grower, in due time, with lusty leaves and a full show of bloom. But you may plant another half-dozen, and they will dwindle and die, or grow half-heartedly and miserably, with none of the real joy of life that distinguishes a healthy rose, and this in spite of the best attentions. You may coax them with dainty morsels in the shape of fertilisers guaranteed to imbue them with the vigour of a summer cabbage, you may have recourse to severer measures in the form of hard pruning, yet all to no purpose. They give no satisfaction, which would be bearable if one could only discover the cause and remove it, but, like a person in the sulks, having apparently all they need, except, perhaps, the unattainable, they will not be pleasant and report progress. The bother of it is that you can find no good reason for their failure.

Because of this disturbing characteristic, I am not sure that the ordinary standard rose is to be recommended to the beginner. The weeping standard may be commended whole-heartedly, but the ordinary kind only with reservations, namely, that a careful selection of varieties be made. Fortunately, a number of roses are very generally reliable, but there are others that may or may not succeed, and some that positively will not. Whether it is that they object to being put upon a stem which they cannot possibly hide, and so die of shame at

being unable to cover their nakedness, nobody knows; but if this be the case (and why should not roses have some sense of modesty?), then some possess much more proper (or improper) pride than others.

A well-grown standard is a most attractive object, and, if the roses only knew it (some of them apparently do), the bare stem adds greatly to its charm, for it holds up the living posy of leaves and flowers for all to admire. But none can have patience with a sulky standard. A miserable bush rose is bad enough, but a wayward standard, itself unhappy, makes its possessor unhappier still. There is nothing more depressing than a standard that stands, because it cannot help itself, but refuses to grow; the cold shoulder in the shape of the rubbish heap, is all it deserves, and to which it must eventually come. I am sure that the reader has discovered by now that by an ordinary standard I mean a non-climbing rose budded on a stem about four feet high, as distinguished from a climbing rose budded on a taller stem that forms a weeping standard. I wonder if the roses that fail on four-foot stems would thrive any the better on higher ones. Some of them do on lower ones, as I shall show.

Even when lucky enough to obtain really fine standards, lots of people spoil them by placing them wrongly. It has always been the fashion, and probably always will be (so conservative are the devotees of gardening), to arrange standard roses in a row on each side of the garden path. When the path winds in graceful curves, such an arrangement is permissible, but—or so it seems



A BORDER OF REMARKABLE STANDARD ROSES IN A GARDEN IN SOMERSET



ROSES IN A GARDEN BY THE SEA

to me—to flank the side of a straight and narrow path with lines of standard roses, does credit neither to the path, the roses, nor the rosarian. I don't know quite why it is—perhaps because it is such an obvious thing to do, the sort of thing that would occur to the man who had never done any gardening before—but it is plebeian, commonplace, and utterly lacking in inspiration. Rather would one see them planted in the middle of a bed of bush roses, where, themselves flying fragrant blossoms to the breeze, they bring welcome variety to the bed of roses below, and break up its monotony of outline. They look very well if grouped half a dozen or so together in a round bed, the surface of the soil being covered with low-growing flowers; or disposed, not singly, but in each other's close company, in any one of the many little nooks and corners to be found in every rose garden. In such positions they fill small beds most admirably. But if your walk is straight and meagre, do not, I beg of you, for the garden's sake and your own peace of mind, accentuate its straightness and its meagreness with ordinary standard roses.

The details of soil preparation and planting described in another chapter apply to standard roses, though there are one or two special points to which reference may be made here. The roots ought to be placed five or six inches beneath the soil, and care taken to insert the stake before the roots are covered, or the latter may be badly damaged. In supporting the standard, the rose should be tied to the stake, not the stake to the rose; the string is first passed twice round the stake, then

round the rose stem, and tied. Square, deal stakes, painted green, are the best, and as it is sometimes difficult to obtain them locally, as many as are needed should be ordered from the nurseryman at the same time as the roses. When standards arrive from the nursery the shoots are usually supported by a thin stick or bamboo cane, which has served the purpose of keeping the young growths firm in the stock; in the spring following budding, they are liable to be blown out by rough winds. These small supports should not be removed at planting time, for they serve to support the shoots in rough weather in winter. They may be dispensed with when the roses are pruned in March.

It is advisable to prune standard roses severely in the spring following planting, cutting all shoots back to within two or three buds of the base. In succeeding years, especially if the plants show signs of weakening, hard pruning is also advisable. If the standards are vigorous, the shoots may be shortened by half; otherwise, they should be cut back to within two or three buds of the base. I believe that lack of hard pruning is partly responsible for many failures in growing not only standard, but all roses. When a rose grows weakly and the shoots decrease in size, amateurs are less inclined than ever to prune hard; the smaller the growths, the greater is the hesitation in cutting them off. This is contrary to good practice, for the weaker the growth the more severely should it be pruned. Standard roses benefit greatly by applications of liquid manure during May and June, but if this cannot be prepared conveniently,

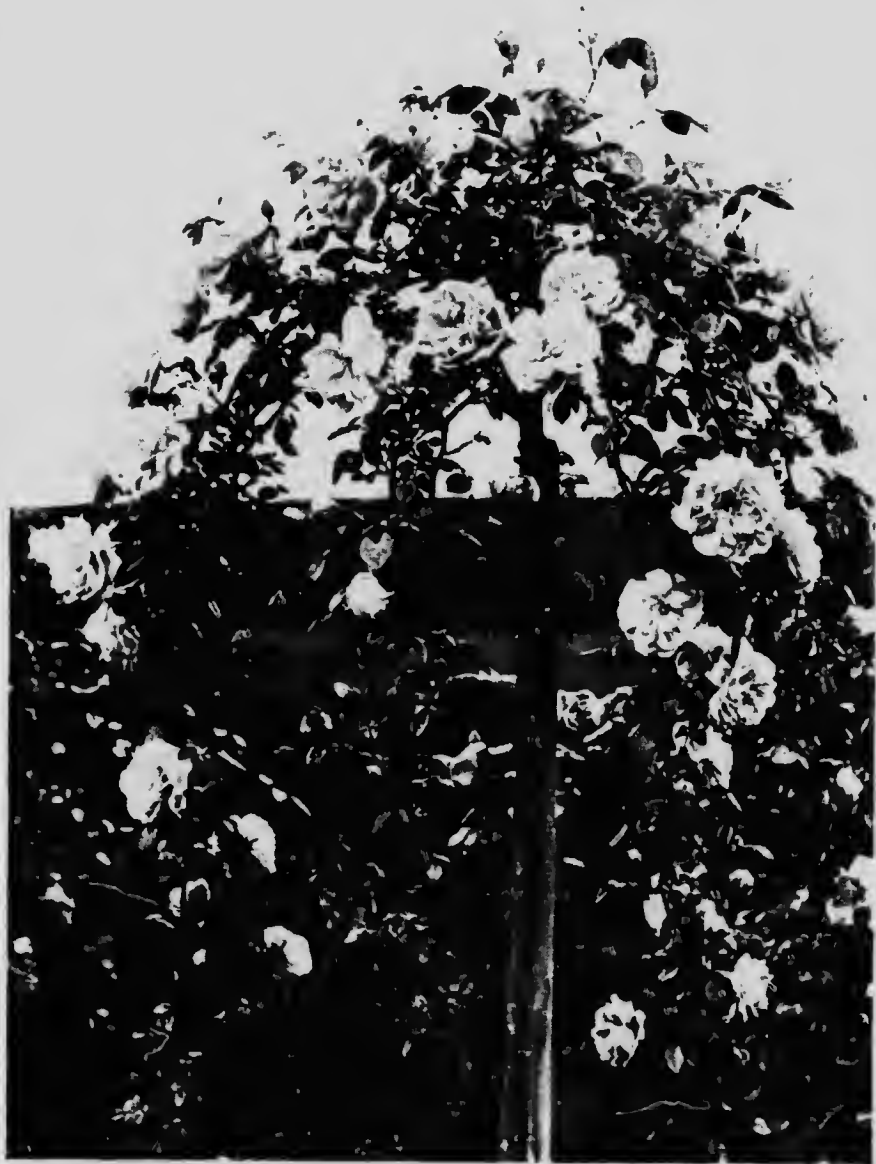
farmyard manure should be applied in autumn and forked in the soil. In February Tonks's Manure or bone-meal may be given.

Suckers, i.e. growths from the stock on which the rose proper is budded, are often a great nuisance on standard roses. They form on the stem, even at the top of the stem among the shoots of the rose, and a watch needs to be kept in the month of May, when suckers appear most freely, or one may find, when the flowering season arrives, that one's care has been expended on a shoot from the stock. Suckers often run underneath the soil for one or two feet, and then send up growths; they should be traced to the point of origin, and there cut off.

WEeping STANDARDS.—Most of us look upon weeping standard roses as a modern creation, but they were known and grown years ago. In the early seventies Dean Hole wrote with enthusiasm concerning them: "they form," he said, "such a floral fountain as may have played in the fancy of our Laureate when he wrote: 'The white rose weeps, she is late.'" But none of the *wichuraiana* roses were available then, and these, owing to their naturally slender growth, which droops readily, make the best of all weeping standards. There is, however, still much to be said for the use in this form of some of the old climbing roses, such as *Félicité Perpétue*, *Dundee Rambler*, and the *Garland* rose, to mention only a few of those that are now less commonly grown. They are graceful of growth and prodigal of bloom; alas! that they are so fleeting. Weeping standards are real

beginners' roses, though, being trained in an artificial form, they may at first sight seem difficult. But they are just as easy as an ordinary free-growing climbing rose, far easier than the average standard, for the simple reason that only vigorous varieties are suitable for the purpose. If planted early in autumn, each shoot being pruned to within six inches of the base in the following March, they soon begin to send out long lissom growths that depend with perfect grace from their point of vantage, and promise an abundant blossoming the following summer. And as the seasons pass, flowers at first spangle the leafy stems, then commingle freely with the leaves, and finally come in such profusion that the latter are almost hidden, and you have a rose tree in its highest form of beauty.

Grow weeping standards preferably on tall stems, six feet high, so that in high summer the flowers may have a background of blue sky flecked with fleecy clouds or of the soft green of distant trees. If the stem is only four, or even if it is five feet high, the flower-laden stems, so luxuriant are they, soon drag in the dust or the mire, whichever the weather god may send, and one is obliged to shorten them so that the stems are clear of the soil. It is possible, as I have done, to transform a five-foot stem into one that to all intents and purposes is six feet high, simply by putting in a tall stake, to which the stem of the standard is made fast, and tying some of the principal growths to it, so that they depend from the top of the stake, instead of from the point at which they were budded. The deception is not noticeable



WEEPING STANDARD OF ROSE LÉONTINE GERVAIS (WICHURAIANA).
ROSE AND YELLOW



STANDARD OF ROSE GRACE MOLYNEUX

when the tree is in full leaf and bloom, and, after a season, not at all.

Wire trainers are often used for the support and proper direction of weeping standards; they certainly help to form a symmetrical plant, but I doubt if they are really necessary. Most of the shoots fall naturally into graceful lines, and if, here and there, an erring one persists in keeping too close company with its neighbours, instead of filling a blank, it is an easy matter, with the aid of a piece of string and timely attention, properly to direct its going. After a while the string may be removed altogether, but the coaxing should be begun in good time.

The pruning of a weeping standard is similar to that needed by the same variety when grown as an ordinary climber. It takes the form of cutting out, in late summer, a few of the old and worn-out shoots to make room for the fresh ones, and, in spring, cutting back to within two or three buds of the base the side shoots that have formed on stems more than one year old. It is important to see that weeping standards are supported properly, either by strong stakes or special trainers, for, owing to the large "heads" that form, they sway violently in rough winds, and become loose in the soil—a condition of things that is detrimental to their well-being. It is necessary also to ensure that the long growths do not become entangled with each other, or many buds may be broken off. The wire trainers to which the shoots can be attached, are certainly useful in keeping the trees orderly, though the same end may be achieved

by the use of string, the tips of the shoots being attached to the stem of the tree, and to each other, if necessary. But it is a mistake to attempt to make a weeping standard "prim and proper"; much of its charm lies in the natural grace of the long, slender shoots, and to restrict them unduly is to detract from their beauty.

The weeping standard demands to be well displayed; it forms such a perfect picture of rose beauty that there can be no hesitation in giving it pride of place in the garden. It fills the centre of a formal rose garden with queenly grace, and there should be placed in default of a sun-dial, old well head, or stone fountain. Nothing so soon gives an old-world charm to a garden as one of these, but no better substitute can be found than the weeping rose. Wherever placed, the weeping standard needs space. Crowd it, as you may do a bush or even an ordinary standard rose, and its chief charm, perfect contour and grace of form are lost. One should be able easily to admire it from any point of view.

HALF-STANDARDS.—It may or may not be necessary to explain that a half-standard rose is one that is grown on a stem about two feet high, but it is perhaps always wise to premise ignorance on the reader's part. The half-standard rose has great merits, for in this form the Tea roses thrive admirably, while often they fail as full standards. To show the perfection to which Tea roses may be grown as half-standards, in the National Rose Society's annual for 1912 there appears an illustration of a half-standard of rose Mrs. Edward Mawley bearing seventy blooms. Perhaps I ought to be fair, and add

a postscript, pointing out that in the accompanying note it is stated that this is the finest half-standard the writer has ever seen. But I could have excused the omission by quoting the old saw that "All may do what has by man been done." At least, it serves to show how excellently the Tea rose may thrive in half-standard form.

Half-standards are especially well suited to planting among dwarf or bush roses, particularly of Teas. Most of the latter are of low, spreading growth, and look all the better for the presence of a few half-standards, which give added height to the display and supply the missing touch of boldness to the grouping. Many of the prize blooms of Tea roses that are so much admired at exhibitions are gathered from half-standards. During the winter protection from cold should be afforded by bracken thrust in among the branches. There is usually little pruning to be done when March comes round, for the growths often die back partly during the winter. If prize blooms are wanted, each shoot must be cut to within one or two buds of the base; otherwise they may be left two or three inches long. Thin, weakly growths that evidently will not flower, should be cut out altogether. In fact, thinning out the weak and dead growth often constitutes all the pruning needed by half-standards when they are grown to provide roses for garden display.

CHAPTER VII

ROSES AND OTHER FLOWERS

It is, of course, a crime in the rose world to advise the association of any other flower with the queen of flowers. Happily, it is not likely to be visited by any more serious punishment than that meted out by the critic, so I may tell my tale as seems best to me and the advantage of the reader. I have not the courage actually to direct the reader, in plain words, to grow roses anywhere except in beds specially prepared for them in the open where there is no game of hide-and-seek between the sunshine and the shadows, but where the sunshine plays all alone. That is the place for the roses. But—there *must* be a "but" in a chapter like this, for does not its presence in emphasised form connote a departure from the orthodox? Indubitably it does, and I am sure that the present chapter, if it does nothing else, will add considerably to the character of a conjunction. However—and it is a happy thought—I am out to please and, if I can, to instruct the beginner, and certainly before he can be taught he must be pleased. At least, that is my conception of the task, and I hope it does not place the beginner's intelligence on too low a plane, or make him feel, with too great a realism, that he is still in baby clothes, short stockings, and

the
ers.
eri-
so
an-
to
ere
en
he
ys
ere
ot
re
m
e,
n.
to
r-
t
it
w
l,
d



ROSE LADY PIRRIE (Hybrid Tea)





abbreviated pinafores, so far as the roses are concerned.

I am encouraged in my attempt to arouse the interest of the beginner by the knowledge that very often an enthusiasm for roses is aroused by the possession of a few, perhaps gaunt and ill-kempt, specimens in the mixed flower border. They are quite sufficient to imbue him with some glimmering of the unfathomable charm and bewildering delight that the rose begets in its lover. When mental skies are grey, even when the clouds are black and low and it seems as though the sun never would shine through, there is always a smile on the roses' lips even when there are tears in their eyes.

Not content with surmising that roses struggling for an existence in the border may give birth to an enthusiasm that only ceases to grow when it is not encouraged, and even then never wanes, I shall dare to say that there are some roses you may grow, and even ought to grow, in the mixed border if you would gain from your garden all the intense joy and exquisite companionship it is capable of affording. After all, there is something just a little monotonous in the aspect of a bed or border filled with one kind of plant, even though it be the rose. There is a charm about the unexpected that is not to be denied, and to come across a big rose bush, lusty and abounding in blossom, rubbing shoulders with a clump of Larkspur or jostling the stout shoots of a Pæony, may perhaps not afford evidence of good gardening as standardised for us

nowadays, but it is uncommonly delightful. But here, as so often in rose growing, there are pitfalls.

You must choose the proper sorts, or they will never be able to withstand the aggression to be expected from the other border flowers; for flowers, like ourselves, are quite alive to the importance of a "place in the sun." Some get it and some do not; it is all largely a matter of personality. Choose, therefore, for the mixed border roses that can take care of themselves. One of the easiest ways of all to ensure an old-fashioned flower border is to plant a few rose bushes in it. It becomes old-world at once because you don't, in these days, expect to find roses outside the rose garden. The difference between the old-world and the modern in gardening is very largely a matter of disposing the flowers. If you put them just where you are told they ought to be put, and where everybody expects to find them, your garden will certainly not be old-fashioned; but if you disregard the conventions, though keeping still an eye to propriety, your garden will not only become old-fashioned (which, after all, may not be wholly desirable), but old-world also, and breathe the old-world charm (which nobody can define but everybody may recognise)—another thing, and altogether more delightful and satisfying.

If you can progress so far as to disregard the convention that roses are out of place anywhere except in the rose garden proper, there seems no good reason why they should not go in the mixed flower border. A very good reason, even, seems to exist if one chooses those

that bloom throughout the summer, for they add more to the gaiety of the garden than the other plants, most of which have their short season of bloom, and, having blossomed, fade and become unattractive for the rest of the season; a rose, if not in bloom, could never look dowdy, even though it might be uninteresting. Heigho! then, for roses in the mixed border of hardy flowers.

I hope no reader will compare this chapter with that on rose gardens, for he may not be able to reconcile the two. But, or so we are told, there is great charm in variety, so I make allusion to the orthodox and the heterodox, certain in the belief that the reader will find no difficulties in making a choice, or perchance in striking a happy mean. Should the comparison unhappily be made, let the reader believe that in writing of rose gardens I was but following the conventions, and probably giving similar advice to that which has been given before, and that at the moment I am, metaphorically, kicking over the traces. According as he be heretic in fancy or orthodox in taste, let him take heed of the one and forget the other according to his way of thinking. An author of gardening books, if he is wise (or perhaps if he is unwise), will have no cut and dried opinions; he will put the pros and cons before the reader and cry, with Alexander Pope, "This choice is left ye."

For some, at least, of the roses that can be relied upon to hold their own in the mixed border we have to go back a long way, to dip a little into the lists of the past, for some of the old sorts are giants still when it is a question of "holding their own." Choose, for instance,

Ulrich Brunner, La France, General Jacqueminot, Madame Isaac Pereire, Rosslyn, Mrs. John Laing, Duke of Edinburgh, Senateur Vaisse, Margaret Dickson, Grace Darling, and, if you would be up-to-date, such as Hugh Dickson, Mrs. Stewart Clark, Conrad Meyer, Nova Zembla (and all the other good company of rugosas), Madame Laurette Messimy, Grand Duc Adolphe de Luxembourg, Caroline Testout, Madame Abel Chatenay, Frau Karl Druschki. With such as these you may pick big posies in high summer and still leave plenty for the garden show, and gather quite good vasefuls almost any time you wish until the fogs and frosts put an end to all good things in the world of flowers. And why should space be denied to the lovely old pink Moss or the dainty Maiden's Blush? The fact that they are culled from an old-world border will charge the roses with an added sweetness, and revive memories that still lie garnered in the "storehouse of the mind":

"For then sweet dreams of other days arise,
And memory breathes her vesper sigh to thee."

And why not have, here and there, towards the back and sometimes towards the front of the border, to break the monotony of outline, tall pillar roses in varieties of entrancing and even gorgeous colours. All the old favourites, the ubiquitous Crimson Rambler and Dorothy Perkins, as well as others of less obvious, though none the less real charm. Climbing roses grown in this way are altogether delightful, and I hope I have shown that the beginner, if he chanced to begin with roses in an



VICLAS (TUFTED PANSIES) AMONG THE ROSES



A GARDEN GATEWAY COVERED WITH THE RAMBLING ROSE FLORA (SEMPERVIRENS).
THE BLOSSOMS ARE ROSE PINK

ROSES AND OTHER FLOWERS 67

old-world border, may go back to his first love, if openly derided by experts, at least with some proper side and the good wishes of a scribe among the roses to whom the unorthodox makes appeal.

There is another aspect of the subject of roses and their association with other flowers. When grown in beds specially reserved for them, is there any good reason why the ground between should not be covered with dainty blooms? There is, indeed, a very grave reason, or so I might tell you were I dilating upon the "summer treatment" of roses. But, happily, for the moment I am trammelled by no such claims of proper gardening. Therefore I can defy the conventions and reply to the self-imposed question with a negative. There is no reason why you should not smother the ground beneath and between the roses with those delightful and daintily varied tufted Pansies or Violas that begin to bloom in May and are scarcely without blossom onwards until November. How cosy they look, and how they "set off" the roses—or do the roses "set them off"? Whichever it may be, there is no doubt that they look very charming together, far better than either looks alone. Spreading into low, wide, leafy tufts, they become at first spangled, and eventually smothered in dainty, wide-eyed flowers. And if, as perchance may happen, a Pansy creeps up the rose's stem, is either a whit the worse? Let the reader make trial of them and judge. I have never found the roses suffer, and as for the Pansies, they may very well be left to take care of themselves.

And think of the simple, yet nevertheless very charming, colour schemes that may be so easily arranged : the white with the pale blue, the purple with the gold, the rose with the pale yellow, or the creamy, blue-margined ones all alone. Why, you have only to plant *Violas* beneath the roses to ensure a perfect garden of flowers from May Day to Michaelmas. If the roses are grouped in colours of similar shade, then one may arrange still more elaborate schemes, choosing *Violas* to match the roses with which they are associated.

Other flowers besides *Violas* may be used for covering the surface of the rose beds. The blue *Lobelia* (the compact, not the spreading form) is suitable, and some of the annuals may be employed. The dwarf white *Alyssum*, for instance, is a perfect little plant for the purpose ; its low, quickly spreading tufts are full of bloom for months together, and they come at the bidding of a few seeds scattered in March. One may even use the creeping *Pompon wichuraiana* roses referred to in a later chapter for covering the surface of the beds, while *Pinks* are quite suitable.

CHAPTER VIII

BIG ROSE BUSHES

THE average amateur is fascinated by anything big in the way of garden produce, whether it is a rose or a cauliflower. I do not write disparagingly, for I confess to similar appreciation. One would not, perhaps, find greater delight in the high Alpine flowers were they twice the size they are, but then they are miniatures, and one's appreciation is adjusted accordingly. But most people prefer a big rose bush, I think, to a little one, and a big rose bloom to one that is small always providing that it possesses some charm of form and tenderness of tinting. The production of a big rose bush is very satisfying to one's vanity (and are not all rosarians vainglorious?), even though it has developed in spite of, rather than in virtue of, one's care. A giant bush of Conrad Meyer is calculated to give far greater delight than a puny plant of Tea rose Lady Roberts, though the latter would be easily first, and the former nowhere, on the show-board. And so, having satisfied my conscience and justified the appeal of big rose bushes, it remains to discover those best suited to the purpose.

There is none to excel Conrad F. Meyer, a variety that is closely related to the Japanese Brier (*Rosa rugosa*).

It quickly develops into a huge thorny bush, eight or ten feet high, and as far through. It will grow in any aspect, although only a sunny spot finds it at its best. When, after a year or two, this rose is thoroughly at home, it produces great thick shoots very freely, and they are covered from tip to base with the most formidable thorns. It is really so aggressive, that sooner or later you give up all attempt at pruning, and resign yourself to cutting out an old shoot here and a dead one there, which is, as it happens, all the pruning Conrad Meyer needs if you cut it down in the March following planting. It is a happy rose to grow; you cannot fail to be impressed by its astonishing vigour and the joy of life that possesses it, and to become imbued with some of the happiness with which it is so obviously bubbling over. When, with the last days of May, the giant leaves are spread, and the glorious blooms unfold, it is a grey day for the rest of the garden. Conrad Meyer arrogates to himself your admiration: the big, bold, rose-pink flowers, of ideal form and most delicious fragrance, compel your unstinted and whole-souled delight, and the profusion with which they come fills you with wonder and all the other garden flowers with envy.

I have only one plant of him (having no room for more), but I have been impressed with the way in which he has risen superior to circumstances, absolutely setting them at naught, and revelling in triumph at their discomfiture. For I set him at the foot of a fence facing north, where the soil was good, but always more or less damp, and, therefore, difficult to dig. There were



ROSE UNA. A BEAUTIFUL BRIER WITH LARGE, WHITE, GOLDEN-CENTRED FLOWERS



ROS/ POLYANTHA GRANDIFLORA. A VIGOROUS RAMBLER WITH BUNCHES OF WHITE SINGLE FLOWERS

BIG ROSE BUSHES

71

for his company a Mock Orange, a climbing Hydrangea, two or three bushes of Forsythia, a Spiræa or two, a colony of Lupins, and some spring-flowering bulbs. Was he content with the damp, dank corner, and happy as one in a crowd? Not a bit of it! As befits a king among the roses, he was soon out of the garden mists and revelling in the sunshine. And now, after the lapse of a few years, he towers proudly to a height of eight or ten feet, "monarch of all he surveys"—in the way of roses. I have, I think, not exaggerated the merits of Conrad Meyer. I know of none that grows so well and bears such perfect flowers—big, double, well formed, of lovely colour, and fragrant.

There is a similar rose with white blooms called Nova Zembla, but so far as my experience goes, it neither grows so lustily nor flowers so freely. If the strong, thorny shoots of Conrad Meyer are not secured in some way, they disfigure each other most unmercifully when the wind blows: the bark is scraped off and hangs in shreds, and the buds are torn out. They may be tied to rough supports, or bent so that the ends can be attached by string to pegs in the ground, or to the stem of the rose tree. It is wise always to bend down some of the biggest stems, to obviate their tendency to produce blooms towards the top only.

The true Japanese Briers and their single or semi-double-flowered varieties make splendid bushes, and they have the advantage in late summer of bearing big, brightly coloured fruits. They seem scarcely so desirable for a garden of limited extent as Conrad Meyer,

but for planting on the outskirts, for shrubbery, or for wild garden they are most valuable. The flowers are large, and freely produced in late May and June, and to some considerable extent in late summer. At this season they are unusually attractive, both flowers and brilliant fruits adding to the gaiety of the bushes. The finest crop of fruits is obtained by pruning hard each March.

Perhaps the best way of growing *Grüss an Teplitz*, a Hybrid Tea rose, is as a free bush (though I have seen it rampant on a sunny wall, and o'ertopping the ten feet high summit). In any case, it thrives splendidly when not trained in any way, and it is especially valuable because it comes into flower rather late, and in September is at its best. The blooms are in big loose bunches, chiefly on the upper part of the stems; they are only semi-double, but of vivid crimson-red colouring, and most fragrant. One needs to use the pruning knife very sparingly on *Grüss an Teplitz*; it is only necessary, in March, to cut away any old and thin weakly shoots, and to shorten slightly such others as may have soft or very thin ends. It thrives with me in a half-shady corner, and there flowers quite freely, though it is certainly worth a place in the sunshine.

The old thornless Rose (*Zéphirine Drouhin*) makes an excellent bush, and its lovely, fragrant blooms of soft rose-colour, that are freely produced for weeks together, are most welcome. The pruning essential to its free blooming is directed to thinning out the oldest stems occasionally, rather than to cutting back. *Zéphirine Drouhin* is quite one of the old-fashioned roses now,

and belongs to the Bourbon class; it is, however, exceedingly well worth a place in the beginner's collection. The smooth, vigorous stems, richly coloured young leaves and the profusion of fragrant flowers of a most exquisite shade of rose pink, constitute its chief attractions; considered together with its accommodating nature and ease of cultivation, they should ensure its entrée into every rose garden worthy of the name.

Hugh Dickson, a magnificent, rich-red rose, will, with some attention to training, develop into a wonderful bush. The strong, thick shoots, which are often six or eight feet long, ought to be pegged down or bent down and tied out to stakes, or even to the stem of the rose tree itself, then the buds on the lower part of the stems burst into growth. A far better display of bloom is thus assured. Mrs. Stewart Clark is similar in manner and in vigour of growth; the flowers, which are very large and shapely, are of rich satin rose colour. It needs the same kind of treatment as Hugh Dickson. I have these roses planted in a three-foot wide border at the foot of a five-foot fence; by preserving the vigorous growths that develop each summer, and so bending them that the ends can be pegged down or tied to the stem of the rose bush; by training them also along the fence, they have both covered the latter and filled the border. Little pruning is needed in any case after they are established; less than ever, if the growths are tied down as described. One has merely to cut out an old stem where there is a new one to take its place, and to shorten to six or eight inches, the side shoots on the

older branches. Other fine roses needing similar treatment are J. B. Clark, Sarah Bernhardt and Johanna Sebus.

Some Rambler roses are of stiff, sturdy growth, and readily form big bushes. Trier is an admirable example ; it bears, white, single flowers very freely, not only in summer, but continuously from July until late September, a characteristic that distinguishes extremely few other climbing roses. The non-climbing form of Aimée Vibert, which has lusty, almost evergreen, leaves, and bears big bunches of white, double flowers late in the summer, lends itself well to this free and easy method of cultivation, and Aimée Vibert à fleurs jaunes is equally amenable.

If one has plenty of space, many of the rambles may be grown to form big bushes. Instead of being tied to supports, the growths are allowed to fall naturally and, as they develop, the weight of leaves and blossoms causes them to arch most gracefully. Crimson Rambler, Alberic Barbier, Flora, Psyche, Bennett's Seedling, The Garland Rose, Jersey Beauty, Gardenia, Hélène, and, in fact, innumerable other strong growers form immense bushes, eight feet or more high, when well planted, hard pruned at first, and then left pretty much to themselves, the oldest growths being cut out when they are jostling the fresh ones. In high summer, when every stem is wreathed from tip to base in blossom, they produce an inspiring flower display. Vigorous varieties grown in this way are undoubtedly the roses par excellence for the busy man, but, unfortunately, they need

a lot of room, and those whose garden space is limited would do well to train them in the orthodox manner to poles, pillars, and arches. To visit the rose dell at Kew in the month of June is to realise the splendour of display produced by rambling roses grown naturally. Every stem is a trail of clustered blossom, here bewitching in tenderness of tone, there of flaming appeal, and all combine in a rose show of incomparable charm.

Many of the strong-growing Hybrid Perpetuals and Hybrid Teas will form fair-sized plants, four feet or so in height, in the course of a few years, if, after the first spring, they are lightly pruned. There is, of course, the drawback that they may get bare at the base, but this can be circumvented to some extent by cutting down one shoot each spring, by planting in good turfy soil, and by manuring heavily when the roses are established. Under such treatment I have seen splendid bushes of many favourite garden roses. Some that may be relied upon for this purpose are Grace Darling, La France, Caroline Stuart, Margaret Dickson, General Jacqueminot, Avoca, Grand Duc Adolphe de Luxembourg, Rosslyn, Clio, and Frau Karl Druschki. Such old favourites as W. A. Richardson and Gloire de Dijon yield a wonderful harvest of bloom when allowed to develop as free bushes, the ends of the stems being secured to pegs in the ground to prevent their being blown about and getting damaged by each other.

There is a great satisfaction in growing roses that smother themselves in blossom, and this should induce every beginner to attempt some of those I have described.

There is a sufficiently wide selection to suit all tastes and spaces. This method of rose growing has the further advantage that it demands a negligible amount of one's time. One has merely to cut out a few old stems as opportunity offers. and, in March, to shorten slightly such side shoots as may have developed on the remaining chief stems. Surely, little enough to ask in view of the wonderful return they give when flowering time comes round.

PART II

Roses to Proceed With

CHAPTER IX

ROSES FOR WALLS AND FENCES

VERY few amateurs seem to appreciate the value of walls in a garden, if one may judge by the very ordinary plants usually grown thereon. So far as roses are concerned, it is often more difficult to coax a common variety to success on a warm, sunny, and, therefore, precious wall than it is to induce a choice one to thrive there. Walls that afford ideal positions for exquisite Tea and Hybrid Tea roses are often planted with those that would be far happier in the open garden, fully exposed to the fresh air. How difficult it is, for instance, to succeed with Crimson Rambler and other similar roses on a hot wall, yet how very simple to grow them to perfection on an arch or arbour in the open garden. All walls having a south, south-west, or west aspect should certainly be reserved for roses that need shelter and all the warmth the garden is capable of affording them. How fascinating on a warm wall are the climbing Teas, for instance, that seem gradually to be falling out of cultivation; how easy there, yet how difficult anywhere else. One sighs, again, for some discrimination among rosarians when one

thinks of the hardy Ramblers that languish on precious walls for the lack of fresh, sweet air about their shoots, while other far lovelier roses, that would be supremely happy there, are neglected and forgotten. But this is a rose age of Ramblers; our rose gardens cannot have too many of them; they are planted to cover anything and everything in the way of a support, whether the position is suitable or not. There is nothing to excel them for arches and arbours out in the open, but on warm walls they blossom meagrely, often fall a prey to red spider and other insidious insects, and, themselves disappointing, rob the garden of other, if not greater, rose treasures. The first essential, then, if we would make the most of sunny walls, is to choose the roses circumspectly and with care; by so doing, while not misusing the familiar sorts, we shall be able to add to our collection many lovely roses that are unworthily neglected, and to grow them to perfection.

There are varieties suited to all aspects, and there is no need to plant ivy even on a wall or fence facing north. A brick wall is more likely to suit the tender roses than a fence, for the latter must necessarily be somewhat draughty. But roses, like other flowers, rarely do just the thing one expects of them, and readers whose gardens are bounded by fences may plant as though their fences were brick walls; there may be no difference in the results. However, there still remain the walls of the house, and these alone, if sunny, offer unrivalled opportunities of growing some of the choicest varieties. It sometimes happens that even a tender rose finds a



ROSES GLOIRE DE DIJON (T.), BUFF AND YELLOW, AND REINE
MARIE HENRIETTE (H.T.), CHERRY ROSE, ON THE WALL OF
A WAYSIDE COTTAGE



ROSE, CAPTAIN CHRISTY (H.T.) ON A LOW FENCE

ROSES FOR WALLS AND FENCES 79

brick wall too hot in high summer-time, and disappoints by making little progress. The simple expedient may then be tried of attaching trellis to the wall and training the roses on this. The shoots are thus kept a little distance away from the bricks, and the additional fresh air that finds its way among the branches may make all the difference between success and failure. It is only on walls facing due south that this precaution, as a rule, is necessary; but its trial may be recommended whenever a wall rose is not making satisfactory progress.

Perhaps the most important point of all is to give the roses a good start in life; this means so very much to them afterwards. Moreover, precious years may pass before they really recover from an initial set-back. A hole, three feet deep, and of similar width, should be dug for each plant. If the land is unusually heavy, or clayey or very light and sandy, all the soil taken out ought to be removed and replaced with fresh compost. In ill-drained ground there should be eight or ten inches of broken bricks at the base of the hole. One often finds that climbing roses against walls fail, on heavy land, because water collects in the bottom of the hole, causing the soil to become sour, and eventually leading to the death of the tree. Where, as so often in suburban gardens, the soil is really little better than clay, the hole might be dug three and a half or four feet deep to allow for twelve inches of drainage material at the base. Whole turves (those that have been stacked for some months are preferable), grass side downwards, are placed on the broken bricks, and the remaining space is filled with

prepared soil. Turfy loam, obtained by chopping whole turves, each into six pieces, with a spade, should form the chief ingredient of the compost; well-rotted manure, to the extent of one-third of the whole, is mixed with the loam, together with a double handful of half-inch bones to each bushel of compost. This forms an ideal mixture, but it may be said to be really essential to success with choice climbing roses, though the extent of the special preparation needed depends upon the quality of the natural soil. The purpose in view would probably be achieved by exchanging good soil from another part of the garden for the clay or gravel dug out, if farmyard manure and half-inch bones were intermixed, but it remains true that turfy loam would be better.

It is surprising how well climbing roses against walls, even choice and somewhat difficult sorts, will thrive if they are given a really good start; this is, in fact, of the first importance. By the time the roots have used the good fare provided, a strong plant will have been built up, and a rose that is established is, as a rule, very well able to take care of itself; it will triumph over circumstances that would overwhelm a newly planted or badly planted tree. When one remembers that some of these roses may outlive the planter, it is apparent how well deserving they are of initial care. An hour's attention at planting time is worth days of it afterwards, for it is far simpler to give the rose a good start than to bring it back to health from sickness. If well and truly set, time will but add to its vigour, and the flight of years enhance its attractiveness; plant it badly, and

ROSES FOR WALLS AND FENCES 81

the rose grows old before it has passed its normal youth. It is best to fill the hole a week or two before the rose is planted, so that the soil may settle to something like its ordinary level.

As to the pruning, well, nearly everyone has his own pet opinion as to the best course to pursue in the spring following planting. Personally, I always cut down climbing roses to within five or six inches of the base in March of the first year, and I have found it to result in the establishment of strong plants. If the roses planted in late October or early November are full of vigour in spring, and show signs of starting growth freely, it may serve the same purpose if the stems are tied out horizontally to the wall or fence, or, if not quite horizontally, at least as low as they can be bent without danger of being broken. The object of each method is to force the development of strong shoots from the base. Lacking these, no rose can live long and healthily.

As the years pass, some varieties are more prone to get bare at the base than others, and, do what one will, it is not always possible to get leafy stems to the ground level. But there are a few simple rules which, if followed, will go far to ensure a well-behaved and attractive tree. Old worn-out shoots must always give way to fresh young stems; "youth will be served, my masters," and especially in climbing roses on walls. It is a good plan, annually or biennially, to cut down one or two old stems with the object of encouraging fresh ones from somewhere near the base. When young, strong growths appear, they should be trained, not perpendicularly, but

6

as nearly horizontally as possible. If allowed to grow upright, they will start into growth only at the top.

The best time to cut out the old stems is as soon as the chief crop of flowers is over, which, on wall roses, is usually in July. Needless to say, old stems must not be sacrificed indiscriminately, for the roses most worthy of growing against walls are not so prodigal of fresh ones as, for instance, Dorothy Perkins. A good deal of reliance has to be placed on the side shoots from the older stems for a display of flowers. In late February the side shoots are shortened to within three or four buds of their base. If the training of all fresh stems is as nearly horizontal as possible, the tree will eventually assume the form of a fan, and this is the ideal shape at which to aim. It follows that the stems of the second year will be fastened to the wall a few inches above those of the first year, and so on, so that gradually the rose mounts higher and completes the resemblance to the fan. The growths should never be trained across, but always parallel with each other, and there should be at least eight or ten inches between them to allow room for the side shoots that will subsequently develop.

An important detail in the cultivation of wall roses, and one that is frequently neglected, is watering. The soil at the foot of walls and fences receives less than its fair share of rain, and may be dry when the ground in the open garden is moist. Water should be given to roses on walls twice a week from May until the end of August, the soil being thoroughly moistened. Liquid manure and plain water may be given alternately.

CHAPTER X

ROSES FOR ARCHES AND PILLARS

THE number of roses suitable for covering arch and arbour, pillar and pergola, is almost illimitable nowadays, and the need for caution in making a selection is, therefore, all the more necessary. Some supports, such as the stone pillars of a pergola, may be far too beautiful to smother with rampant roses ; while others, for instance, a rustic arch or summer-house, is attractive in proportion to the wealth of its leafy, and, in due time, flowering canopy. Among roses for arch, arbour, summer-house, trellis, and rustic pergola, there are probably none so satisfactory as the wichurajana varieties, for they are distinguished by quick growth and shining, persistent foliage no less than by abundant blossoming, and they need the minimum of attention. Such, for instance, as Dorothy Perkins, Alberic Barbier, Hiawatha, René André and many others, grow rampantly, and in the course of a season or two make a delightful show. The multiflora roses, represented by Crimson Rambler, Blush Rambler, Tea Rambler, Hélène, and others, are almost equally satisfactory, though they have not the persistent foliage that is such a charm of the Dorothy Perkins type of rose. Many old favourites are still used for covering similar supports, notably Bennett's Seedling, Félicité Perpétue,

Aimée Vibert, Flora, Alister Stella Gray, Rêve d'Or, and Reine Olga de Wurtemberg, and all are worthy roses.

If the beginner were to give his roses the positions they need, keeping the vigorous Ramblers to the arbours and arches and trellises in the open garden, and the tender Teas and Hybrid Teas to the warm walls, his garden would provide fewer disappointments and greater delights.

The initial planting is all important. If it is well and properly carried out the roses make a vigorous start; if indifferently performed, years may pass before the support is satisfactorily covered. For each plant a hole two or three feet across, and of similar depth, should be dug out; if the garden soil is poor, it should be replaced with loam with which rotted manure to the extent of one-third is mixed together with a pint of bonemeal to each bushel of soil. It is wise to fill the hole with this some days in advance of planting so that it may settle down. A firm soil is of the first importance; the compost ought to be trodden down as it is put in. If the garden soil is loamy there is no need to import turf, but some manure and bonemeal may be mixed in with advantage. It is poor gardening, and especially poor rose growing, to cramp the roots of a Rambler in a small hole. You may even neglect it in subsequent years without great detriment to the show of bloom if it has been firmly planted in good soil, for a climbing rose that is well established is, as a rule, very well able to look after itself.

A pillar or pole finely covered with a rose, leafy and



ARCHES OF ROSES SPANNING A WALK BETWEEN FLOWER
BORDERS



ROSE CLIMBING KAISERIN AUGUSTA VICTORIA (H.T.),
CREAMY YELLOW, IN SOMERSET

ROSES FOR ARCHES AND PILLARS 85

in full bloom, is a fascinating sight, and one to which even the beginner may look with every hope of success, if, in addition to careful initial planting, he will choose the proper sorts. There are two distinct classes from which to make a choice—those that give of their best in one glorious show at midsummer, and others, that flower more or less throughout the season. Tausendschön is one of the loveliest of those belonging to the first-named group, while Trier is a worthy representative of the others. The remarks on pruning and tending in the chapter on "Roses for Walls" apply to some extent to pillar roses, for they are liable to get bare at the base, a state of things that, if allowed, detracts from their charm. Hard pruning the first spring after planting will ensure vigorous growth from the base for a year or two, but then the trouble begins, and one is faced with the problem of keeping the roses in perpetual youth, as evidenced by leafy, flower-laden shoots from tip to base. Something may be done to ensure this if the stems, at pruning time in March, are trained round the pole or pillar, serpentine fashion. If allowed to remain perfectly upright, the stems of most varieties will start into growth at the top only, but the act of bending them, as described, forces all the buds to develop. This, in association with the practice of cutting down one of the oldest stems in March, will, as a rule, keep pillar roses healthful and attractive, if, in addition, they are well manured. Probably half the unsightly pillar roses one sees are starved; it is astonishing how greatly improved they are by weekly applications of liquid manure made by soaking

a bag of soot or horse or cow manure in a large tub of water, diluted with an equal quantity of water before use.

It is not often that one sees pillar roses really well grown, yet they are very beautiful, and it is only as pillar roses that some varieties are seen at their best. I have, I think, never seen a more brilliant rose picture than in a garden at Bath a few years ago, where the variety Wallflower, having large bright-red blooms, was grown on pole. The latter were smothered in gorgeous colouring—so free were the flowers that the leaves were almost hidden. Few beginners realise that the rose is what gardeners call a "gross-feeding" plant, that is to say, it can scarcely be given too much plant food of the right sort when it is established, and pillar roses are especially benefited by this treatment.

CHAPTER XI

TEA ROSES

THE Tea-scented roses are the offspring of the Chinese *Rosa indica odorata* introduced to this country about a century ago. Persistent cross-fertilisation and selection throughout several generations have given us a race of Tea roses of increased hardiness. Fifty years ago Tea roses, with few exceptions, were grown under glass, but we may now enjoy many of them by giving them ordinary out-of-door cultivation. They are still liable to be damaged in severe weather, and some kind of protection becomes necessary in all except warm and sheltered gardens. But it is so easily provided by heaping a small mound of soil over the base of those grown in bush form, or by using bracken or straw to protect the shoots of standards, that comparatively little trouble is entailed. Tea roses generally are of slender, almost twiggy growth, forming spreading bushes of varying height. The flowers are altogether delightful. When given ordinary cultivation they are small in comparison with those of Mrs. John Laing, for example, but they are usually of perfect form, very dainty and neat, and fragrant with their delicate characteristic scent.

A type of Tea rose lacking in fine form, and little more than semi-double, has lately come into prominence,

and is recommended for bedding or massing for the sake of colour effect. General Shablikine, Corallina, and Betty Berkeley are representative varieties, but they seem to lack the fascination of such a perfect little bloom, for instance, as Madame Antoine Mari, although when seen in a mass they make a fine display.

All Tea roses bloom very freely in September and October, as well as in June; in fact, they are rarely ever out of bloom during the summer months, and quite good flowers may often be cut in November, and, in sheltered gardens, even till Christmas.

They are not successful in cold, heavy land, unless this is first well drained or made lighter by the addition of such materials as ashes, road scrapings, leafmould, strawy manure, etc. Readers having light, well-drained land may attempt the Teas with every hope of success. The warmest spot in the garden ought to be given up to them, so that they may be sheltered as much as possible from inclement weather in winter, and enjoy all the sunshine of summer. Planting should be completed early—in late October, if possible, or at least by the middle of November—so that the bushes may become established before the cold, wet weather sets in. If this cannot be accomplished, planting may be carried out in March and April, or even in May, but in the latter month it would be necessary to obtain plants in pots. On heavy land much may be done towards ensuring a good start to Tea roses by placing some fresh, light, sandy loam about the roots, instead of using the border soil.

The necessity for protection has already been referred to. The soil should be heaped over the base of the bush roses whenever signs of severe weather are apparent; it is a wise plan to remove it if mild weather should follow and continue, as it so frequently does in the southern counties, otherwise the stems become soft and are then more liable to suffer. Bracken thrust among the shoots of the standards and tied on with string, placing it especially at the base of the shoots, usually ensures their passing through the winter fairly successfully. The protective coverings must be removed in good time in spring, say about the middle of March.

Tea roses for exhibition are best grown as half-standards. Many of the best exhibition varieties are much superior in this form. The half-standard, or even the dwarf standard (on a stem eighteen inches high), may be more readily protected in winter than the full standard.

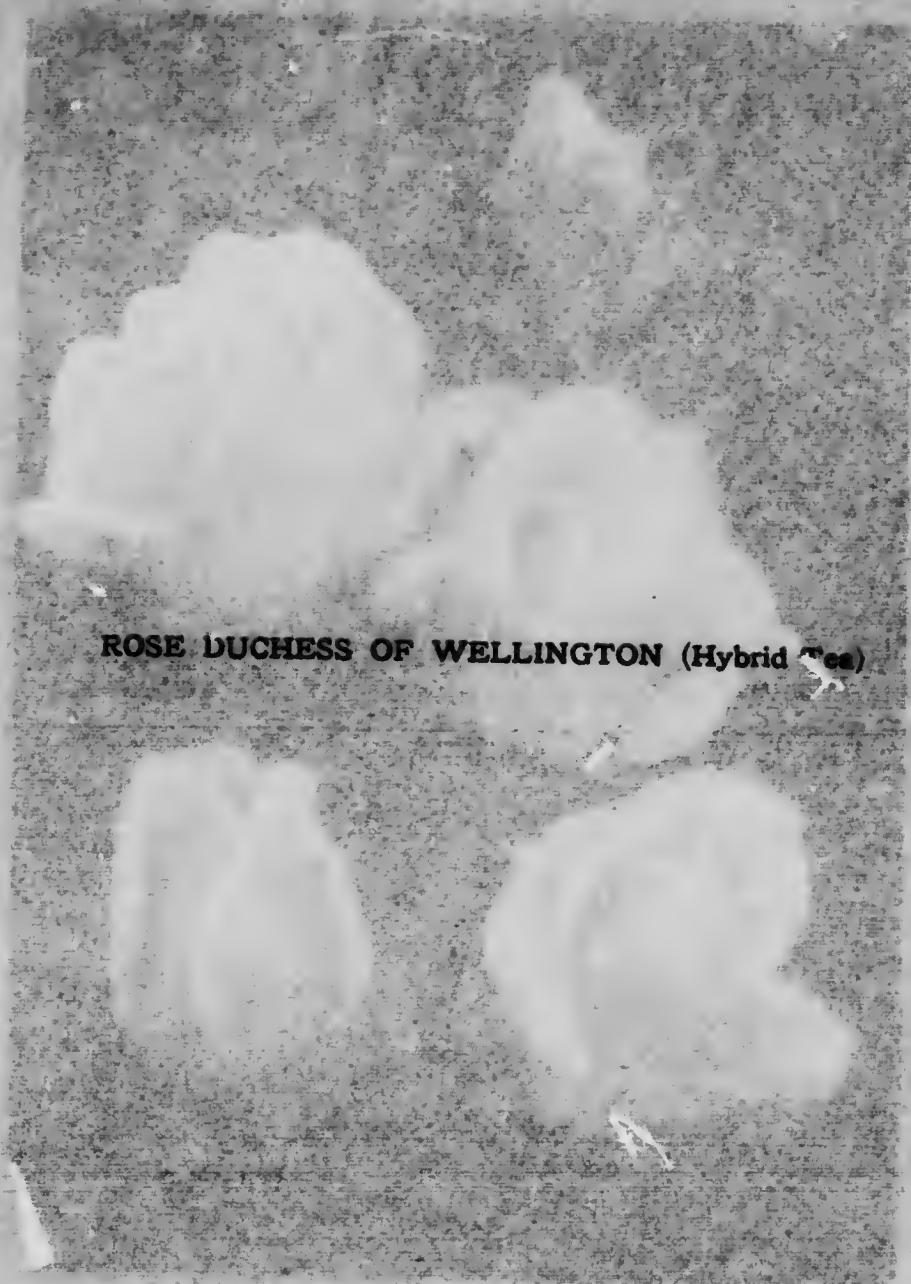
The pruning of Tea roses in bush form gives one very little to do; in fact, as a rule, the less they are pruned the better, except in the March following planting. On this occasion the shoots ought to be shortened by half or two-thirds, if indeed, as is likely, they have not died back to that extent. Tea roses form a number of small twiggy, weakly growths that cannot be expected to bloom. These should be cut out at pruning time in March; those that remain will need shortening very slightly. Tea roses seem to succeed best when allowed to grow more or less naturally. Hard pruning, as becomes

necessary with Hybrid Perpetuals, and in a lesser degree with Hybrid Teas, does not meet with their approval.

Tea roses should also be planted against sunny walls wherever opportunity offers. They make astonishing progress if well cared for. Varieties such as Lady Roberts, Maman Cochet, White Maman Cochet, and Marie Van Houtte will cover quite large spaces. We have seen plants of the latter reaching a height of some twelve feet, and of almost similar width, yielding supplies of exquisite blossoms throughout the summer and autumn.

Among the climbing Teas there are some very delightful roses suitable for warm, sunny walls. They have the great advantage over rambling roses, too often grown in such choice positions, that they yield flowers throughout the summer and autumn, and even into winter. Similar pruning and training to that recommended for the climbing Hybrid Teas is suitable; the stems should, especially in the earlier years, be trained as nearly horizontally as possible, so that fresh growths may develop from the lower part of the tree. Most of the blooms will be obtained from side shoots developing on the matured stems; these cannot be dispensed with until they are worn out, or there are other young stems to replace them. The side shoots, or laterals, as they are commonly called, need shortening in February or early March. About two-thirds should be cut off. It is useless to attempt the climbing Teas on sunless walls; they need sunshine and warmth. A well-drained and carefully prepared border, as described in the chapter dealing with roses on walls, is also most necessary. If he is able to

gree
val.
walls
hing
erts,
Van
seen
elve
s of
mn.
ght-
the
own
gh-
ter.
for
uld,
ori-
lop
will
red
are
ace
nly
ch.
to
ed
re-
th
to



ROSE DUCHESS OF WELLINGTON (Hybrid Tea)





provide these essentials, the amateur may look forward with hope and without misgiving to the enjoyment of some of the loveliest, though much neglected, roses. The distinction between a climbing and a non-climbing rose is not so definite as those might imagine who regard only rambling roses as climbers. Many free-growing Hybrid Teas and Teas will climb, if planted in a suitable border at the foot of a sunny wall, and very lightly pruned.

A SELECTION OF VARIETIES

(These bloom in summer and autumn, and more or less throughout the season)

Alexander Hill Gray.—One of the newer Tea Roses, of deep lemon-yellow colouring and perfect form. The growth is vigorous. Unfortunately, the blooms have weak stalks, and therefore droop.

Anna Chartron.—A pretty little flower; cream, with carmine-rose margin. A favourite buttonhole rose. Growth is vigorous.

Anna Olivier.—One of the best of the Tea roses for garden display; it blooms very freely and continuously. The small blooms, of good form, are pale rose and buff shades. Growth is vigorous. A fine rose for all purposes.

Beauté Inconstante.—Those who do not demand constancy in colouring from their roses will be pleased with this variety, which is most variable. The flowers are generally copper and red—they may be either or both. It is free blooming and fragrant, and grows well.

Betty Berkeley.—An attractive red Tea rose without much pretence to form of flower. But it is distinct and showy, and helps the garden show. It is of free growth and blooms well.

Catherine Mermet.—A beautiful, finely formed rose of flesh-pink colour. Practically useless in the open garden ; a favourite for cultivation under glass.

Comtesse de Nadaillac.—One of the loveliest of the Tea roses, of apricot and rose shades, often grown by exhibitors. It needs planting at the foot of a warm, sunny wall, up which it will climb. It is a rose the novice should avoid.

Comtesse Festetics Hamilton.—A free-growing and profuse flowering variety, with blooms of copper and carmine shades. It lacks perfect form, but is one of the best for garden display. It is much admired for its rich colouring.

Corallina.—An invaluable rose for the garden ; it is one of the best autumnal-flowering roses. The blooms are not of ideal shape, but they are most freely produced and of distinct coral red colour. The plant is tender and often suffers badly in hard winters.

Dr. Grill.—A very old Tea rose, but vigorous and excellent for garden display. The flowers, which are not of exhibition form, are variable in colour, of copper and rose shades. One of the parents of Madame Abel Chatenay.

General Shablikine.—A free-flowering variety for the garden, having salmon-red blooms, lacking in ideal form. It grows freely, and makes a good display.

G. Nabonnand.—An excellent Tea rose for the garden,



ROSE MADAME HOSTE (T.). CREAM YELLOW. MAKES A GOOD STANDARD



A REMARKABLE PLANT OF THE OLD TEA ROSE CLOTH OF GOLD
IN THE WEST OF ENGLAND

with good blooms of pale rose and yellow colouring. Free growing and very fine in autumn ; during September and October it is often the best rose in the whole garden.

Harry Kirk.—A rose with sulphur yellow buds, that grows quite well, and flowers moderately freely. The blooms are rather thin, and often become straw colour when fully out. Very liable to mildew.

Hon. Edith Gifford.—An attractive variety, white with pinkish centre. Fairly vigorous and moderately free blooming.

Hugo Roller.—A very dainty flower ; lemon-yellow, tinged with rose. It is a poor grower, though possibly worth including in one's collection for the sake of a few of the very pretty blooms.

Jeanne Phillipe.—A lovely rose with nankeen yellow buds. One of the best yellow garden roses, though thin.

Lady Hillingdon.—A new rose of remarkable orange yellow colour, and possessing long, shapely buds. It is a great favourite with market growers for cultivation under glass and satisfactory in the garden.

Lady Roberts.—The blooms of this variety are small, of good form, and attractive apricot colour, shaded with copper. One of the best Tea roses.

Madame Antoine Mari.—This is a delightful rose, one of the very best Teas for the garden. The blooms, though small, are of exquisite form, and are freely produced. The plant grows freely, soon forming a fair-sized bush. The foliage is of an attractive bronze-purple tint that sets off the lilac rose flowers admirably.

Madame Chédane Guinoisseau.—A pretty rose, with small, shapely, yellow blooms, that should be grown by those who are fond of roses for buttonholes. It is only moderately vigorous.

Madame Constant Souper.—Deep yellow shaded peach. A fine show rose, and occasionally good as a garden flower.

Madame Cusin.—An attractive rose, with fragrant blooms of a distinct shade of rose; they are of such good form as often to be seen at exhibitions. It is not very strong growing, and adds little to the garden show.

Madame Falcot is another good buttonhole rose, of which many are found among the Teas; the flowers are small, of nankeen-yellow colour, and are freely produced by fairly vigorous plants.

Madame Hoste.—Quite one of the best Teas for the garden. The flowers are of fair size, excellent form, and come freely on healthy, vigorous plants; they are of creamy colour.

Madame Jean Dupuy.—A small, though very pretty, variety, yellow edged with rose. The flowers are freely produced and growth is good. Much hardier than many Teas.

Maman Cochet.—A great favourite for exhibition; the blooms, soft rose and salmon, are of exquisite form, and of good size. It is a fairly satisfactory rose for the garden, though the White Maman Cochet is better. Both make excellent standards. Succeeds best in rather poor soil.

Marie Van Houtte.—A very charming rose, creamy-



ROSE MRS. HERBERT STEVENS. A NEW WHITE TEA THAT
PROMISES WELL



ROSE MADAME ANTOINE MARI. A CHARMING TEA ROSE FOR THE GARDEN. OF LILAC ROSE SHADE



ROSE AMATEUR TEYSSIER (H.T.). A PRETTY ROSE, WHITE WITH LEMON YELLOW CENTRE

yellow, with bright rose edge. It needs a border at the foot of a warm wall to be seen at its best. Makes a good standard. Splendid on a warm wall.

Medea.—A fine Tea rose, with rather big blooms of good shape. Often shown at exhibitions. Growth is vigorous, though the plant is not very free flowering, and only recommended to exhibitors.

Meta.—Crushed strawberry colour, suffused with yellow. Very fragrant.

Miss Alice de Rothschild.—One of the newer Teas, having large, well-formed citron-yellow blooms. The growth is fairly vigorous. Promises to be a good garden variety.

Molly Sharman Crawford.—White, vigorous. A fine novelty.

Mrs. Alfred Westmacott.—White, tinted pale rose. Very beautiful.

Mrs. B. R. Cant.—A very free-flowering Tea, with rose-red blooms that make a good display in the garden, but have few claims to fine form.

Mrs. Edward Mawley.—A great favourite with exhibitors; the blooms are large, of perfect form, of carmine and salmon-pink shades. The growth is only moderately strong, and it cannot be recommended as a garden rose.

Mrs. Foley Hobbs.—Among the newer Tea roses this is one of the most promising. The blooms are large, of good form, ivory-white with faint tinge of pink, and growth is vigorous.

Mrs. Herbert Stevens.—This, too, is a novelty that shows much promise. It grows strongly, has perfectly

formed flowers, white tinged with faint pink ; it is said to be unusually hardy for a Tea rose.

Mrs. Myles Kennedy.—A beautiful rose, with large, pale, buff-white blooms of perfect form. It is, however, not much use in the garden, though valuable to the exhibitor.

Mrs. Sophia Neate.—A hardy and vigorous Tea, an excellent variety for the garden. If one may grumble at all, it is because the blooms do not come quite so freely as they might do. The colour is bright salmon and rose-pink, and the flowers are of fair size and good form.

Nita Weldon.—A blush-white Tea that can be recommended. It grows well, and has large, full blooms of good form, which, however, droop badly.

Papa Gontier.—An old and favourite Tea rose, with lovely rose-crimson buds that too soon become full-blown flowers. It is only fairly strong growing, though it blooms freely.

Paula.—A charming Tea for the garden ; the sulphur-yellow, fragrant flowers are small, though freely produced by a plant that grows well.

Peace.—Those who grow that charming Tea rose, G. Nabonnand, already described in this list, will probably care to have Peace, which is a cream-white "sport" from G. Nabonnand. It is an excellent autumn rose.

Princesse de Sagan.—A good rose for bedding or massing. It is only of moderately vigorous growth, but its deep-red blossoms, with no claims to fine form, make a striking display.

Souvenir de Pierre Notting.—The buds of this variety

are long and shapely, and of apricot-yellow colouring, though they are none too double, and in hot weather quickly open to full flowers. It grows well, and is quite a good Tea rose for the garden.

Souvenir de S. A. Prince.—An attractive Tea rose, with pure white, shapely blooms. It is of satisfactory growth, and to be recommended for garden and show. It is a white "sport" from *Souvenir d'un Ami*, a variety of silvery-rose colour that is equally satisfactory.

Sulphurea.—A good Tea for the garden, growth is satisfactory, and the sulphur-yellow flowers are freely produced.

W. R. Smith.—A fine new Tea rose, creamy-white, with pink shading. It grows well, and gives freely of good blooms. One of the best new Teas. The bloom is liable to come divided.

CLIMBING TEA ROSES

Belle Lyonnaise.—A beautiful rose, with large yellow blooms, which are not very freely produced.

Billiard et Barré.—This variety has distinct and very stiff growths, and bears lovely orange-yellow flowers, which are very beautiful. It is not free blooming.

Bouquet d'Or.—Somewhat similar to *Gloire de Dijon*; the blooms, which are of fairly good shape in the bud, are creamy-yellow with deeper centre.

Climbing Devoniensis.—Rather a tender rose, but when established, very vigorous, and bearing its small cream-coloured flowers freely.

Climbing Niphetos.—Only worth growing under glass ; the flowers are long and shapely and pure white, but the stalks are weak.

Climbing Papa Gontier.—A climbing form of the old rose of similar name. The buds are long and shapely, of rose-red colour, but they are thin and soon become full blown.

Climbing Perle des Jardins.—The buds of this rose, which is a "sport" from the bush variety of the same name, are very pretty though small, and the colour is golden-yellow.

Dr. Rouges.—An attractive variety with red flowers shaded with bronze-yellow.

Duchesse d'Auerstadt.—A lovely rose, but shy flowering. It is of good growth on a warm wall, but the shapely flowers, which are bright yellow with deeper shading, are usually sparsely produced.

E. Veyrat Hermanos.—Another lovely rose, though not generally very free of its flowers, which are of apricot-yellow and rose.

Gloire de Dijon.—A familiar rose that is being gradually ousted from gardens. It blooms early and late, and the flowers are of fair form ; cream-yellow with salmon shading.

Madame Bérard.—An old and vigorous Tea, with copper-yellow flowers of fairly good form, though, like those of other Dijon Teas, they are rather "lumpy," and liable to come misshapen.

Madame Jules Gravereaux.—This variety has big, well-formed blooms of buff-white with rose and yellow

shading, and is often grown for exhibition. It is disappointing as a garden rose.

Madame Jules Siegfried.—A beautiful cream-white rose of good form.

Madame Moreau.—A distinct and attractive variety, with copper-yellow flowers.

Noella Nabonnand.—A magnificent rose, still classed as a Tea, though it seems more closely allied to the Hybrid Teas. It grows vigorously, and bears very long, fragrant buds of the most vivid velvety-crimson shade; they soon become full blown, but in the bud are splendid. It flowers freely.

Papillon.—An old rose, with small and very dainty buds of pink and white and copper shades. Rather tender. A charming variety for buttonholes.

Souvenir de Madame Léonie Viennot.—A rose of fascinating shades of colour, yellow shaded with red. The blooms are of good size and freely produced.

CHAPTER XII

CHINA ROSES

THESE delightful roses are more generally known as "Monthly Roses," for the reason that they are practically ever-blooming, as, indeed, are the Tea roses that originated from the same species, *Rosa indica*.

They are really perpetual flowering in a suitable climate, but with us they cannot, of course, withstand frosts, hence we only have them in bloom from May to December. Individually, their blossoms are rather insignificant, and even some of the newer creations are flimsy, yet they possess a simple beauty that proves irresistible, and are well worth massing in beds or borders.

The Common Pink is the hardiest, and it is more generally planted than any other variety. It flowers so persistently that blossoms may be cut practically any day between May and November. Rosarians would do well to plant the Common Pink China more frequently against the posts or pillars of pergolas over which summer-flowering roses are trained. It would continue to give flowers long after the Ramblers had faded. Although not strictly a climber, the Common Pink China, if very lightly pruned, soon grows several feet high. It associates with Madame Laurette Messimy to form a delightful hedge about four feet high.

as
ac-
hat

ble
and
May
ther
are
oves
lers.
more
wers
any
l do
ently
hich
inue
aded.
Pink
feet
ny to



THE COMMON PINK MONTHLY ROSE AS IT GROWS IN
SOMERSET



A JAR OF GARDEN ROSES

The Scarlet or Crimson China, *Sanguinea*, has brilliantly coloured flowers, and is quite one of the showiest roses; it makes quick progress when planted against a south wall, a position for which it seems very suitable, especially if the building is of light-coloured brick. The Climbing *Cramoisie Supérieure* is a fine climber, though it is not very free flowering until well established. *Fabvier* is splendid for bedding; the bright red flowers are poised on strong, erect stems, and make a first-rate display. *Cramoisie Supérieure*, if a name counts for anything, ought to be the best of the crimsons, but the old scarlet variety, *Sanguinea*, is, I think, to be preferred on account of its freer flowering. Raisers of new varieties have lately given us fresh colours in China roses by cross-breeding them with the Teas.

One of the best of the newer sorts is *Comtesse du Cayla*; the blossoms are of most attractive colouring—copper and carmine, shaded orange and yellow. It does not bloom freely enough to warrant its being planted for effect in the garden, but it is indispensable for cutting for table decoration. *Madame Eugène Régal*, copper and rose, and its yellow "sport," *Chin Chin*, are lovely roses; so, too, are *Queen Mab*, apricot and orange; *Arethusa* and *Aurore*, shades of apricot and yellow. *Charlotte Klemm* and *Leuchtfleur* are two brilliant red China roses, though closely allied to the Hybrid Tea, and both are fragrant.

An old favourite is *Mrs. Bosanquet*, with dainty blush white blossoms; and *Ducher*, pure white, is a useful

variety, very free blooming. The so-called Green rose, *viridiflora*, is classed with the Chinas. It is but a freak flower, and only worth growing as a curiosity. The "flower" consists entirely of the sepals.

Some of the latest novelties are distinguished by lovely tinting, and are closely allied to the Tea rose, in fact, they would be more correctly described as China Teas. In such a group I would place Alice Hamilton, Corallina, General Shablikine, Princesse de Sagan, and some others usually found among the Tea roses in catalogues.

China roses pay for generous cultivation, and should not be hard pruned. Old shoots should be freely removed in March, the younger ones being shortened by about one-third. Many varieties make fine standards, and their long-flowering season forms an additional reason for growing them in this form.

CHAPTER XIII

MOSS ROSES

YEARS ago every garden had its Moss rose bush, its Maiden's Blush, and Common Monthly, associated with Lavender, Lad's Love, and Gilliflowers. It would seem that the Moss rose has gone out of fashion, and that it has been displaced largely by the Hybrid Tea. But there is an old-world charm about its mossy buds that appeals to most of us, and no rose garden seems really complete without it. I would put in a plea for these old roses, and if room can only be found for one, let it be the common pink Moss.

How did the Moss rose originate? No one seems to know. The Dutch growers introduced it to this country some three hundred and fifty years ago, and it is generally supposed to be a "sport" from the Cabbage or Provence rose. This seems very feasible, for I have seen blooms of some Moss roses without the mossy covering, and having the appearance of the old Provence. The Moss roses are very liable to "sport"; some of them give seed very freely, and many varieties have originated; no fewer than seventy are enumerated in the catalogue published by M. Jules Gravereaux.

The presence of the curious mossy covering on the

buds has inspired the following very charming story of the birth of the Moss rose :

“ The angel of the flowers, one day,
 Beneath a rose tree sleeping lay—
 That spirit to whose charge is given
 To bathe young buds in dews from heaven.
 Awaking from his light repose,
 The angel whispered to the Rose,
 ‘ O, fondest object of my care,
 Still fairest found where all are fair,
 For the sweet shade thou’st given to me
 Ask what thou wilt, ’tis granted thee.’
 ‘ Then,’ said the Rose, with deepened glow,
 ‘ On me another grace bestow.’
 The Spirit paused, in silent thought,
 What grace was there that flower had not ?
 ’Twas but a moment—o’er the Rose
 A veil of moss the Spirit throws,
 And, robed in Nature’s simplest weed,
 Could there a flower that Rose exceed ? ”

The comparative scarcity of Moss roses in our gardens is probably owing to the fact that growers bud them upon the Manetti, a stock that should be banished from gardens as far as possible. Fine, showy plants are obtained the first year, but when planted in the amateur’s garden they are very liable to die. If own root plants were obtained, far greater success would result. It should be possible to supply own root plants because they are readily produced by layers. Moss roses like good cultivation, and when established should be enriched with manure. At pruning time, late in March, the shoots should not be cut back too hard except at the first pruning. Then they may be shortened to within

three or four buds of the base, but in succeeding years leave them about twelve inches long. Old shoots need to be cut out, for the best blooms are produced by growths of the previous summer.

Moss roses make good low hedges. Some varieties develop into fairly tall hedges, and all make excellent standards, a form in which they appear to great advantage. Some kinds will grow into big bushes, and perhaps there is no lovelier sight in June than a bush of Comtesse de Murinais, with its delicate blush-white blossoms.

Caterpillars and aphids seem especially fond of Moss roses, and an early search should be made for these pests.

Moss roses are charming also when grown in pots. They are potted in autumn, and given treatment similar to that advised in another chapter for roses in pots. It is best to use comparatively small pots, say those six inches wide, for the best results follow when the roots are restricted.

These roses are most conveniently increased by layering. If a plant is purchased, say, of the variety *Gracilis* (which is like the common Pink, but of stronger growth and more abundant flowering), put out in the garden, and hard pruned in March, the resulting growths may be layered in July. It would, however, be better to wait until the following year before layering. Even if fresh plants are not needed, the practice of layering has much to commend it, for if the growths are left undisturbed, a big plant is soon formed.

The so-called Perpetual Moss roses are very dis-

appointing, as few give blossoms a second time in one year. The Moss rose is really summer flowering only, and should be regarded as such. It is preferable to keep them apart from the Perpetual roses, so as not to spoil the effect of the latter in autumn.

As to varieties of Moss roses really worth growing, the best white is White Bath. Other good whites are Blanche Moreau and Comtesse de Murinais. The best pink is Gracilis, and other good varieties of similar shade are the Common Pink, although this is not wanted if Gracilis is grown; Salet, Little Gem, Gloire des Mosseuses, and the Crested Moss, which has a curious parsley-like envelope instead of the usual moss. Zenobia is a lovely pink variety, not at all heavily mossed, but having delicious fragrance. Good red Moss roses are Laneii, Baron de Wassanaer, and Venus. Two very dark crimsons are Celina and James Veitch. Space should also be found for the pretty miniature Moss De Meaux.

CHAPTER XIV

PENZANCE SWEET BRIERS

SOME twenty-four years ago, the late Lord Penzance conceived the happy idea of making use of the common Sweet Brier, which, as everyone knows, has fragrant foliage, in his cross-fertilising experiments, which he had taken up as a hobby. He endeavoured to create roses having the rich colours to be found in the old-fashioned Hybrid Chinese, Hybrid Bourbon, and Austrian Brier roses, and having also sweet-scented leaves. He was singularly successful in blending the colour of the wonderful Austrian Copper rose with the Sweet Brier fragrance of leaf in the lovely Penzance Brier, Lady Penzance. The rich scarlets and pinks among the Penzance Briers were derived from the Hybrid Chinese and Hybrid Bourbons, roses that are now rarely grown. Even though in his eightieth year, Lord Penzance has described how fascinating the work was to him in an article which appeared in "The Rosarian's Year-Book" of 1896.

Penzance Briers are well adapted for forming hedges six or eight feet high. If desired, they may be kept about five feet high, by pruning and training. They are well suited to shrubbery planting, providing they are not overcrowded or placed in the shade. I love to

see them growing as isolated bushes, and practically unpruned. If allowed space for proper development, they are superior in beauty to many of our flowering shrubs commonly planted. While their season of flowering is early June, they yield quite a nice display of blossom a second time if the seed pods are not allowed to form, although the fruits, which become bright scarlet when ripe, are almost as beautiful in autumn as the flowers are in summer.

When grown as hedges, the plants should be set three feet apart, and I would advise planting in deeply dug soil, and feeding with liquid and other manures occasionally to encourage vigorous growth. Penzance Briers form splendid pillar roses. I have seen them fully fifteen feet high, their growths kept in columnar form by means of hoops. They are well worth planting in open spaces in the copse or game covert of any estate. I am sure there are still possibilities of obtaining noteworthy results by intercrossing the existing varieties, or even by raising seedlings from self-fertilised seed. Lord Penzance tried this latter method, but many of the seedlings reverted to the common Sweet Brier, although some gave very satisfactory results.

Lord Penzance sent out sixteen varieties, but I do not recommend the reader to plant all of them unless he has unlimited space, for several are very much alike so far as the colour of the flowers is concerned. Some of the best are Anne of Geierstein, crimson; Catherine Seyton, rose pink; Flora McIvor, blush and white; Julia Mannering, pink, perpetual flowering; Lady Pen-

lly
ey
bs
is
om
m,
en
ers

et
ly
es
ce
m
ar
ng
e.
e-
or
rd
ne
h

do
ss
ke
ae
e
;
n.



ROSES IN A GARDEN IN THE SUBURBS MRS. STEWART CLARK
(ROSE COLOUR) ON THE RIGHT, ALBERIC BARBIER (PALE
YELLOW) ON THE ARCH



ROSE CREPUSCULE (N.). OF COPPER, YELLOW AND PINK
SHADES. SPLENDID FOR A PILLAR OR WEST WALL.

PENZANCE SWEET BRIERS 109

zance, copper and yellow ; Lucy Bertram, crimson ; Meg Merrilees, crimson ; and Minna, white and blush. It was a happy inspiration to name them after some of Scott's heroines. Each seems to suit the other perfectly.



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



4.5

2.8

2.5

5.0

3.6

3.2

2.2

4.3

2.1

3.6

5.5

6.3

7.5

8.5

10

4.0

2.0



1.8



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

CHAPTER XV

PERNETIANA ROSES

THESE form quite a new class of roses, and the following is the story of their birth. An eminent raiser of new roses, Monsieur Pernet-Ducher, of Lyons, conceived the happy idea of using the old Persian Yellow Brier rose in his experiments in cross-breeding, and succeeded in producing the remarkable variety, Soleil d'Or. This had for parents the Persian Yellow and the Hybrid Perpetual, Antoine Ducher.

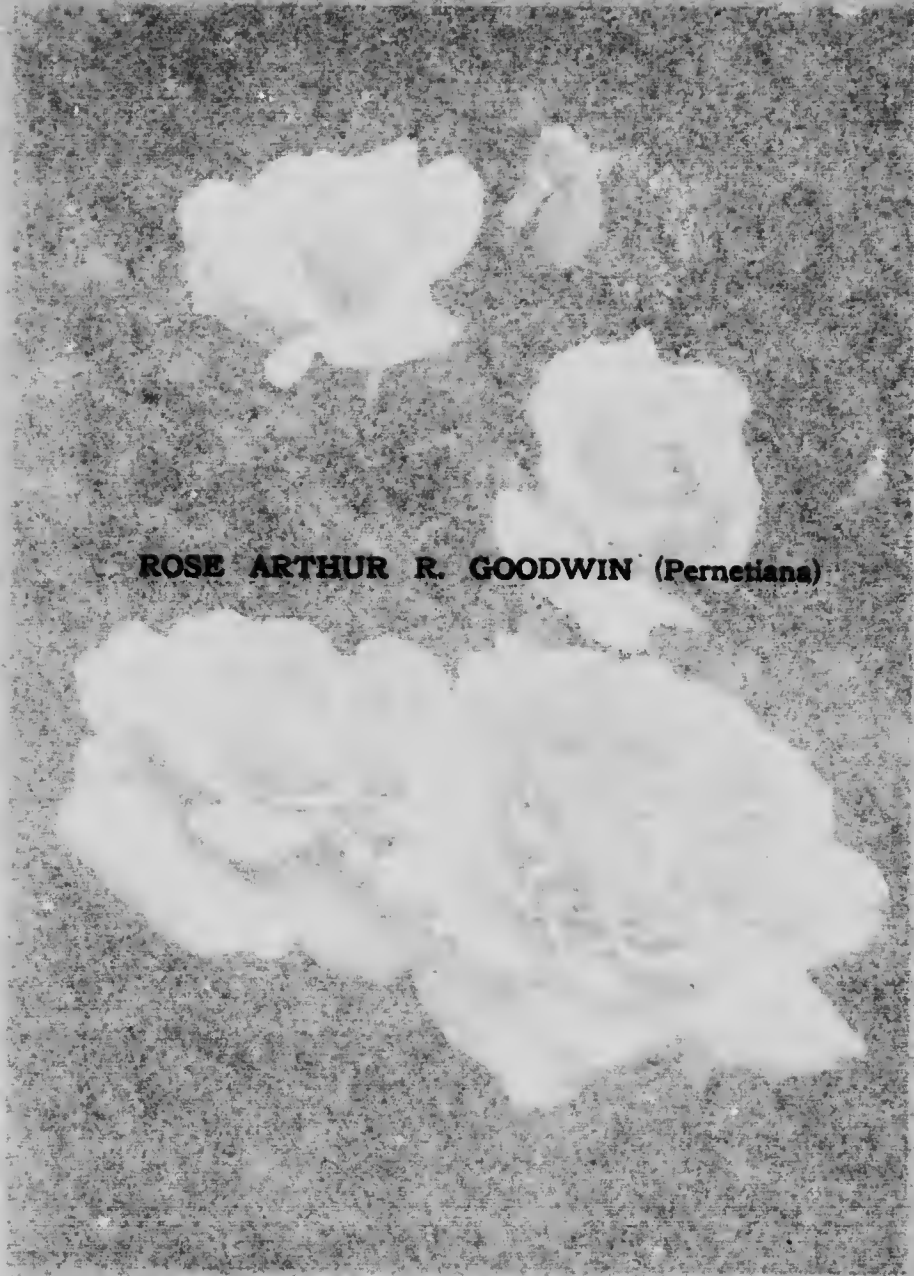
This wonderful novelty resembles the Persian Brier in its reddish bark and vivid green foliage, while the flowers, although large and double, something like those of a Hybrid Perpetual, are of rich orange-yellow, shaded with Nasturtium red. From Soleil d'Or, which was introduced in 1900, M. Pernet-Ducher has raised many seedlings of novel and unique colouring. A number of these have been introduced; they bear a marked resemblance to the Persian Brier rose in growth and prickles, and the foliage of most sorts, though glistening, has a brier-like appearance.

It is, therefore, fitting that the distinctive name of "Pernetiana," should be given to this new type of rose, seeing that it is of M. Pernet-Ducher's creation. If precedent were needed, it is afforded by the Noisette

owing
f new
d the
r rose
ed in
This
ybrid

Brier
e the
those
aded
was
many
er of
sem-
kles,
as a

e of
ose,
pre-
ette



ROSE ARTHUR R. GOODWIN (Pernetiana)





roses, which were named after M. Noisette, and the Penzance Briers, after Lord Penzance.

Already there are two sections of the Pernetiana roses: the members of one resemble Soleil d'Or in their erect, sturdy growth, and rather shy-flowering propensity in autumn; and those of the other, which includes the Lyons rose, bear a striking resemblance to the Hybrid Teas, and yet have most decided Brier-like growth and foliage. One wonders what the result will be in a few years' time when these remarkable roses are blended, as they surely will be, with other kinds. I am sanguine enough to believe that we shall yet obtain through this race a perfectly hardy golden-yellow rose with the form and substance of Maréchal Niel.

The following is a brief descriptive list of the varieties in commerce at the time of writing; those marked with an asterisk have a marked similarity to their first parent, Soleil d'Or, the others resemble Hybrid Teas:

Arthur R. Goodwin.—Copper and orange, passing to salmon-pink. Free flowering and hardy. Buds of exquisite shape and colour, open flowers flat.

Beauté de Lyon.*—A rose of remarkable colouring: coral-red, slightly shaded with yellow. The foliage is greenish-grey, and the growth covered with formidable prickles. Even as a shrub it is arresting, but the colour of the flowers compels the attention of every one.

Cissie Easlea.—A novelty of which experts have a high opinion. The growth is vigorous and the flowers are very freely produced. The leaves are so large and shining that one is reminded of those of the Camellia. The colour

of the open flower is clear saffron-yellow, with carmine centre, passing to Naples yellow. It was raised from Madame Mélanie Soupert crossed with Rayon d'Or.

Constance.—This was exhibited at the International Show at Chelsea, in 1912, for the first time, and evoked much praise for its wonderful golden colour and fine form.

Deutschland.*—Large and full; golden-yellow, tinted with rose and orange.

Gottfried Keller.—The blooms are semi-double, and of the colouring of Lady Penzance Brier—coppery-yellow. Flowers freely in autumn.

Johannisfeuer.*—Large and full, golden-yellow, the edges of petals golden-red.

Juliet.*—A lovely variety, and as fragrant as beautiful. Colour, old gold on outside of petals; inside, rich carmine-red.

Les Rosati.*—Deep carmine, the outside of the petals cerise-red, stained with yellow at base of petals; free flowering and vigorous.

Louis Barbier.—This is a climbing rose. The semi-double flowers are of bright coppery-red colour, passing to rose and purple.

Louise Catherine Breslau.—Somewhat similar to Arthur R. Goodwin. The buds are coral-red, the open flower flushed with yellow, and fading to pink. Very attractive. It is almost impossible to describe this rose faithfully, so subtle are its tints. It will surely be in every garden when better known.

Lyons Rose.—The colour is very variable, sometimes



THE LYONS ROSE (H.T.), SALMON PINK AND YELLOW SHADES



ROSE RAYON D'OR (PERNETIANA), GOLDEN YELLOW

of pinkish-salmon, but generally of intense coral-red and chrome-yellow. This rose has leaped into popularity as none other has done in modern times. It is seen to perfection as a standard, for the blooms have weak stalks.

Madame Edouard Herr n.—A rose of great beauty: the colour is perhaps best described as nasturtium red or flame shaded with terra-cotta. It was first shown at the International Flower Show at Chelsea in 1912, and there gained the highest honours.

Madame Ruau.—The colour is carmine and shrimp-pink. The flower is of cupped form. A lovely bedding rose.

Mrs. George Beckwith.—The most intense golden-yellow rose yet known, several shades deeper than *Rayon d'Or*. All should possess this variety.

Rayon d'Or.—With the exception of the variety just named, this is the deepest golden rose we have, and makes a most striking display in the garden. As a bedding rose it is invaluable. The glistening foliage gives this variety an added charm.

Rodophile *verreaux*.—A beautiful single-flowered climbing rose. The bloom is carmine-pink with yellow centre, fading to white. It is summer flowering only.

Soleil d'Angers.*—A "sport" from *Soleil d'Or*, its flowers resembling this variety in all save colour, which is of crimson and gold.

Soleil d'Or.*—A large, rather ill-shaped bloom, but of unique colour, described above.

Viscountess Enfield.—Copper and rose, shaded yellow, the inner petals tinged with carmine. This variety is

scarcely to be distinguished from the Hybrid Teas, except for the novel colouring of the flowers.

Willowmere.—A very vigorous variety, of erect branching growth. The buds are long, and of coral-red colour, the expanded flowers are rich shrimp-pink, shaded with yellow in the centre. Undoubtedly one of M. Pernet-Ducher's best productions, and may replace the Lyons rose.

The vigorous varieties, as, for example, *Soleil d'Or* and *Juliet* marked with an asterisk, should be pegged down instead of being cut back, or they may be grown as pillar roses, the shoots being slightly shortened only. The varieties more closely allied to the Hybrid Teas need similar pruning to the latter.

CHAPTER XVI

SOME OLD-FASHIONED CLIMBING ROSES

ONE often hears the Rambler roses referred to as though they were of modern introduction. It is true that the Crimson Rambler gave an impetus to this class of rose when sent out some twenty years ago, and since then we have had Dorothy Perkins and innumerable others that have quite changed the appearance of rose gardens. Nevertheless, there were climbing roses generations ago, many of them of such value that they are still grown to-day, though overshadowed by the modern varieties.

The AYRSHIRE ROSES are a delightful group. Their slender shoots depend with natural grace and form an elegant plant, especially when budded upon tall stems. In many large gardens weeping standards of Ayrshire Roses form a charming feature. Bennet's Seedling is one of the best. It becomes simply smothered with small white blossoms.

The writer once saw a plant of this rose growing in a park, and apparently untended, that had a circumference of one hundred and twenty feet. Dundee Rambler is scarcely worth growing, as it is little better than the hedgerow roses, but Ruga is delightful. It somewhat resembles a Tea rose in growth and bloom, and is

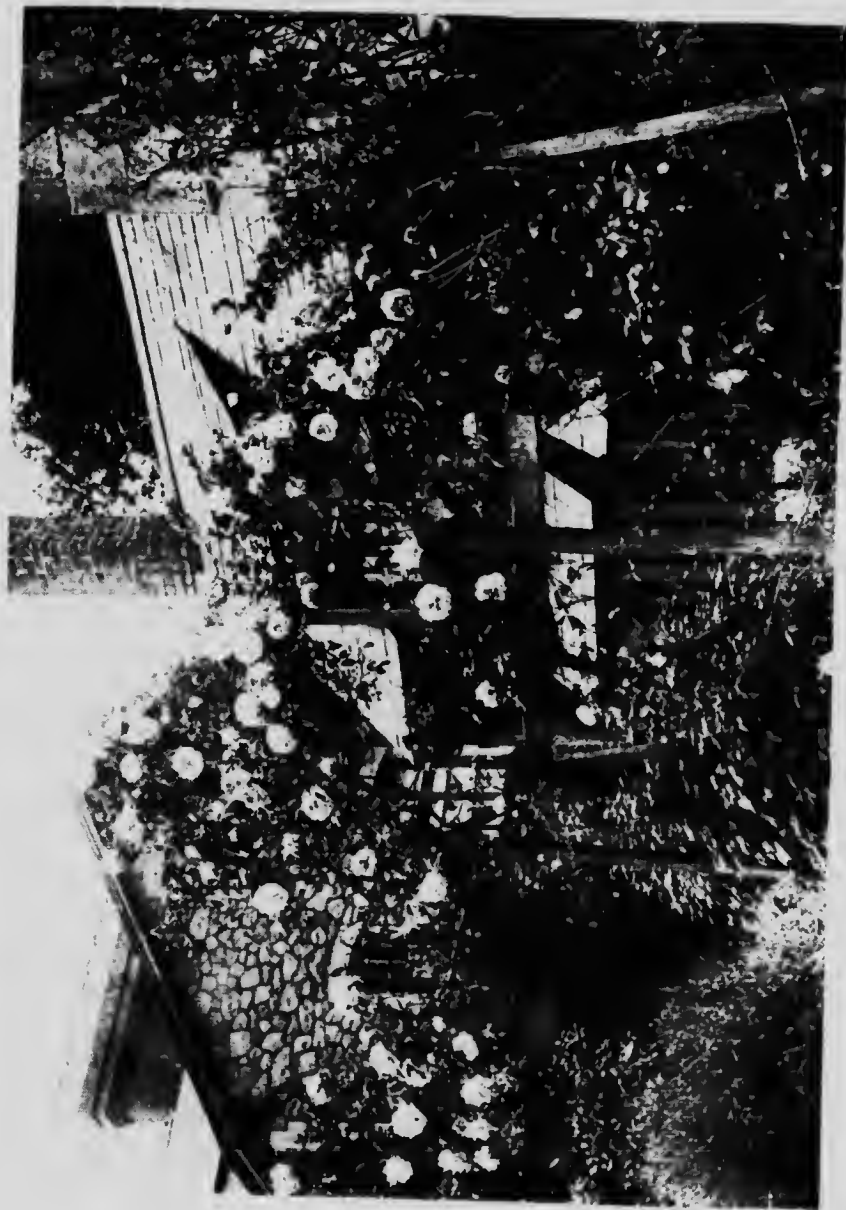
apparently a hybrid between the Ayrshire and a Tea rose. Queen of the Belgians is a good creamy-white flower, and Virginian Rambler has pretty pinkish buds.

THE EVERGREEN ROSES.—Closely allied to the Ayrshire are the Evergreen or Sempervirens roses. Though termed evergreen, their leaves do not persist nearly so long as those of many modern Ramblers. Félicité Perpétue is an exception, for in a mild winter the foliage is retained until spring. This is a lovely rose, with compact rosettes of pinkish buds and white flowers. It is still one of the best Ramblers; sometimes it is referred to as the Seven Sisters Rose. Flora is a good variety with compact blooms, reminding one of a miniature Captain Christy. Leopoldine d'Orléans and Myrianthes Rénoncule are also good, but Félicité Perpétue and Flora are the two best.

THE NOISSETTE ROSES used to be strongly represented in gardens, and it is matter for regret that they are so neglected nowadays, for all give a second display of bloom, and some are scarcely ever out of flower. With few exceptions, however, they are only suited for walls, and are not hardy enough for the open garden. Aimée Vibert is still one of the best of the Noisettes, and its large clusters of snow-white flowers during late summer and autumn are always welcome. This old rose has also handsome, glistening foliage. Lamarque, although needing a warm wall, is one of the prettiest climbers, and its long, shapely buds are very useful, too. The colour is pure white, with lemon shading in the centre. Desprez à fleurs jaunes is seldom seen now. It used to be a great

Tea
white
buds.
Ayr-
ough
early
cité
iage
om-
It is
rred
riety
ture
thes
and

nted
e so
y of
With
alls,
mée
l its
mer
has
ough
and
lour
prez
reat



THE BEAUTIFUL OLD CLIMBING ROSE BLAIRII NO. 2 (BLUSH PINK)



ROSES ON A WAYSIDE COTTAGE

SOME OLD-FASHIONED CLIMBING ROSES 17

favourite, and has reddish, buff-coloured flowers. It is a vigorous grower, retaining its foliage during the greater part of the winter. Isabella Gray is reputedly the parent of Maréchal Niel. It has large, full, globular blooms of deep colouring. La Biche is a very dainty white Noisette Rose; and before William Allen Richardson was known, Ophirie was in great demand. It may still be seen on the walls of many old houses. Solfaterre, with sulphur-yellow flowers, is well worth planting on a warm wall or in a greenhouse. Many old exhibitors remember Triomphe de Rennes, a rose of delightful form that has, alas! proved too difficult to grow, as was the case with Cloth of Gold, yet both many sometimes be seen growing luxuriantly on cottage walls, quite uncared for.

THE BOURSALT ROSES were widely grown years ago. They are very distinct, being almost free from thorns, and having very flexible shoots, usually of a reddish tinge. In fact, the stems of the old varieties, Amadis and Inermis Morletti, are as finely coloured in autumn as the red dogwood. The blush Boursault is often seen upon old cottages to-day; so, too, is Gracilis.

THE HYBRID CHINESE ROSES were frequently used as climbers for walls and arches. One of the very best of these is Blairii No. 2, with large pink blooms.

THE BANKSIAN ROSES, lovely as they are, require warm walls to grow them to perfection. This, no doubt, is the reason of their being so seldom seen to-day. Yet a good specimen is worth a long journey to see.

CHAPTER XVII

OLD-WORLD ROSES

UNTIL early in the nineteenth century all the roses grown were summer flowering only. We had none of the glorious autumnal-blooming varieties that to-day make our gardens in September and October so full of delight. But the roses then grown were, above all things, fragrant. Would that our newer roses were equally so! No useful purpose would be served by describing roses that are not obtainable now, therefore, in these notes on old-world roses, only such varieties are named as can still be purchased. I believe that if we but extended to these old roses the same care that we give to modern varieties, we should be surprised at their beauty.

HYBRID CHINESE ROSES.—Rose lovers happening to be in Lyons early in June, should make their way, as the writer has done, to the public park; there is to be found a splendid collection of these old-world roses, all labelled carefully and correctly. There are some of which the individual blooms rival the best Hybrid Perpetuals. Years ago, when these roses were grown in pots, it was not unusual to see plants carrying one hundred flowers, all open together, of such varieties, for instance, as Paul Perras, Charles Lawson, and Juno—and within recent years Juno has been finely

exhibited at the Temple Show. The Hybrid Chinese make splendid pillar roses and standards. Other beautiful varieties of this group are Blairii No. 2, one of the loveliest of old roses; Chénédoie, Coupe d'Hébé, and Madame Plantier. In pruning, leave the young growths three or four feet long, even longer if grown as pillar roses, and cut away old shoots freely at the end of July. Then there are the

Moss ROSES, so rarely seen now in modern gardens, to which reference is made in another chapter.

Allied to the Moss roses are the PROVENCE OR CABBAGE ROSES. The old Cabbage rose is admitted to be the most fragrant of all roses, and the plants are remarkably long lived. I have heard of beds of this rose over eighty years old. The Crested Provence has beautiful fern-like growths surrounding the buds and blossoms. In alluding to Provence roses, one must not forget the Miniature Provence, De Meaux, one of the tiniest of blossoms, and used for edging rose beds. Moss and Provence roses require rather hard pruning, and old shoots should be cut out in July. Manure should be given every autumn, and liquid manure during summer. Among the

DAMASK ROSES is the true York and Lancaster, a variegated rose, not especially beautiful, and really scarcely worth growing except for its old-world charm. A much more beautiful sort is Rosa Mundi, now generally sold as York and Lancaster. This has big, wide flowers, crimson with broad splashes of white. The old Crimson Damask, from which it "sported," is also a charming

rose, with almost single blossoms, having a bunch of golden stamens for centre. Sometimes the word damask is used to denote rich crimson colour, yet most of the true Damask roses are of light shades.

Madame Hardy is a lovely pure white; La Ville de Bruxelles is rose-pink, and Leda, delightfully tipped with pink on a white ground. These roses need pruning only moderately in March. In July the oldest growths should be cut out.

THE MAIDEN'S BLUSH ROSES are forms of the white rose (*Rosa alba*). The best one is Celeste, which has beautiful long buds of a clear and lovely shade of pink. The commonest form met with in many a cottage garden has large flattish, pale-blush flowers. A very delightful sort is Félicité Parmentier, with shell-pink centre, and a white variety is Madame Legras. Little or no pruning is required beyond cutting out the old growths in late summer.

GALLICA ROSES.—These are probably the most ancient of all. The blossoms are flat, some very double with a curious green growth in the centre. They are very fragrant, and decidedly worth growing in shrubbery borders. They can be layered very easily; from one plant one may make a large spreading bush by layering the growths in July. They are very early flowering, appearing just after the Scotch Roses in early June. The best sorts are: Ohl, Kean, Surpasse tout, Duchess of Buccleuch, and d'Aguisseau—a rose, I believe, that was instrumental in imbuing the late Dean Hole with an enthusiasm for roses. There are some pretty variegated sorts in this

OLD-WORLD ROSES

121

group, such as *Œillet Parfait*, *Village Maid*, etc. Prune moderately in March, and cut out the old growths in July.

AUSTRIAN BRIERS.—These are so lovely by reason of their unique colouring that they cannot be left out of a collection of old roses. The *Single Yellow* and *Austrian Copper* are remarkably beautiful. Pruning is confined to cutting off the tips of the shoots, and now and then cutting out old growths. *Austrian Copper* is often used as a wall plant, and most beautiful it is when thus grown. The *Persian Yellow* has blossoms of as rich a colour as *Maréchal Niel*, whilst *Harrisonii*, with small double yellow blossoms, makes a most lovely hedge.

The **SCOTCH ROSES** are also among the most precious, especially the double white and double yellow, and there are some pretty single rosy-crimson sorts. They are best grown as hedges or free bushes, and left unpruned except that now and then old growths should be cut out. They bloom early in May, and are the real harbingers of the rose season.

The **BOURSAULT** or thornless roses are not now much grown, indeed, there is only one variety—*Morletti*—that I consider is wanted. The old *Amadis*, or crimson, is very early in bloom, and for this reason may be tolerated, but its purplish colour is not admired.

The **BANKSIAN ROSES** must not be overlooked, for where they succeed they are most picturesque, draping a sunny lofty wall or tree with a veritable shower of blossom. They much resent pruning, and prefer a hot, well-drained position. They are excellent when grown

under glass. The old White has quite a violet-like odour.

The BOURBON ROSES are now little grown. One variety, *Souvenir de la Malmaison*, will, perhaps, never die out, and few autumnal roses can surpass a well-flowered bush of it. The other varieties of the group are perhaps of little value, although some are very charming, such as *Acidalie*, *Madame Pierre Oger*, and *Gloire des Rosomanes*.

t-like

One
never
well-
group
very
and

CHAPTER XVIII

SOME NEW CLASSES OF ROSES

DURING recent years the rose has made remarkable progress, and we are now able to enrich our gardens with such classes and varieties that not so very long ago were undreamt of. Who, for instance, could have imagined such developments in the Hybrid Tea rose possible in such a short time, yet now they are the most popular of all roses? It was once thought that Tea roses would never be grown with much success out of doors in this country, yet we possess a race of these delightful roses that are practically hardy, and often, in southern gardens at least, pass through the winter with little or no protection.

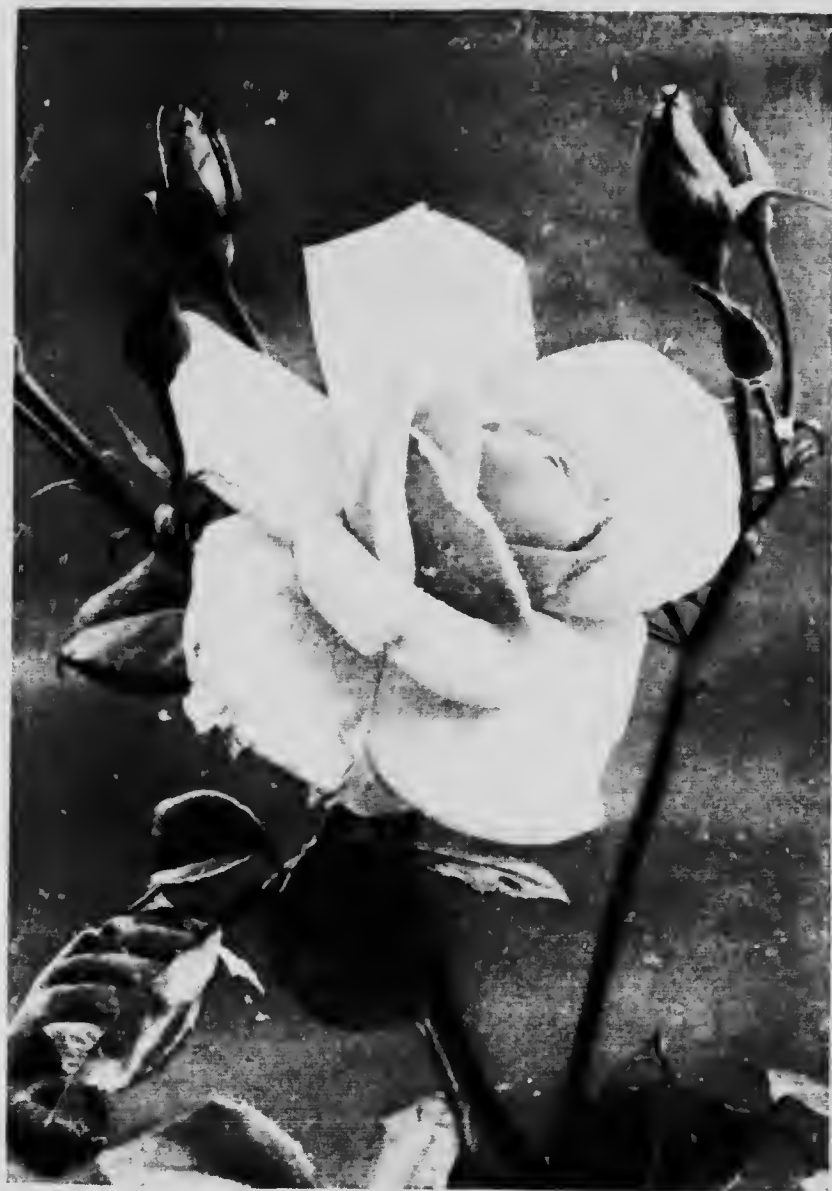
In another chapter reference is made to the creation of that wonderful new group, the Pernetiana roses. Probably the roses that will next startle a delighted rose world are perpetual-flowering Ramblers. There are already several that blossom freely a second, and even a third time, and their number is bound to increase. Semi-climbing perpetual-flowering varieties will assuredly follow—roses that may be grown as bushes or on low pillars. There is already one notable instance in the variety Trier, which blossoms throughout the summer. Owners of large gardens would find such roses of great value for planting in groups on the lawn.

We do not ask so much of our flowering shrubs, such as the Lilac, the Mock Orange, or the Weigela, but somehow it is not thought at all unreasonable to demand that roses should be always in bloom.

The Wichuraiana roses have made scarcely less astonishing progress than the Hybrid Teas. They are peculiarly amenable to cross-fertilisation. Already the Wichuraiana has been crossed with a Moss rose, and the resulting variety, Wichmoss, possesses the characteristics of both parents. The cross-breeding of the Wichuraiana with the dwarf Polyantha roses has evolved the new race of Pompon Wichuraianas, in which the spreading, creeping habit of the latter is most marked; they are most suitable for covering the ground beneath standard roses.

The dwarf Polyantha roses themselves are advancing by leaps and bounds. It seems only the other day that Guillot introduced the first variety, namely Ma Pâquerette; now there are nearly one hundred sorts. The large-flowered Polyantha roses are even more noteworthy. Each bloom is almost as large as a Tea rose, and they are constantly produced. A variety named Grüss an Aachen is very fine, and should be in every garden. Some novelties that are not yet in commerce possess extra large blossoms in clusters on rigid growths, and they will be much sought after when known. A race of many coloured monthly roses, as hardy and as free-growing as the Common Pink, will doubtless be evolved in course of time, and they will prove of the greatest value as bedding roses. We shall possibly also have

bs,
but
and
ess
are
the
the
er-
ur-
the
ad-
ey
th
nc-
ay
Ma
ts.
te-
se,
ed
ery
ce
hs,
ce
ee-
ed
est
ve



ROSE ENTENTE CORDIALE (PERNETIANA), CREAMY YELLOW



ROSE GRUSS AN AACHEN (POLYANTHA). ORANGE-RED
AND YELLOW

SOME NEW CLASSES OF ROSES 125

really perpetual-flowering Moss roses. At present the so-called perpetual Mosses are really perpetual in name only.

Perhaps the greatest boon of all would be a group of really mildew-proof roses. Will this be obtained? I think it will. So much time is occupied, and so much labour caused by the attacks of this fungus that the amateur would be only too glad of more roses of the type of Madame Edmée Metz, whose foliage is of such a leathery substance as to defy the mildew.

Really perpetual-flowering Penzance Sweet Briers would find a ready welcome. Some few yield blossom very sparsely in the autumn, but we want them to be as gay then as in June.

CHAPTER XIX

ROSE HEDGES

HE who plants a hedge of roses, expecting it to grow thick and bushy like privet, and, like privet, to keep neat and trim, will be woefully disappointed. The nearest approach to a rose hedge of this kind is furnished by the China or Monthly and the dwarf Polyantha roses, though still a great gulf divides it from the ordinary hedge. Though you cannot obtain a close, firm screen with roses, they may be used most appropriately to encircle the rose garden, or to give informal dividing lines where such are needed. And if they fail to afford the privacy that is one of the essentials of a real hedge, they compensate fully by producing blossoms as well as leaves. So many roses are suitable for growing in this form, that all tastes may be suited. One may plant a high hedge with the luxuriant wichuraiana, Sempervirens, or Ayrshire, or with varieties of all three classes combined. The multiflora roses which are not quite so rampant are also suitable for the same purpose; so, too, are the Penzance and Japanese Briers (*Rosa rugosa* varieties), while climbing Hybrid Teas and Noisettes may be pressed into service. For hedges of some three to four feet high, such vigorous dwarf roses as Caroline Testout, Frau Karl Druschki, Hugh Dickson, or Mrs.

Stewart Clark might be planted. The Austrian Briers and the lovely little Scotch roses form attractive hedges, though their flower display is fleeting. For a low hedge there is nothing to surpass the China or Monthly roses, especially the pink and crimson varieties. In sheltered southern gardens the vigorous Tea roses are suitable for a hedge, such, for instance, as Marie Van Houtte, Sombreuil, Souvenir d'un Ami. Delightful low hedges are formed by the dwarf Polyantha roses. The plants are naturally of bushy growth, and they blossom throughout the summer months.

In preparing to plant a hedge of roses, a piece of ground three feet wide ought to be dug two feet deep in late summer, manure being freely intermixed. Planting is carried out early in autumn. The bushes should be in a double row, each plant in the row being about four feet apart in the case of the climbers, two feet for the ordinary dwarfs such as Caroline Testout, and fifteen inches or so for the China and dwarf Polyantha roses. As one naturally wishes to have the base of the hedge as well furnished with leafy stems as possible, it is advisable, in the March following planting, to cut down all the roses to within six inches or so of the base, though this is not absolutely necessary in dealing with the wichuraiana sorts. Supports are necessary for high hedges, and are best afforded by stout oak posts placed six or eight feet apart, four or five rows of thick wire being stretched between them. In a very windy garden, such as one near the sea, for instance, the supports need to be strengthened by stays at the base. Much may be

done towards preventing the base of the hedge from getting bare by spreading out the stems of the vigorous roses, and training them in the shape of a fan ; in fact, this is an excellent practice to adopt, as far as may be possible with all roses grown as a hedge. The arrangement of the varieties needs some consideration so that one may have blossoms on some part of the hedge throughout summer and autumn. This end will be achieved if a summer-flowering and perpetual-flowering rose are planted alternately.

One can do little in the way of pruning, when the hedge is established, beyond cutting out old, weakly stems to make room for fresh growths ; in fact, little will be needed beyond an occasional thinning out if the stems are tied out as described, though old, useless growths must be freely cut out. A rose hedge, if well planted, will last for many years, if given annual dressings of farm manure in March and frequent applications of liquid manure in May and June. Roses on their own roots are to be preferred to those budded on the Brier or any other stock, for if suckers develop freely they become a great nuisance, and in a rose hedge may be overlooked very easily.

Pests are very troublesome on hedge roses, chiefly because the bushes are not pruned so much as others. Maggots, especially, often quite spoil the show of bloom unless checked. The best remedy is to poison their food by spraying the plants with arsenate of lead solution made with the following ingredients : Arsenate of lead, one ounce ; acetate of lead, two and three-quarter ounces ;

ROSE HEDGES

129

water, ten gallons. Place the two substances in water and stir until both are dissolved, then add the rest of the water. Apply the mixture very carefully, with a syringe that produces a very fine spray, when the leaves are unfolding in April.

ge from
vigorous
in fact,
as may
arrange-
so that
through-
achieved
rose are

hen the
weakly
ct, little
at if the
useless
if well
dressings
tions of
wn roots
or any
become
erlooked

chiefly
others.
f bloom
n their
solution
ead, one
ounces ;

CHAPTER XX

THE WILD ROSES OF BRITAIN

BOTANISTS differ considerably in their ideas respecting the number of species of rose which are found growing wild in the British Isles. Some regard very minute differences as sufficient justification for the creation of distinct species, whereas others take a broader view, and when a species is found to differ somewhat in habit, hairiness, or colour of flowers, but to show connecting links between the most distinct forms, no difference in name is made. Still other authorities are found whose views are a modification of those of both extremists, and well-marked forms of species are given varietal names. In the following notes the classification of the Student's Flora of the British Isles, by the late Sir J. D. Hooker, has been followed, with slight modifications.

British roses, as a rule, are very amenable to cultivation. Some may be given a place in the garden, but as a rule they are better fitted for park or woodland. Cultivated forms of several species are, however, well suited to conspicuous positions in the garden, and merit representation amongst collections of roses. Very little pruning is required, all that is necessary being the removal of the older wood if the bushes are becoming too dense. It sometimes happens that the branches are

rather badly affected by scale, and in such cases the plants soon suffer if steps are not taken to clean them. This may be most readily accomplished by spraying the bushes once a week during late April and early May with paraffin emulsion, using half an ounce to one gallon of water.

DESCRIPTION OF SPECIES

Rosa agrestis.—This is found in hedges and on waste ground in many parts of the country, notably in Surrey and Sussex, whilst well-marked forms of it occur in Warwickshire, Yorkshire, and in Ireland. It is closely related to the Sweet Brier, *Rosa rubiginosa*. Differences may, however, be noticed in the looser growth and by there being little or no fragrance in the leaves. It forms a bush four to five feet high, with rather small leaflets, pinkish flowers one and a half to two inches across, and scarlet, ovoid fruits.

Rosa arvensis (synonym, *Rosa repens*) is well known by reason of its double-flowered variety, which is an old favourite in gardens. It is familiarly known as the Ayrshire rose. It is easily recognised amongst other British roses by reason of its long, slender, trailing branches, which are rather sparingly armed with stout, hooked prickles. The leaves are made up of five or seven dark green leaflets, and the white flowers, which are about two inches across, are borne in clusters during June. Under normal conditions it may be found as a bush four to five feet high, but when it can find the support of a bush or small tree it may grow ten or twelve

feet high. It enjoys a wide distribution from Southern Scotland through England and Ireland to the middle of Europe. *Rosa arvensis flore pleno* is the best-known variety. It bears double white flowers, two to three inches across, with the greatest freedom, and is an excellent plant for the wild garden.

Rosa canina, the familiar Dog rose of our hedges, is the commonest and best known of the various British roses. Its largest proportions are attained in rather heavy, loamy soil, and when well placed it is sometimes met with fifteen to eighteen feet high. More often, however, it is found from six to eight feet high, with, loose branches clothed with bright green leaves made up of from five to seven leaflets and armed with numerous strong, hooked prickles. The flowers appear from the end of May to July, and are usually pale red or white deeply suffused with red, and one and a half to two inches across. They are followed by oval or oblong fruits which are scarlet and orange in colour when ripe. It is widely distributed through the British Isles, for it is met with from the extreme north to the Channel Islands, and occurs from sea-level to an altitude of 1,350 feet in Yorkshire. Its principal use is as a stock upon which various kinds of garden roses are budded. Numerous forms have been given varietal names. These differ from the type in growth, colour, and size of flowers, or colour or shape of fruit.

Rosa hibernica.—Some doubt exists as to whether this is really a species or not, and the suggestion has been made that it may be a hybrid between *Rosa canina*

uthern
middle
known
three
is an

edges,
British
rather
etimes
often,
with,
de up
erous
n the
white
o two
blong
ripe.
for it
annel
le of
stock
dded.
These
e of

ether
has
nina



RAMBLING ROSE. RUGA. AN OLD FREE-FLOWERING VARIETY WITH PALE ROSE COLOURED
BLOSSOMS



ROSE RENÉE WILMART URBAN (H.T.) BLUSH AND SALMON
COLOURING

and *Rosa spinosissima*. Colour is lent to this idea by the plant being intermediate in character between those two. On the other hand, if it is a hybrid it must have appeared in several different localities, for it is reported from Sutherland, Northumberland, Ireland, and other places. Growing from two to four feet high, it forms upright or arching branches clothed with rather strong prickles and leaves composed of from five to seven leaflets, and bearing pale pink flowers during May, June, or July, according to where the plant is growing. The fruits are globular and orange coloured.

Rosa involuta.—As in the case of the last-named, there is considerable doubt as to this being a true species, the suggestion having been made that it is a natural hybrid between *Rosa spinosissima* and *Rosa tomentosa*. Its affinities are nearer those of the former than the latter, for it is of rather dwarf, compact growth, forming a dense bush two or two and a half feet high, with numerous small, twiggy branches, amply clothed with prickles and small leaves made up of five or seven tiny leaflets; it bears, during June and July, white or pinkish flowers from one inch to one and a half inches across. As a rule, the flower clusters are small, rarely more than three blossoms appearing together. A striking resemblance to *Rosa spinosissima* occurs in the fruits, for they are small, round, black, and clothed with small bristly hairs. *Rosa involuta* has been reported from several places in Scotland and Ireland, and is also found on the Continent. Numerous forms have been given varietal names, but very few are in cultivation.

Rosa micrantha.—Forming a bush four to six feet high, this rose possesses some characters resembling those of *Rosa rubiginosa* and others which are more suggestive of *Rosa canina*. Thus the leaves, though rather like those of the Dog rose, have a faint scent like Sweet Brier. It forms rather long, arching branches, and bears pinkish flowers in June; they are little more than an inch across. It is found from Scotland to the Channel Islands, and also occurs in Ireland. The variety *Briggsi* is a stronger-growing plant with larger flowers and fruits.

Rosa mollis.—This is one of the most beautiful of British roses. Common in Scotland, it is one of the most conspicuous shrubs in various parts, and is plentiful in Skye and other islands, whilst it spreads southwards into England and is also found in Ireland. Growing from three to six feet high, it may be recognised by its upright branches, soft, hairy leaves, and pretty red flowers which are two inches or so across. The fruits are oval in shape and deep red, with a few bristly hairs on the surface. It is one of the best kinds for the wild garden.

Rosa rubella.—Doubt exists as to whether this is strictly British or not, although it is described in Smith's "English Botany." In fact, it is now regarded as a synonym of *Rosa pendulina*, which is considered to be a natural hybrid between *Rosa spinosissima* and *Rosa alpina*. Forming a small bush, it reaches a height of two and a half or three and a half feet. The rather small leaves may have as many as eleven leaflets. The bright

red flowers are followed by rather conspicuous reddish fruits. It is not recorded as having been found often in the British Isles, but has been more frequently met with on the Continent.

Rosa rubiginosa, the Eglantine or Sweet Brier, is the most popular of British roses, for its fragrant foliage adds a delightful perfume to the garden, especially after rain. A mature bush may be six or eight feet high, but it is frequently met with between two and three feet in height. The branches are closely set with strong, hooked prickles; and the leaves, which are composed of from five to seven leaflets, are covered with tiny oil glands on the under surface, from which the fragrance emanates. The blush-tinted flowers are one and a half to two inches across and are borne freely during June. They are followed by orange and red fruits which ripen in August. This rose is to be met with in all kinds of gardens throughout the country, whilst the special attention of rosarians was directed to it about twenty years ago, when Lord Penzance succeeded in rearing hybrids between it and various other roses. Some of these have very beautiful flowers, and all have the advantage of possessing fragrant foliage to a greater or less extent. Both the Sweet Brier and the various hybrids, or Penzance Briers, as they are called, make very good ornamental hedges.

Rosa spinosissima.—This is the Scotch or Burnet Rose. It is met with from the extreme North of Scotland to the Channel Islands and is frequently seen as a bush between one and a half and three feet in height,

growing on sandy commons and hill-sides. Sometimes however, it scarcely rises six inches above the ground, and its white flowers, which may be up to two inches across, have then a very singular effect, for at a distance they appear to be borne by the grass amongst which the branches lie. This particular form is met with about the shores of Swansea Bay between Swansea and The Mumbles, and is most effective in June. The normal height of the Scotch rose, however, is about two feet, the intensely spiny branches forming a dense mass bearing small leaves made up of seven or nine leaflets. Strong-growing forms attain a height of three feet or more. The round fruits are black when ripe, bristly, and less conspicuous than those of many roses. Under cultivation many varieties have appeared. Some of these have double, others single flowers, whilst the colour varies from white to yellow, and from white to pink and deep red. Some of the best are *altaica*, a tall-growing kind with white flowers two and a half inches across; *lutea* and *flore luteo pleno*, with single and double yellow flowers respectively; *Harrisoni*, double yellow; *fulgens*, red; *hispida*, pale yellow; *picta*, pink and white; and *rubra*, red.

Rosa stylosa.—Some doubt exists as to whether this is a species or a hybrid between *Rosa canina* and *Rosa arvensis*. It forms a tall bush with white flowers arranged several together in clusters at the ends of short shoots. There are various forms with pink and white blossoms.

Rosa tomentosa.—This bears a resemblance to *Rosa*

THE WILD ROSES OF BRITAIN 137

canina, but the leaflets are more downy, somewhat resembling those of *Rosa mollis* in that respect. It is a vigorous grower, forming strong shoots clothed with stout prickles. The flowers are pink and white and, together with the fruits, resemble those of the Dog rose.

CHAPTER XXI

THE WILD ROSES OF OTHER LANDS

THE exotic species of roses enjoy a very wide distribution; they are found throughout Europe, the temperate and sub-temperate parts of Asia, and North America. Most of them are hardy in the British Isles. A few, however, may only be grown in the warmer counties, whilst two or three require glass protection. As a rule, they succeed without any special cultural attention, providing good loamy soil is given them. The majority do not require regular pruning, although they are improved by being thinned out occasionally. Mildew and insects attack some of the species and cause serious injury if not dealt with as soon as they appear. Spraying with Bordeaux mixture usually suffices to check the former, but in addition to spraying when the white, mealy, fructification stage of the fungus is visible during summer and autumn, the plants must be sprayed once or twice during the following spring, when the young leaves are beginning to unfold, for at that period the dormant mildew spores are becoming active. Scale insects may be destroyed by spraying the plants with paraffin emulsion several times during the latter part of April and early May.

As a rule, propagation is most readily effected by

THE WILD ROSES OF OTHER LANDS 139

seeds, but cuttings of ripened wood placed in a border out of doors in September, or of half-ripe wood inserted in pots of sandy soil in a warm greenhouse in July, may be rooted. It is also possible to increase the plants by means of layers.

Some of the species are very ornamental, and deserve a place amongst general collections of roses, whilst others are well worth growing by reason of the interest attaching to them as parents of the various types of garden roses.

In the following notes, those species referred to in the chapter on British roses are omitted, although most of those are also found wild outside the British Isles.

Rosa Alberti.—This is a rather dwarf-growing rose from Turkestan. It is distinguished by short leaves which are barely one and a half inches long, and made up of from five to seven tiny leaflets; by its sharp, straight spines, and by its small white or yellowish flowers which appear singly from short axillary growths.

Rosa alpina, the Alpine rose, is a native of Europe and is pretty alike whether in flower or fruit. The leaves on a vigorous plant may be six inches long, and made up of seven or nine oval leaflets. The reddish flowers are about one and a half inches across, and are succeeded by rich coral-red fruits, which are oval or globular in shape and ripen during August. The branches are often destitute of, or armed with but few, spines, and the bark is frequently of a deep red colour. It is interesting as being one of the parents of the Boursault rose.

The variety *pyrenaica* is remarkably handsome when in fruit. The fruits are scarlet in colour and one to one and a half inches long. Both this and the type grow from three to five feet in height.

Rosa Banksiæ, the Banksian rose, is a native of China, whence one of its several forms was introduced more than a century ago. Of climbing habit, it reaches a height of upwards of twenty feet, and in the warmer parts of the country bears its clusters of small, white, fragrant flowers freely during summer. The branches bear few, and often no, spines, and the leaves are usually composed of five oblong leaflets. The type has white flowers, but there is a variety *lutea*, with yellow blooms, and both have double-flowered forms. Although the plant grows well on walls in many parts of the country, it only blooms freely in the milder districts.

Rosa blanda, a North American rose growing from two to four feet high, forms a thicket of reddish, upright shoots clothed with glaucous-green leaves, three to four inches long, and bearing its red flowers, either singly or in large terminal clusters, from axillary shoots. The red fruits are small and round, and are conspicuous by reason of the long calyx lobes with which they are crowned. There are several varieties, of which *arkansana*, *Sayi*, and *Willmottiana* are distinct.

Rosa bourboniana.—This is interesting as being the type from which the various Bourbon roses have originated. It is a hybrid between *Rosa indica* and *Rosa gallica*, from which two of our most useful types of roses originated.

when
e to
grow
e of
uced
ches
mer
rag-
bear
ally
hite
oms,
the
try,
rom
ight
to
her
ots.
icu-
hey
hich
the
gin-
osa
of



A GARDEN CORNER OF ROSES AND PINKS



THE OLD NOISETTE ROSE LAMARQUE, PALE LEMON YELLOW
ON A HOUSE WALL IN SOMERSET

THE WILD ROSES OF OTHER LANDS 141

Rosa bracteata, the Macartney rose, a native of China, is one of the most beautiful of all the species, but unfortunately it is not hardy enough for general outdoor culture in the British Isles. In the milder counties it thrives excellently, and many a low wall or fence is made beautiful by its luxuriant growth and flowers. The evergreen leaves are usually composed of from five to nine broadly oval or elliptical leaflets, and the white flowers, which are often four inches across, are produced singly or in clusters during August and September. There is a variety with double flowers, but the typical plant is the more ornamental.

Rosa californica is a strong-growing rose from California, Oregon, etc. Under suitable conditions it attains a height of from five to eight feet. The red flowers are borne in large clusters on the more vigorous shoots and a few together on the weaker branches. The red fruits are rather small, with long calyx lobes. The variety *flore pleno* is low growing, with showy double flowers.

Rosa carolina.—This is a North American plant, from two to four feet high. When growing vigorously the reddish shoots are clothed with a pretty, glaucous bloom which makes them attractive during winter. The reddish flowers may be borne singly from small axillary shoots or in clusters. The variety *nuttalliana* is a stronger-growing plant than the type, and sometimes bears very large heads of flowers.

Rosa cinnamomea, a vigorous rose widely distributed throughout the Northern hemisphere, sometimes attains

a height of eight feet. It varies to some extent in general appearance, and although usually bearing five or seven parted leaves, forms with nine leaflets are known. The leaflets also differ considerably in size, the larger ones being sometimes one and three quarters inches long and one and a half inches wide, whilst others are less than half those dimensions. The spines are slender and numerous, but not very long. From one to eight flowers, which are white tinged with red, are borne together, and they are succeeded by rather large, globular, dark red fruits. There are several varieties, of which *flore pleno*, with double flowers, and *grandiflora*, with flowers larger than those of the type, are the best.

Rosa damascena.—This is the old Damask rose of Persia, a plant which has been widely grown in Eastern Europe and the Orient for a very long period. Some doubt exists as to its being a species, and most people incline to the idea that it originated as a hybrid between *Rosa gallica* and *Rosa moschata*. Much of its charm centres in the delightful fragrance of its blossoms, which are much sweeter than the flowers of many of the newer garden roses. It is largely grown in Bulgaria for the manufacture of rose water and attar of roses. Growing from two to four feet high, it is most frequently seen bearing semi-double light red flowers, two to three inches across, although single-flowered forms are sometimes seen. The variety *versicolor* is distinct and interesting on account of its flowers being striped or blotched with red and white. For this reason it has been given the name of York and Lancaster rose. Some

THE WILD ROSES OF OTHER LANDS 143

forms of *Rosa damascena* may be found with dark red flowers.

Rosa ferox is worthy of mention on account of its being very distinct from other dwarf-growing species of roses. Of quite low stature, its stiff branches are armed with stout, hooked spines, and clothed with tiny green leaves, amongst which the small white, or pinkish flowers, which are barely more than one inch across, appear during June and July. It is a native of the Caucasus.

Rosa Fortuneana was obtained from China many years ago, and is considered to be a natural hybrid between *Rosa Banksiæ* and *Rosa lævigata* rather than a species. The evergreen leaves are usually made up of five lance-shaped leaflets, and the semi-double yellowish flowers are two to three inches across. It is only suitable for the warmer parts of the country.

Rosa gallica, the common rose of Eastern Europe and parts of Central and South Europe, is a very important species, and was the forerunner of many of our garden roses of the present day; the majority of the old fragrant Cabbage roses of bygone days were closely related to it. It is also the parent of the various roses from which the famous attar of roses is obtained. Growing two to three feet in height, it is recognised by its large, often semi-double flowers, which may be white, pink, or red in colour. There are many varieties, of which *centifolia*, with good-sized heads of fragrant, pink, semi-double flowers is very showy. The variety *muscosa* is the type of the numerous Moss roses, a term applied on account of the peculiar moss-like appear-

ance of the calyx lobes of these particular varieties. All are exceedingly interesting and delightfully fragrant. *Provincialis* is another variety worthy of attention, for it is the old-fashioned Provence rose, which has always been renowned for its fragrance. *Pomponia* is a well-marked variety; its rose-coloured flowers are double, and scarcely an inch across, yet they are borne with such freedom that a well-flowered bush is most ornamental.

Rosa gigantea can only be grown in a greenhouse with success, for it is a native of the hills of Burma. Of very vigorous growth, it forms branches at least thirty feet long. The flowers are white or cream-coloured and four to five inches across. Although said to be a wonderful sight in its native country, it has seldom been seen to advantage here, but in the south of France it blossoms remarkably well.

Rosa indica.—This is the original of the Monthly and China roses. It is a native of China and forms a small bush two feet or so high, with showy, fragrant flowers which may be white, pink, or red. As a rule, the blossoms are borne in large clusters, terminating the branches, and flowering is continuous throughout summer and autumn. The type and also some of the varieties are slightly tender and are not suitable for cold districts. *Fravans* is a very sweet-scented variety; *minima* is very dwarf, with small flowers; *monstrosa* is conspicuous by reason of the petals being leaf-like and green; and *sanguinea* is a very useful free-flowering variety with rich red semi-double flowers.

Rosa Hugonis is distinct from the majority of roses,

THE WILD ROSES OF OTHER LANDS 145

for it is of strong growth and bears yellow flowers, two inches across, with the greatest freedom, during early May. A native of China, it was originally brought to notice about the end of last century, and is certainly one of the best of the species for garden planting. Mature bushes are five or six feet high.

Rosa lævigata, commonly called the "Cherokee Rose," is a native of China, but is naturalised in the southern United States. Of climbing habit, it forms long, slender branches, which are clothed with glossy, dark green leaves, and armed with stout spines. The solitary white flowers are three to four inches across, and very showy. It is, however, tender, and not suitable for general cultivation in the British Isles. A very pretty hybrid has been raised between this and *Rosa indica*; it is called "Anemone," and has pink flowers.

Rosa lutea.—Under the name of Austrian Brier this is frequently seen in gardens, and it is the choicest of the wild yellow roses. A native of the Orient, it forms a loose bush two to four feet high. The flowers are a very deep shade of yellow and about two inches across. Arising singly from short axillary growths, every branch at flowering time appears as a long, arching inflorescence. The variety *bicolor*, known also as the Austrian Copper Brier, is quite as beautiful. In this case the petals are rich bronze above and yellow below. Unfortunately, both are rather difficult to grow, and are only cultivated with great care in some gardens. They need practically no pruning. Rather heavy soil on a limestone or chalky foundation appears to be most con-

ducive to success. In some places *Rosa lutea* is known as the Yellow Eglantine.

Rosa macrophylla is a native of China and the Himalaya. As a mature bush, it is seen ten to twelve feet high and as far through. Spines are sparingly produced, and few are found on the flowering branches. The red flowers are about two inches across, and appear in large clusters about the points of short axillary branches. They are followed by long and rather narrow, scarlet fruits which make the plant very attractive in autumn.

Rosa microphylla.—This is a very distinct Chinese rose. It is of bushy habit and the branches are very stiff. Few spines are produced, but in some instances the stunted branches are almost spiny in character. The flowers are large, three inches across, white, deeply suffused with pink, and very fragrant. It is, however, the fruits that make the plant of special interest, for they are round and apple-shaped, an inch or more in diameter, greenish-yellow, very fragrant, and covered with stiff, fleshy spines. There is a variety *flore pleno*, with double flowers.

Rosa moschata, the Musk rose, belongs to the strong-growing, climbing group. Found from South Europe to India, it forms vigorous branches, armed with strong, hooked spines, and finds its way to the tops of good-sized bushes and trees. The large green leaves have a glaucous tint, particularly in one variety. The flowers are white with bunches of golden stamens, and they are produced in large clusters by axillary growths from the previous year's branches. It is seen at its best when

THE WILD ROSES OF OTHER LANDS 147

allowed to grow over a large evergreen, the flowers showing against the dark background. It is not suitable for the colder parts of the country. The variety *flore pleno* has double flowers. Forms with very glaucous leaves are inferior to the greener-leaved kinds.

Rosa Moyesii.—This is a strikingly beautiful new species from China. When mature it attains a height of ten or twelve feet, with a wide spread. Its chief beauty lies in its flowers, which are about two inches across and bright red or almost scarlet in colour, a shade hitherto unknown amongst wild roses.

Rosa multiflora.—In one or other of its many forms this is one of the most popular species. Of semi-climbing habit, it forms a bush ten or twelve feet high, and as far through, with its spiny branches much interlaced. The small, fragrant white flowers, are produced in large panicles during June. Crossed with various kinds of garden roses, it has been the chief factor in the raising of the many kinds of Multiflora or Polyantha roses, of which Crimson Rambler and Electra are examples. The type is a native of China and Japan, and has long been in cultivation.

Rosa noisettiana is the type of the various "Noisette" roses. It is a hybrid between *Rosa indica* and *Rosa moschata*, and combines the vigour of the latter with the delicacy of flower of the former. The double-white-flowered form is usually met with. The flowers are borne in large clusters towards the middle of summer.

Rosa pomifera, the apple rose, is a European species, somewhat resembling a dwarf form of the common Dog

rose in habit, but distinct by reason of its large red fruits, which are armed with stiff bristles.

Rosa rubrifolia is very conspicuous amongst other kinds by reason of its purplish foliage. For this reason alone it is used in gardens, especially in beds arranged for coloured foliage effect. It grows about eight feet high, and is a native of the mountains of Europe.

Rosa rugosa, the common Japanese rose, is one of the most widely grown species; not only is it used for planting in shrubberies and to form groups in conspicuous parts of the garden, but it is in request for wild garden and covert planting. Attaining a height of four or five feet, it may easily be kept to two and a half or three feet by a biennial pruning. The red flowers are four inches across, fragrant, and freely produced. Scarcely less beautiful are the scarlet apple-like fruits, which ripen in August and September. In some countries the pulp is used for jelly making. A white-flowered variety, *alba*, is also grown. Crossed with various kinds of garden roses, a race of very showy roses has been raised. All the varieties have fragrant flowers and are much hardier than most garden roses, for they thrive quite well where the Hybrid Teas fail.

Rosa sericea, an Indian and Chinese species, may be readily detected amongst other kinds by having four petals instead of five to each flower. The bush attains a height of eight feet and produces its cream-coloured flowers freely during April and May. A variety named *ptoracantha* was introduced from China a few years ago. It is remarkable by reason of the spines being very much

THE WILD ROSES OF OTHER LANDS 149

enlarged at the base and continuing along the branches almost in unbroken lines. Whilst young, they are of a bright red tint. As the best spines are found on the most vigorous shoots, it is necessary to provide rich soil to have the plant at its best. The orange coloured fruits are also ornamental.

Rosa setigera.—This is the Prairie rose of North America, and very lovely when seen at its best. It however, requires a very sunny position to ensure success. Of climbing habit, it forms long, slender branches, which take possession of bushes or other supports and form large, tangled masses. The delicate rose-coloured flowers appear in June.

Rosa Soulei is one of the strongest of the wild roses new to gardens. A native of China, it grows at least twelve feet high, and is conspicuous by reason of its intensely spiny branches, elegant glaucous leaves, and large clusters of creamy-white flowers which open during July and are succeeded by orange-coloured fruits.

Rosa virginiana, a native of the eastern United States, is often of rather dwarf habit, although sometimes attaining a height of four feet. Its leaves are very glossy, its flowers red, and its small, round fruits scarlet. There is a variety *alba*, with white flowers, and another, *flore pleno*, with double blossoms.

Rosa webbiana.—This is a native of the Himalaya, and distinct by reason of its intensely spiny branches and delicate glaucous leaves. The flowers are white, deeply tinged with pink, and are borne during June and July.

Rosa wichuriana, although only introduced from Japan about eighteen years ago, is now one of the most widely known species. Forming long, trailing branches, it does not rise many inches above the ground unless it can find some support over which to clamber. Its leaves are semi-evergreen, and its flowers, which appear in large clusters, are white and fragrant. Crossed with various garden roses, the many rambling *Wichuriana* kinds have been raised from it.

Rosa xanthina, a native of Persia, Afghanistan, etc., is rare in cultivation, but a showy and interesting plant on account of its yellow flowers. It grows four or five feet high and thrives best in a well-drained situation amongst rocks.

CHAPTER XXII

ROSE GROWING FOR EXHIBITION

To enable one to show six blooms of the standard required at the present day, it is necessary to grow some two hundred plants at least of recognised exhibition varieties. I would advise the would-be exhibitor first of all to join the National Rose Society and to attend several rose shows before making any attempt to exhibit. It is best to visit the show early in the morning before the judging is done, to watch the exhibitors at work and examine their boxes of blooms. Boxes must be of certain dimensions and the flowers need to be supported by wires. These are essential to enable one to display the blooms to the best advantage.

To make a beginning, secure a piece of land—a portion of a meadow, if possible. Have the ground well trenched and the turf buried, and plenty of good farmyard manure, basic slag, and crushed bones mixed in the lower spit of soil. This work is best done in September. In October the order for roses may be dispatched to the grower. Ask for plants on the seedling brier. Many growers advise the brier cutting as a stock, and certainly plants on this yield very fine flowers, but the suckers or wild growths from the roots are a great nuisance. The seedling brier is far preferable,

and roses budded on this flower better in the autumn than roses on the brier cutting. Half-standards should be grown of the Tea-scented roses and some of the Hybrid Teas. I prefer half-standards to full standards as being more readily protected, and shades to preserve the blossoms are more easily placed over them.

In planting out the roses place them in lines three feet apart. This enables one to cultivate the soil well, an important detail in rose growing for exhibition. Perhaps I need hardly say that the rose delights in a good clayey loam. If, however, his soil happens to be rather sandy, the reader would be well advised to grow chiefly the true Tea-scented roses, and where the soil is of a very poor description there is nothing for it but to import some good turfy loam.

Plant early—from mid-October to the end of November. Give the plants plenty of room, although the system of hard pruning enables the grower to plant more closely than if he were growing for garden decoration only. Let them be two feet apart in the rows, though the less vigorous varieties need be only eighteen inches apart.

A visitor to an exhibitor's garden in March would wonder where the roses were to come from, for he would scarcely be able to see the plants, so hard are they pruned. Most exhibitors cut out all old wood, and rely upon that of the previous year, cutting this down to two or three buds. Not more than two or three blooms from a plant should be expected, the object

ROSE GROWING FOR EXHIBITION 153

being to concentrate all the energies of the plant into these few flowers.

Superfluous shoots must be carefully thinned out in May, and a look out kept for grubs and green fly. For the former there is nothing better than hand-picking, and if the plants are really healthy there will not be much trouble from green fly. Mildew is apt to be very troublesome during certain seasons, and some varieties are especially liable to attack. It is a good plan to sprinkle the ground thickly early in the season, soon after pruning, with *green* sulphur. This acts very beneficially and will often prevent mildew appearing.

As the growths develop and flower buds are seen, disbudding must be attended to. The most promising bud is retained, and the others are removed, leaving only one bud upon each shoot. Disbudding needs to be done with discrimination, because some varieties produce the best blooms from the side buds and *not* from the central one. When growths spring from the axils of the leaves it is well to pinch them out, so as to concentrate all the energies of the shoot upon the one bud.

Feeding roses is very necessary. This is done during May and June by applying liquid manure once a week at first and later on twice a week. It is agreed by all that liquid manure made from cow manure and soot is an excellent stimulant, but its preparation is not pleasant, though rendered much less disagreeable by the use of Malden's Infuser, which is in the form of a bucket. Both bucket and lid are full of holes. The

manure is put in the Infuser, which is suspended in a cask of water, and in two days clear liquid is available that may be drawn off by a tap. When exhausted, the sediment can be emptied out to dry in the sun, when it may be used for potting purposes. The amateur who keeps a few fowls or pigeons will find that this infuser provides excellent liquid manure. Farmers having the use of sheep-droppings can grow roses second to none. If necessary to use artificial manures, such as Clay's Fertilizer, Ichthemic Guano, or Wakeley's Hop Manure, this infuser helps one to prepare an excellent liquid. The ground should be moist before manure is applied, and for this reason it is best given after rain, but if no rain comes then water the ground a day before with plain water.

To established roses natural liquid manure can scarcely be given too strong, but artificial manures must be used cautiously. When roses are planted in lines, liquid manure is best applied in drills drawn along each side within about five inches of the base of the plants. Night soil made into liquid form and poured in such drills is used by many of the large trade growers, and accounts for the huge blooms seen at the shows.

MAIDEN PLANTS.—When more experienced, the amateur should grow a few maiden roses each year. To obtain these, brier cuttings and seedling briars are planted out and such varieties as are best as maidens are budded upon them. When I say fully three-fourths of the blooms shown by trade growers are cut from maiden plants, the reader will appreciate the import-

ask
nat
di-
ay
eps
ro-
use
If
er-
re,
mid.
ed,
t if
with

can
ust
nes,
ach
nts.
uch
and

ma-
To
are
dens
rths
rom
ort-



A BOWL OF GARDEN ROSES



A BOX OF PRIZE ROSE BLOOMS

ROSE GROWING FOR EXHIBITION 155

ance of growing a few stocks annually for budding. The stocks are planted in spring in rows three feet apart, the plants being about ten inches apart in the rows. They need good cultivation; that is to say, the land must be deeply dug and manured, and hoeing carried out frequently. The stocks are budded early in August. Half-standard briars are planted in November, twelve inches apart, in rows three feet wide; budding is carried out in July.

When the blooms are ready for the show there are several points of importance to remember. I have seen the best blooms simply spoilt by careless manipulation. A day or so before the show day the blooms must be tied. This applies chiefly to the rather thin roses. Very double blooms, like Bessie Brown, may not need it until the day of the show. The bud, when almost fully grown, should be tied with a piece of double Berlin wool. It must not be knotted, but given just a double twist. The outer rows of petals are not tied, but merely the heart of the bloom; in some cases the tie must be loosened to allow the bloom to develop. Care should be taken not to tie when the blooms are damp. As a rule, a bloom must not be tied for more than three days.

Shades are very necessary to the exhibitor. These may be in the form of straw hats, umbrellas, and other devices, but the best are the cone shades made with wire and canvas and attached to a stake; they are sold by most horticultural sundriesmen. They may be adjusted to suit roses at varying heights. To preserve

very delicate Tea roses, tissue paper may be gummed to the edges of the shade; this gives protection from wind and excessive sunshine. Heavy blooms of such sorts as Maman Cochet should be supported by a small stick.

Exhibition boxes and Foster's tubes are necessary, together with some nice green moss from the woods. Care should be taken to have the box-lids made deep enough to accommodate the blooms when mounted in the tubes: the latter add considerably to their height. It is best to cut the blooms for the show early in the morning or after five o'clock in the evening. If they have to travel a long distance the blooms may be cut fully a day before, and placed in a cool shed or cellar, in deep jars of water. Make sure that the tubes are full of water after arrival at the show, and if possible keep the boxes out of the tents until close on judging time. Choose a shady spot where the flowers may be kept cool.

Always take plenty of spare blooms, tied, and placed in a spare box. A rough deal case of good depth, with the tubes secured in the base, answers well for this. For this purpose large tubes to hold several blooms are preferable. If a dozen blooms are placed in a large tube full of water, they keep better than if individually in a smaller tube.

PART III

Some Very Practical Matters

CHAPTER XXIII

ROSE GARDENS

HOWEVER big or however little a rose garden may be, it should at least be solely and only a garden of roses. Those who are still fond of a real old-fashioned border of flowers, in which all sorts of old world and chiefly fragrant blossoms commingle, may, even without fear of committing a gardening heresy, find room here and there among the herbaceous perennials—the Pæonies and Oriental Poppies, Larkspurs and Lilies, Bergamot and Sunflower—for little groups of hardy roses, especially those that bear sweet-scented flowers and are vigorous enough to take care of themselves. They will be appropriate to the scheme. But generally it offends against the canons of rose growing to plant the Queen among her subjects. A fiat has gone forth from the rose powers that be that the rose shall be grouped in a garden of roses; and, reader, if you would do the right thing, take heed and hereby be counselled. Moreover, since we give even the cabbage a patch and the potato a plot, each to itself, why not the rose, the Garden Queen? Even without reflection we shall be convinced that this

is the only loyal way of growing the royal flower. Further, we shall find that the rose garden lends itself to such infinite variety of design, to the exercise of so much skill, and the display of such artistic feeling that its conception and creation prove a fascinating task.

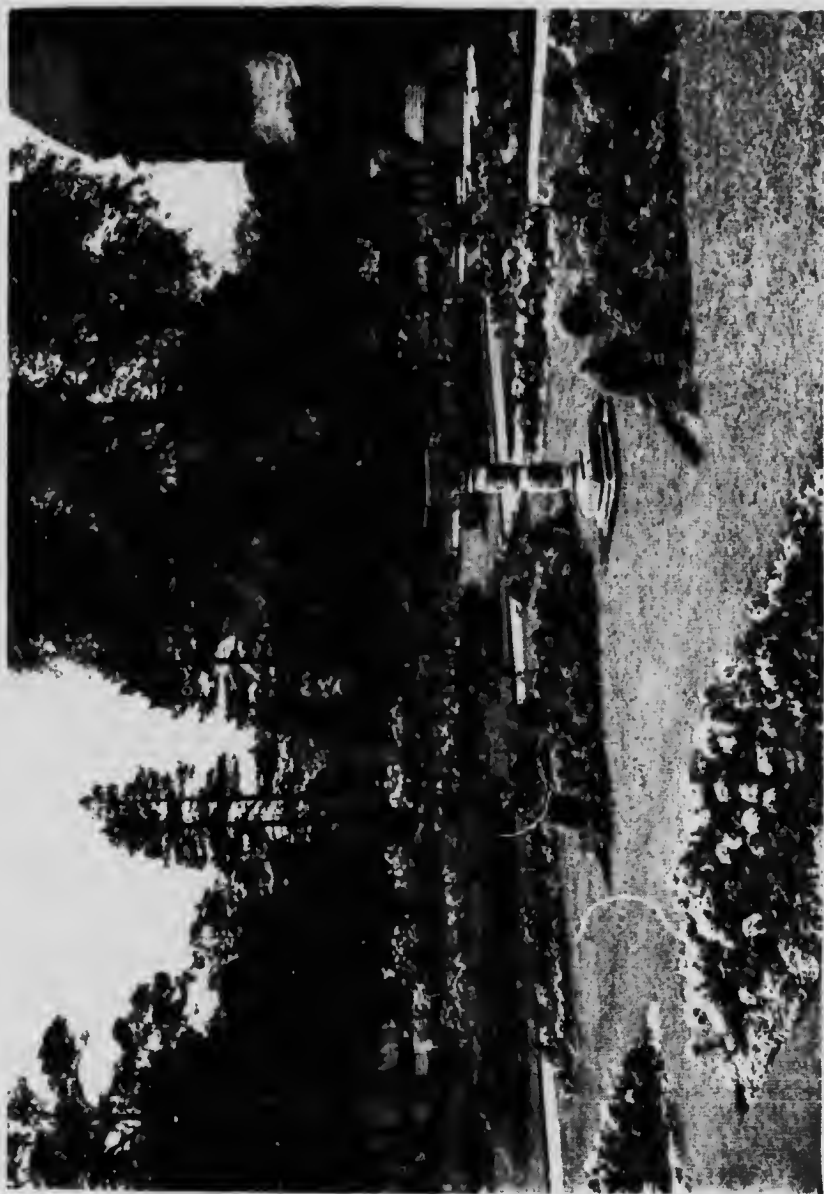
Providing that the design is simple—and is not simplicity the highest form of beauty?—the rest may be left very largely to the imagination and desires of the owner. There is only one other *chose nécessaire*: the choice of a sunny spot. A rose deprived of sunshine is like a wild bird caged, and will languish similarly. To plant roses in the shade is even a more dangerous experiment than to cage a wild bird, for whereas some birds can be inured to the life confined, very few roses can be acclimatised to the shade. Sunshine is the very life of the garden of roses. Without it all the best-laid schemes may, and probably will, come to nought.

To grow roses in the shade you have to pick and choose most carefully, and the glories of the rose world are not available. So choose above all things a spot that is sunny, even if it is not sheltered, though rather make choice of one that possesses both advantages. Then, with fair planting, cautious manuring and hard pruning, shall your garden blossom forth in due season, yielding up posy on posy, and still more posies.

In the matter of actual design there is scope for greater definiteness than for instance in the making of a rock garden. You cannot very well draw up a plan for this and advise the gardener to put one rock here and

ower.
itself
of so
that
k.
sim-
y be
the
the
ne is
To
ex-
ome
oses
very
est-
ght.
pick
rose
gs a
ugh
ring
a in
more

for
g of
for
and



THE ROSE GARDEN AND FLOWER BEDS AT THE MANOR HOUSE. WENDOVER

THE ROSE GARDEN AND FLOWER BEDS AT THE MANOR HOUSE. WENDOVER



A GARDEN OF ROSES

ROSE GARDENS

159

another there, and others on top of those. You can merely tell him what to avoid, and let him work out his own salvation. Now, luckily, one can give working designs for the rose gardener, since the formal rose garden has the great advantage over the rock garden, that it is made on the flat. They may, like all plans that are drawn for general guidance, be copied either wholly or in part, as seems best to suit the circumstances.

The rose garden, like all other auxiliary gardens, while so placed as to form part of the general scheme of arrangement, should be a little pleasance to itself, and though readily accessible from the house, is preferably so situated that its presence is not revealed until the visitor has reached it. Let the fragrant petals proclaim its whereabouts, luring the visitor with dreams of rose beauty before he is permitted a view of the roses themselves; and disappointment shall not lie in waiting if the reader plans without haste, plants without delay, and prunes without feeling. Privacy is most charmingly assured by the sunk rose garden. Alas! that most of us have to make our rose gardens on the flat. There is no greater joy in gardening than in laying out a garden on undulating ground. In the first place, it is so much simpler; so little ingenuity is needed; so many points suggest themselves that in dealing with flat ground are achieved only slowly and after much thought.

How easy it is to cloak the sunk rose garden from view. A few shrubs and scattered trees, a walk that winds about them, an arbour here, a group of rose pillars

or some bold hardy flower there, and the thing is done. But with a garden on the flat one needs to go more laboriously to work. The garden must be hedged round with Yew or Holly, if time (when one is young) or money (when one's ship has come home) is of no account, for little Yews and Hollies grow slowly and take years to fulfil their purpose ; while bigger ones cost—oh ! so much more than they seem worth ! One may take comfort in the fact that the enclosed hedge fulfils a twofold purpose : it hides the garden from the general view and shelters the roses from the wind, and, as cleanliness comes next in virtue to godliness, so in rose morals sunshine alone takes precedence of shelter.

The garden of roses should not stand out like a square on a draught-board, which it might easily do. Imagine it to be beyond the lawn that comes close to the house. It were easy to restrain the walk, that seems eager to unveil the roses' charm, by throwing up a mound and crowning this with flowering shrubs, with quick-growing *Spiræa* or Mock Orange, or with statelier evergreen *Rhododendron*. And when the wayfarer, following the winding walk, has passed the flowery mound, why should he not find a winding pergola, close-twined from top to base with fragrant flower and lusty foliage ? Then, lost in wonder at the delights on either hand, and entirely unsuspecting of its real object, he would find, on emerging from the covered way, the garden of roses spread before him in full and exquisite beauty. In some such way, by the subtle use of flowers that enchant the visitor as he passes on, would I lead him, already charmed with what

s done.
o more
round
money
nt, for
ears to
o much
omfort
wofold
ew and
nliness
morals

square
magine
house.
ger to
d and
rowing
ergreen
ng the
should
top to
n, lost
ntirely
erging
before
ay, by
as he
a what



THE ROSE CORNER IN A GARDEN IN THE SUBURBS



WHITE PINKS AMONG THE ROSES

he has seen, and bring him without hint as to when his journey should be finished, to the wondrous goal. There is no delight equal to that given by the unexpected. If the hedge of Yew and Holly is out of the question, one may, if there is plenty of room, plant Penzance Briers for sweetness and early blossom, or Japanese Briers for boldness and again bright fruits. And are there not the thornless rose, Zéphirine Drouhin, and the vigorous Hybrid Teas, many of which, if pegged down, form a suitable hedge, and others which are referred to in the chapter devoted to Rose Hedges?

Within the charmed ground there is illimitable scope, according to its extent, for everyone's aspirations, and in the plans which are given further on an attempt has been made to indicate some of the lines on which rose gardens may be founded. It is the greatest mistake to have beds of grotesque and fanciful design. They destroy the sense of charm and peace that should and does pervade every good garden of roses, for the reason that they tend to distract attention from the flowers themselves. Simple beds of circular, square, oblong, or other rectangular design are best suited to the roses. They waste no ground, their upkeep demands the minimum of labour, and the roses are given every opportunity of displaying themselves to full advantage. The spaces between the rose beds should be of grass, and the paths either of grass or paved. Paths paved with brick or stone look especially charming, and I think are even more appropriate than grass. They have a material advantage because they afford a dry footing

at all times of the year, and an æsthetic value in that they lend an old-world atmosphere, and emphasise the old-world character that is one of the most precious attributes of a garden.

Paved paths are rather costly to put down (the average cost is about one shilling per square yard), but once well set they last for a lifetime, and the passage of time serves only to enhance their charm. Moss grows in the crevices, and here and there one may sow or set little tufted plants, such as the fragrant Thyme and Mint, Violet Cress, miniature Bellflowers, and others, and they add immeasurably to the delight of the garden of roses.

When the design is circular or rectangular the central point should be emphasised in some way; the most delightful plan is to crown it with a sundial or old well-head or open arbour encircling a little pond. Failing all these, a weeping standard on a six or seven-foot stem or a group of pillar roses may be used. Some such pronounced centre seems to be essential; one must not forget that the small garden of formal outline demands formal treatment within its boundaries. It is unwise to crowd the rose beds; grass paths as broad as the available space allows, never less than three feet wide, add greatly to the charm of the roses. If wider, so much the better, since watering, wheeling, etc., are then facilitated.

Big beds are better than little ones. The latter have a tendency to destroy the balance and to lessen the dignity of the garden; and, naturally, they add greatly to the labour of keeping the grass neat and trim, for it is

the care of the edges and not of the lawn itself that occupies so much time and occasions so much labour.

The formation of rather small beds enables one to fill each with a distinct variety, and this is preferable to grouping roses of mixed colours. If long borders surround the garden the roses look extremely well if arranged in groups of three or five.

In planting a rose garden it is wise to engage the services of one who has a wide knowledge of the different varieties to advise as to their correct grouping. It would never do, for instance, to plant low-growing roses at the back of a border and vigorous sorts in front; yet this too often happens where the planter is ignorant of the habit of growth of the roses chosen. Some are of low and spreading growth, others are erect and so on: great differences exist, and an ill-considered arrangement is not at all attractive.

Pillar roses and weeping standards are very useful for destroying the monotony of level that is rather painful in the average rose garden. At the junction of walks and in the corners they are appropriately placed; they should not be dotted about indiscriminately on the grass between the beds of dwarf roses. When space is not restricted they may be grouped in half-dozens with excellent effect. The placing of pergola, arbour, and arches needs consideration; they have the power very largely to add to or detract from the charm of the garden. It has been pointed out on many occasions that the pergola is a covered way, and should therefore be so placed as to fulfil an object. i.e. it should lead somewhere. Now,

a pergola that merely runs across the rose garden, and is faced by a hedge at either end, has no mission in life. It stands self-condemned as a failure. When the roses fill part of a comparatively small garden I think the pergola should be so placed as to lead to the roses, and not form part of the rose garden. As already explained, it can be made then to serve the purpose of hiding the rose garden from the general view. Arches may span the walks at suitable points; they are most effective when arranged where the paths meet, and may there be so enlarged as to give welcome shade and provide a place for a garden seat beneath. To place a series of arches at intervals over a rather narrow path has an irritating effect, and often spoils the view across the garden, whereas, if grouped appropriately at certain points, the result is much more pleasing.

CHAPTER XXIV

SITUATION, SOIL AND PLANTING

To import new soil into a garden is a big and costly undertaking, and I should be slow to advise this. It is well known, I think, that the late Mr. Alfred Tate, when forming his lovely rose garden at Downside, Leatherhead, which is one of the finest in the land, imported some hundreds of tons of loam to take the place of the chalk removed, but such an ideal method is too impracticable to be recommended generally. Some enthusiastic amateurs will spend ten or twenty pounds a year on new soil alone to enable them to win an important prize at a rose show, but such are undoubtedly in the minority.

In a book written as a guide for the amateur one may be allowed to describe ideal soils and situations, with the object of helping readers to approximate as closely to such ideals as circumstances will allow.

An ideal situation is one (*a*) well sheltered from strong gales, but not over shadowed by large trees or hedges; (*b*) in a district fairly immune from severe frosts. High ground that is well sheltered from wind would suit perfectly; land near the sea has generally the advantage of escaping frost. An instance of the success attending rose growing near the sea is provided

by the Rose Garden at Chalkwell Park, Westcliff-on-Sea, which is maintained by the Corporation of Southend. There is to be found a choice collection of roses in the rudest of health. Unfortunately the soil in gardens near the sea is often chalky, and, therefore, not so suitable for rose growing.

If I were searching for a good rose soil, I should choose one in which elm trees flourished, and where the blackberries grew luxuriantly. Walls add greatly to the charm of a rose garden, though they are expensive to build. Those of about eight feet in height are especially suitable. On those facing south and west one may plant the choicest Tea roses, not necessarily the climbing varieties, but those ordinarily of dwarf growth in the open garden, for in such an ideal position they will quickly reach the top of the wall.

Walls of even four feet in height are of much value, as affording protection from keen winds, and are to be preferred to hedges of evergreens, which rob the soil of much of its value. But a small walled-in garden is not recommended. Roses delight in fresh air and sunshine. Most nurserymen grow their best roses in the open fields.

SOIL.—The best soil for roses is a rich, rather heavy loam. Soil that will grow good wheat or hay will grow good roses also. A couple of cartloads of top soil taken from a building plot would go a long way towards making an ideal rose bed, or it could be blended with the staple soil that already exists in the average garden.

Good drainage is very essential on heavy land.



RÔSE MADAME LÉON PAIN (Hybrid Tea)





SITUATION, SOIL AND PLANTING 167

Readers whose soil is stiff and clayey should obtain some burnt clay and mix this well with the lower soil when trenching is carried out. Failing burnt clay, ashes would do, the object being to keep the clay from setting into solid rock-like lumps. It is a simple matter to burn clay. The best time is May or June, when the soil is fairly dry. Start a good fire with faggots or hedge-trimmings and dry garden rubbish. When a fair heap of hot ashes is obtained, apply more faggots, and cover them with a layer of clay, sprinkling some coal dust among the latter. Three holes should be left open at different parts of the heap so that the fire may burn brightly. As the clay becomes burnt through, apply more wood, clay, and coal dust, and so on, until a big heap is burnt. I am sure that rose growers are not yet fully alive to the value of burnt earth as a means of lightening heavy soils. I have seen some wonderful results from its use. Readers whose gardens are clayey should always have a supply of fine soil to apply around the roots when planting the roses.

An ideal rose-bed could be made by excavating three feet deep and refilling with the top spit from a meadow, taking care to place the grass turves in the bottom, and incorporating basic slag, burnt earth, and manure in the lower two feet.

A gravel soil is far from being a good medium for rose growing, but it is better than a sandy soil, as there is usually some good soil among the gravel. If the gravel goes down deep, this should be removed and top soil from another part of the garden brought to replace it.

It is waste of money to plant roses in a gravelly soil, unless one is prepared to go to a little expense to provide them with better soil underneath. It is lamentable to think how many roses have been sacrificed because of a hard subsoil that has never been broken up by spade or fork. Ground for roses ought to be dug at least two feet deep, and if the subsoil is very gravelly this should be replaced by the best soil available.

Tea roses do remarkably well in a gravelly soil, if plenty of manure is placed in the lower spit to provide nourishment for the roses and to keep the soil moist. A deep, gravelly soil is advantageous in that one may water the roses very freely in summer with liquid manure.

Chalk is excellent to mix with ordinary soil, but it makes a poor medium itself for rose growing. Where it abounds, chalk should be dug out and replaced with turfy loam.

A sandy soil is the worst of all for roses, yet it may be so enriched with manure as to be rendered fit for their cultivation. All light, porous soils should be mulched from May onwards. Spent hops make an excellent soil covering, and if applied two or three inches thick, and the rose beds saturated with liquid manure once a week in summer, fine roses may be grown. A "mulch" is simply a soil covering to prevent the rapid evaporation of moisture. Dry soil or dust makes an excellent mulch. If, after watering, one could cover one's rose beds with an inch or two of dry soil, the moisture would not only be preserved for a longer period, but the ground would be prevented from cracking.

SITUATION, SOIL AND PLANTING 169

The soil in many suburban gardens consists of a thin dark mixture that is obviously very poor stuff, and in which it seems hopeless to attempt roses; yet often beneath the surface there is a stratum of good soil. When this is the case, there should be no difficulty in burying the upper and replacing with the lower soil. If to this are added a few barrowloads of chopped turf, farmyard or Wakeley's Hop Manure, carefully selected varieties of roses will thrive very well. Even within sound of Bow Bells good roses are grown.

PLANTING.—I am not prepared, as some writers are, to advise that each root be carefully and systematically arranged at planting time. That is, no doubt, a counsel of perfection, but it is impracticable; moreover, it is not necessary to be so pedantically correct. But it is important to have the soil in a friable, workable state, so that it may be placed closely among the roots. If the ground is wet, some dry soil should be used for placing directly on the roots, so that it can be readily worked among them. When the roses arrive, one is naturally anxious to plant them, and this may be done in any except frosty weather, if a few bushels of loamy soil have been kept dry for the occasion. A compost of equal parts sifted loam, leafmould, old manure, and burnt garden refuse would be an ideal compost to give the roses a good start. If the roots are covered with such a soil mixture as this, the plants will soon become established. The ground having been prepared by deep digging and enriched with manure buried about eighteen inches below the surface, some small sticks should be placed

to indicate where the roses are to be planted. The distance apart should be from eighteen inches to two feet for bush or dwarf roses, and from two and a half to three feet for standards. All long roots should be cut back so that they are not more than twelve inches long and bruised ends cut off. If for any reason the roses cannot be planted at once, they should be put in a shallow trench, covered with soil, and made firm. If the plants are laid in with care each one may be taken out without disturbing the other. At planting time, take out a few plants, dip the roots in water, and cover with a sack, then proceed to dig a hole about fifteen inches square. The work of planting is most conveniently carried out by two persons, one holding the rose in the centre of the hole, while the other covers the roots with soil. The plant should be at such a depth that the junction of stock and scion, the point at which the rose was budded (in the case of bush and climbing roses) is about an inch below the surface. If the roots are bunched together, they should be disentangled and spread out, but, as already mentioned, there is no need to arrange every root. The soil having been worked among the roots well, and made firm with the foot, a handful of bone-meal may be given to each plant; it should be scattered on the soil before the final covering is put on. One should aim at having the soil quite firm about the roots and loose on the surface. Standards are planted at such a depth that the uppermost roots are three or four inches beneath the surface.

All long shoots on bush roses may be shortened to two

SITUATION, SOIL AND PLANTING 171

feet, and each standard should have a stake to support it, this being put in before the roots are covered. When the whole bed is planted, lightly fork up the surface, but do not cover it with manure. A week or so after planting it is a good plan to press the heel against each plant to ensure its being quite firm in the soil; nothing is more detrimental than loose planting. No watering is needed in autumn, but after spring planting it is well to give water occasionally. It is a mistake to plant in frosty weather. The plants should be kept in a trench while the frost lasts. If they arrive while the ground is frozen, keep the package in a frost-proof cellar until mild weather, then unpack the roses, and bury them in soil for a day or two.

After planting in late spring all shoots should be cut back to within two or three inches of the base. Be careful to label all roses, or a detailed plan may be kept of each bed. Much of the pleasure of a rose garden is lost if the names of the varieties are not known.

Replanting old rose trees and bushes may be done with safety if undertaken in October or early November. They will derive much benefit from a good supply of the compost previously mentioned, and the shoots should be considerably shortened and any very soft growths cut out. Often old and unhealthy plants will take on a fresh lease of life if transplanted to a better position, and given fresh soil about their roots. In planting roses in town gardens, as, indeed, in all gardens, be sure the subsoil has been well broken up to a depth of at least two feet.

CHAPTER XXV

PRUNING

A PROPER comprehension of the principles that underlie the pruning of roses is essential before the practice can be successfully accomplished, but once this is obtained, the difficulties that at first seemed insuperable vanish like mists in the morning sunshine. The two chief objects of pruning may be said to be the removal of superfluous and useless growths, and the proper treatment and regulation of those that are essential to the production of flowers. If a rose bush were left unpruned for a number of years, most of the fresh shoots would develop towards the top of the plant, with the result that the rose would grow taller and become weaker each season. Moreover, the bush would be full of small, weakly, flowerless growths, which, while useless in themselves, hinder the progress and lessen the value of those that are worthy. A principle the beginner has to learn early is that the result of cutting back a shoot is the development of other and stronger growths: thus, in order to make a weakly plant strong, the shoots are cut hard back; conversely, a rose that has vigorous stems needs less severe pruning. Instructions on pruning roses can only be general, since the amount of cutting back that is necessary depends upon the condition of the individual

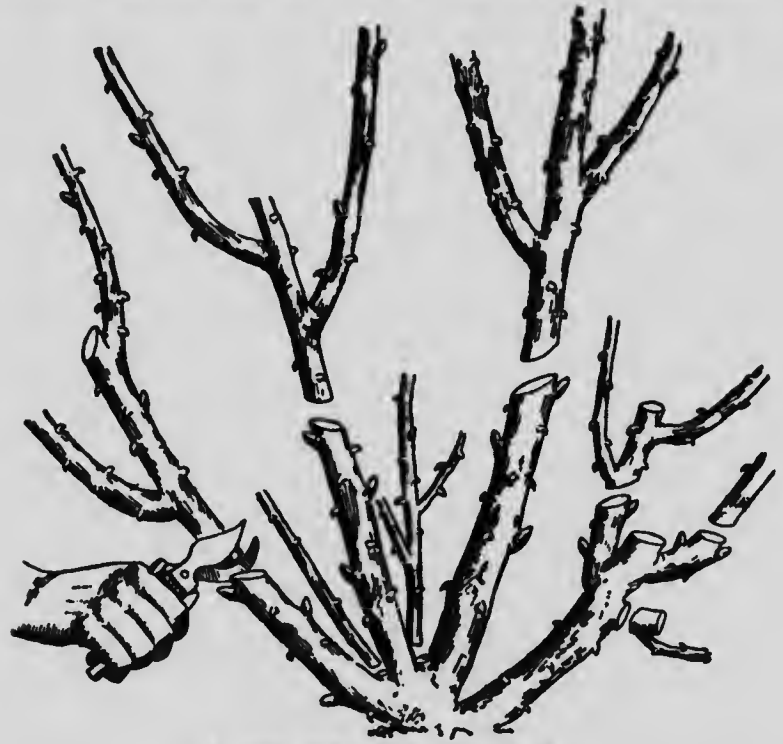
plant. The first thing to do is to remove all the small, weakly growths that obviously will never bear a bloom ; they prevent the free access of air and sunshine that is so beneficial to all parts of the stems, and absorb some of the plant's energy that would be so much better directed to perfecting the stems that are capable of blooming.

The preservation of an " open centre " is a strong article of faith of the expert grower, and this is ensured



A typical bush or dwarf rose tree pruned rather severely.

by cutting out those shoots that, instead of growing towards the outside of the bush, develop across other shoots and towards the centre, thus blocking up the middle of the bush. Having carried out these preliminary skirmishes, as it were, the beginner may apply



A bush rose pruned more lightly.

himself to the second part of the pruning, which is concerned with cutting back the growths that remain after all useless ones have been removed.

Those who grow roses for exhibition are obliged to prune every shoot hard—to within one or two buds of the base—so that the growths that develop will be

vigorous, and bear the finest possible blooms. The number of flowers obtained is not a question to be considered; in fact, the grower for exhibition is often satisfied with one or two prize blooms from each plant.

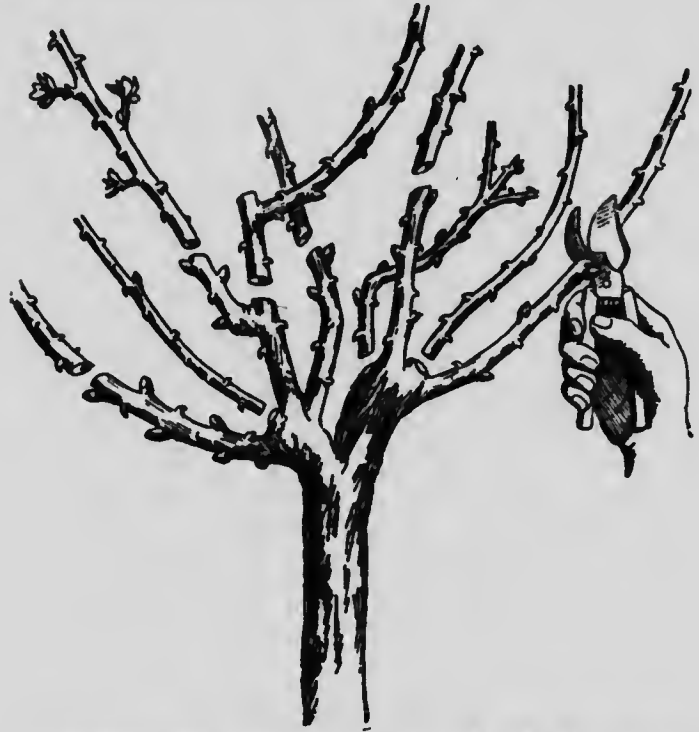


Some roses form a pronounced stem as illustrated. The proper pruning is shown.

But we, who grow for garden display, are not so easily contented; we need all the roses our bushes can be induced to yield, though, if we are wise, we shall endeavour to get them of some quality as well. The quality of the blooms is very largely governed by the method

of pruning adopted. The harder the pruning the finer and, usually, the fewer will be the blooms, and vice versa.

But there is, I think, little satisfaction in having a garden full of roses if all the blooms are poor, and devoid of that exquisite grace of form that is one of the



A standard rose after pruning, showing weak growths cut out and others shortened to varying lengths.

chief charms of the queen of flowers. For this reason it is desirable always to prune rather severely; not only does this enable one to obtain finer blooms, but it forces the plants to make vigorous growth, thus keeping them youthful and healthy. A growth is cut back at a point

immediately above a bud—preferably one that points away from the centre of the plant. The slanting cut ought to begin about on a level with the bud, but on the opposite side of the stem; the knife will then be brought out just above the bud itself. It is an extremely bad practice to cut the stem at any point regardless of



Several Hybrid Tea roses produce one vigorous shoot which develops at the expense of the other growths. It must be hard pruned as shown.

the position of the buds, for the piece of bare stem above the uppermost bud looks untidy, indicates slovenly gardening, and will, moreover, die back to the bud.

The question of how much of each stem to cut away is one that has to be decided very largely by the pruner, but one might give general directions, as follows: Shoots that are not so thick as an ordinary lead pencil ought to

be cut back to within two buds of the base; on those as thick as a lead pencil, four buds may be left; and on those of the average thickness of one's little finger, five or six. Stems that are still more vigorous may be "pegged down" if an abundance of bloom is desired, or they may be shortened to within eight or ten inches



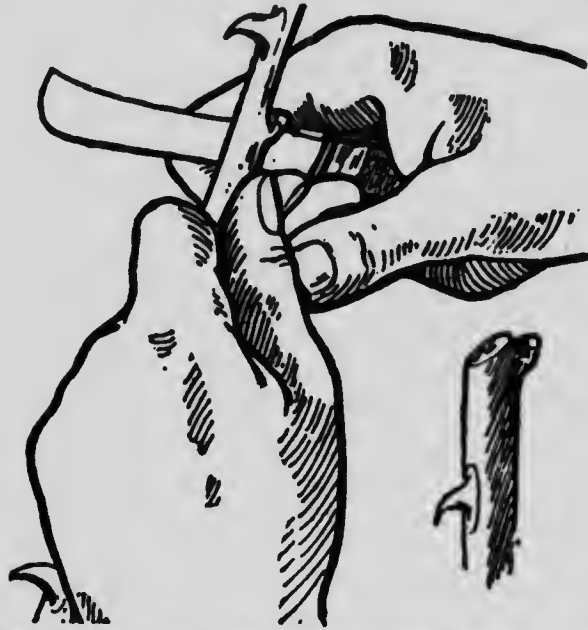
Wrong ways of making cuts in pruning roses.

of the base. It is far better to prune too severely than too lightly; one of the objects of pruning is to force dormant buds into growth. So many amateurs seem afraid to cut below the green growths that develop early on the upper parts of the stems, whereas one of the objects of pruning is to do so. The buds at the base of the stems are so much more valuable,

and cutting down the latter forces them to grow. The difficulty of giving precise directions is increased by the fact that in some varieties the buds are twice as far apart on the stems as in others; thus the lead pencil test applied to two roses, one having buds close together, the other wide apart, would give stems of varying height, even though the number of buds on each was similar. If, how-

ever, the beginner prunes hard whenever he is in doubt, he will probably have little cause for complaint.

That the initial pruning of roses should be severe is conceded by everyone who grows them. Roses planted in November, or during the winter and spring, whether climbing or bush, need to be cut hard back in the follow-



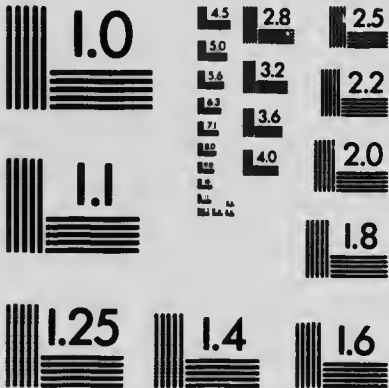
The proper way to cut a shoot when rose pruning.

ing March; each shoot of the bush roses ought to be cut to within two or three buds of the base, and the stems of the climbing roses to within five or six inches of the ground. It is true that if climbing roses are planted in late October or early November, they may start into vigorous growth without such hard pruning, but they may not, and it is far safer to cut them back. Spring-



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 288 - 5989 - Fax

planted roses especially need severe pruning, and if they are not put in until March, the stems may be cut back at planting time.

“Pegging down” is the term applied to the practice of tying down unusually vigorous growths of bush or dwarf roses, instead of cutting them back in the orthodox way, but it should not be attempted with stems that are less than half an inch or so in diameter. The end of the stem is attached, by a piece of string, to a peg or hook in the ground, thus forming, when pegged down, a miniature arch. The effect of bending the shoot down is to force all the buds into growth, and generally every one of them will bear a blossom or a bunch of blossoms. The only disadvantage of this method is that the flowers are likely to be on short stems, but this is compensated for by the lavish display. As only bush roses that are of exceptionally vigorous growth are suited to pegging down, the stems that have flowered may be cut out as soon as the blooms are over, their place being taken by fresh ones to provide the flower display of the following year. It happens sometimes that a strong shoot will develop on the lower part or even near the centre of the pegged-down stem; in such a case the latter must be cut back only as far as the new growth, for the latter, in its turn, will be pegged down. The work of pegging or tying down is done at pruning time in March.

Most bush roses, the Hybrid Perpetuals, Hybrid Teas, and Chinas, are pruned the third week in March, the Teas the first or second week in April in southern gardens. In northern gardens, pruning should be carried

out about ten days later. Climbing roses on walls start into growth early, and any necessary pruning should be done about the third week in February; if the work is left until later there is every likelihood of the new growths being damaged and broken off.

Climbing roses should receive their chief pruning in late July or August, as soon as the blossoms have faded. Such old stems as can be dispensed with are then cut out, the fresh growths being tied in to take their places. The only pruning given to climbing roses in March is directed towards shortening, to within two or three buds of their base, the side growths on stems of more than one year old. The stems that grew during the previous summer, of course, possess no side shoots, and they are pruned only to the extent of cutting off the extreme ends, if these are very thin or soft. Late in the season strong growths sometimes make their appearance at the base of rambler roses, and to less degree on bush roses also. Amateurs are often puzzled as to how to deal with them. But there need be no difficulty, for, owing to the late start they do not become "ripened," that is to say, firm; they are, therefore, useless, and should be cut off.

The two chief instruments for pruning are the knife and sécateurs. The former, if really sharp, makes a cleaner cut than the latter, but if one has a moderately large collection of roses the use of a knife renders the work of pruning a very lengthy one. Very few rosarians, I imagine, now make chief use of the knife; the sécateurs have taken their place. Blunt or ill-made sécateurs bruise instead of cutting the shoots, but providing a

good instrument is obtained, and the blades are kept sharp, there is nothing to be urged against their use, and much to be said in their favour. They are convenient to handle, and enable one to prune many roses in a short time. A small saw is sometimes necessary, as, for instance, in removing old branches from vigorous plants of rugosa, or rambling roses, but the ease with which good sécateurs will cut through a thick stem is surprising.

Further instructions on pruning are given, when necessary, in the chapters dealing with the various classes of roses.

CHAPTER XXVI

HOW ROSES ARE INCREASED

BUDDING

BUDDING is the process by which a bud, or "eye," is taken from a shoot of a cultivated rose and inserted beneath the bark of a wild Brier or other "stock." The "eye," or bud, is seen as a speck situated between the base of each leaf stalk and the stem. If not disturbed, the eye or bud would, in the ordinary course of events, grow and bloom. It really contains a plant in embryo, for by inserting the bud beneath the bark of a Brier shoot the two unite, and in course of time the "eye," or bud, of the rose will start into growth.

Why do we "bud" roses instead of rooting them from cuttings? For the reason that it is more expeditious, and a more successful means of raising up a stock. Cuttings form an admirable means of increasing many varieties, but the choicer roses are not readily rooted from cuttings unless one has a greenhouse, and even then there are many failures. Millions of roses are budded annually, and for the amateur who wishes to exhibit roses it is essential that he should bud a few stocks each year, that he may be able to exhibit those roses that are only seen at their very best on the yearling or maiden plant.

Budding is best done in late June and early July for standard Briars, and August for the dwarf stocks. The art is soon acquired, and although we shall try to explain it here, the reader would be well advised to have a lesson or two from an experienced worker. The "eyes," or buds, are taken, as far as possible, from a shoot that has just flowered. Such a shoot is said to be "ripe." The eyes must be dormant, but plump. The shoots containing them are cut off the plant, and all foliage is removed. Part of each leaf-stalk is left so that the buds may be handled easily. If the ends of the stems containing the buds are put into a jar of water they will take no harm for an hour or two. Pieces of raffia, about twelve inches long, with which to tie the buds, should be prepared, and a sharp budding knife should also be in readiness. A cut about one inch in length is made on the bark of the Briar shoot in the form of the letter T, and only just deep enough to pierce the bark.

Two cuts are necessary, one longitudinal and the other horizontal. The latter is merely to facilitate the insertion of the bud. Now take one of the pieces of stem containing the buds in the left hand and commence to cut it about an inch above the eye. The blade is pushed gently down behind the eye and brought out again about a quarter of an inch below it. Now comes the most difficult part of the work, the removal of that portion of the stem behind the eye without damaging the base of the latter. If this is lost then the bud will not grow; there should be no hole beneath the eye. The way to carry out this delicate operation with suc-

cess is as follows: The bud is held between the left thumb and finger with the eye pointing downwards. The thumb-nail of the same hand is pressed over the eye, and with the right thumb and finger the piece of stem is jerked out. The lower end of the bud is then pushed gently beneath the bark at the upper end of the T cut, the horizontal cut enabling this to be done without difficulty. The thin end of the bone handle of a budding knife is used for the purpose of raising the edges of the bark of the T cut. Finally the bud is pushed beneath the edges of the bark until the end of the T cut is reached.

If a piece of bark is left protruding, this must be cut off near the cross-cut. It will readily be seen that a very light touch is needed throughout the whole operation. When the bud is in its place it is bound up with raffia. After a month the latter may be removed and retied rather less tightly. If the bud has "taken" it will look red and plump; if it has failed, another bud may be inserted in another shoot or, in the case of dwarf stocks, on the opposite side of the root stock.

On standard stocks three or four shoots are retained; two are budded, then if one fails another is budded. If two buds "take" on each standard they are sufficient, although three, or even four, may be inserted, each of a different variety if desired. However, this method is not usually very satisfactory.

Dwarf stocks are budded as close to the root as possible. Nothing is done to them until February of the next year, when the tops are cut off quite close to

the inserted buds. In the case of standards the "shoots are shortened back, also in February, to within six inches of the inserted buds. So much of the Brier shoot is left that when it sprouts in April it will help to draw up the sap to the bud, and when the latter starts into growth the Brier may be cut back close to the bud. An expert budder easily buds sixty dwarf stocks in an hour.

Briers potted up in winter may be budded in July if placed in a warm greenhouse in December, the top then being cut back to the inserted buds, they will make nice little plants by midsummer. This is a cheap and simple way of obtaining pot rose plants for forcing.

One named rose may be budded on another named rose. If, for example, one possesses an old rose bush that is of no value, several buds of a good variety may be inserted. The condemned rose should be cut down almost to the ground in winter. New growths will start from the base, and upon these, at their base, the buds are inserted and afterwards treated as advised for dwarf stocks.

ROSES FROM CUTTINGS

If it were only for the fascination that centres in home-grown plants, it would be well worth while to raise roses from cuttings; but when it is known that some roses thrive better on their own roots than when budded or grafted on a stock, roses from cuttings possess a double value. Considering how very easy it is to induce the cuttings to form roots, and how quickly they develop into good plants, it is really surprising that more amateurs do not practise this method of propagation.

“shoots”
six inches
shoot is
to draw
starts into
bud. An
an hour.
in July ;
the tops
will make
heap and
forcing.
er named
rose bush
riety may
cut down
will start
the buds
for dwarf

centres in
while to
own that
man when
gs possess
it is to
ckly they
sing that
propaga-

ROSE GENERAL McARTHUR (Hybrid Tea)





tion. There are several ways of inducing the cuttings to form roots, and they vary according to the season at which they are inserted. The greatest success I have ever had from home-grown roses resulted from my treatment of various cuttings given to me in Christmas week. Now, by all the canons of rose growing, as laid down times without number, Christmas week is two or three months too late to think of putting in rose cuttings. But the little slips I received were of new varieties, far too precious to be wasted, so I had perforce to adopt unorthodox methods. The success achieved was abundantly testified to, some eighteen months later, by splendid plants, brilliant with blossom. It was, of course, too risky to insert them in soil out of doors, and the shelter of an unheated greenhouse was available.

I obtained a large flower-pot or small tub, and filled this to within a few inches of the rim with ordinary soil, free from slugs and other ground pests. This was placed on the floor of the greenhouse, though not shaded by the staging. The cuttings, which were from six to eight inches long, were cut across just beneath a joint or dormant bud, to form the base. All leaves were cut off except the two uppermost ones, and these were shortened by half. The cuttings were then inserted singly in small pots, filled with sandy soil and made firm, only one-third of the cutting being above the soil. The small pots were plunged in the soil of the larger pot, and a bell-glass placed over the lot. This was pressed into the soil so that the cuttings were perfectly air-tight. Before the bell-glass was put on the cuttings were watered.

No further attention was given them for two months, except that as the few leaves decayed they were picked off and the interior of the bell-glass was wiped dry every day or so. At the end of February they were nicely rooted. Air was admitted gradually, and in a week or two the bell-glass was removed altogether. In April the little plants (they were all climbing roses) were put out at the foot of six-foot-high poles. By September some had reached the top—all were well on the way. The following summer—some eighteen months from the receipt of the cuttings—there was quite a fair show of bloom. Each succeeding year, as June has come round, they have been wholly delightful. The varieties were Tausendschön, Trier, René André, Rubin, and Paradise.

Another simple method is to insert the cuttings in a border out of doors in September. The cuttings should be chosen from shoots that have borne flowers. It is better to have them nine inches long when possible, though six inches is not too short. Cut across immediately beneath a joint to form the base, and remove all leaves except one or two at the top, and cut these in half. The soil is prepared by digging and treading firmly. A trench, having a flat, perpendicular back, is then made with a spade and a good sprinkling of silver sand is put in at the base. The cuttings are inserted, well pressed against the back of the trench, their bases resting on the sand.

Two-thirds of the cutting should be below the ground surface, one third above. The trench is half filled with

soil, the cuttings are trodden in firmly, and the trench is finally filled in. It is most necessary that the cuttings should be made firm at the base. A border at the foot of a wall facing north or east is an excellent position for rose cuttings, or they may be in the open garden. They should be placed six or eight inches apart and preferably left undisturbed until October of the next year. If then transplanted to permanent positions they will form excellent plants the following summer. This is undoubtedly the method to adopt to ensure a high percentage of successes, and therefore to be commended.

An unorthodox and, I am afraid, rather a slipshod way (though nevertheless somewhat surprisingly successful at times) is, whenever and wherever you cut a shoot off a rose tree, to "stick" it in the ground. A friend of mine who has a garden full of roses vows that he has raised scores of them in this way; and roses (some roses, that is) are so accommodating, and gardening generally is so full of delightful surprises, that every shoot you thus "stick in," may take root and flourish in spite of you. On the other hand, all may take offence and, paying you back in your own coin, shrivel and die. So, according to whether you incline to the orthodox or the heterodox, choose and take the consequences.

Another simple way to grow your own roses—the very simplest, in fact, in so far as it demands the minimum of care and labour—is to prepare the cuttings as already advised, and merely place them in a wide-mouthed bottle of water, placed on a sunny shelf in the greenhouse. This method is only to be recommended for

carrying out in the months of June, July, and August. Small white roots usually form within a month or two. The cuttings are then taken out of the water and potted very carefully in small pots of light, sandy soil. They should be kept air-tight beneath a bell-glass for a week or two until the roots have taken hold of the soil, when they may be gradually hardened off. It is better to keep them under glass—the protection of a frame is sufficient during winter—and plant them out in March.

LAYERING ROSES

This method of propagation is reliable, though rather slow. It is adopted in nurseries with the less important kinds, such as the Moss Roses, Hybrid Chinese, Gallicas, etc. A plant from a layer is, of course, on its own roots, and such is very desirable when it is possible to obtain it, for every growth that develops is of the true rose; there can be no question of sucker growths from the stock as in the case of budded roses. I think it was Dean Hole who once related how someone took him to see a fine plant of *Maréchal Niel* growing on a wall and to ask his opinion as to why it did not bloom. As soon as Dean Hole saw the plant he said at once that it was not *Maréchal Niel* at all, but simply the "stock" upon which it was budded. Now such a thing could not happen from a "layered" plant or from one raised from a cutting.

Layering is best done in June, July, and August. It will be readily understood that only plants with growths close to the ground can be layered conveniently.

A bush is easily prepared for layering. The leaves are first removed from that part of the stem most readily brought to the ground.

The ground round about the plant to be layered should be well forked, and a liberal quantity of gritty soil admixed. A layering trowel is necessary. This is a flat, wedge-shaped piece of iron. A sharp knife and some pegs to secure the layers in position are also required. Take the shoot in the left and hold the knife in the right hand. Cut the shoot close to a bud, choosing one that is on the upper side. Pass the knife upwards for about one and a half inches, and in the centre of the shoot. Place a little piece of matchwood in the cut part to keep it open; then take the trowel and drive it into the soil at a point to which the rose shoot may be bent down conveniently. Work the trowel a little to each side to widen the aperture, then press in the shoot, previously giving it a slight twist, and secure it in position about three inches below the surface. The part that is cut should, when twisted, protrude like a tongue, hence its name; and this tongue should point downward when buried in the soil, for it is here that the roots are formed.

A little practice will soon enable the amateur to layer his own roses, and it is a capital plan by which to obtain an extra plant or two of any favourite rose. It is usually nine or ten months before the layers are well rooted. I do not advise taking them off the parent plant in less than this time. It would even be better to leave them fifteen months before transplanting. Gloire de Dijon

and other vigorous climbing roses may be easily layered in the summer months when growth is active.

If the weather continues dry after layering, it would be well to water them occasionally.

Quite fine masses of roses may be had by layering the shoots of an old plant and leaving them alone. I have seen as many as forty layers round about one old plant, and when the layers and the parent plant were in bloom together they made a gorgeous show.

GRAFTING

Although this method of propagating roses is employed chiefly by nurserymen, amateurs may care to attempt it. A greenhouse is essential. The operation consists in attaching a portion of the growth of a rose plant, termed the "scion," to that of a Brier or Manetti rose, termed the "stock."

We will suppose that the reader possesses a pot-grown plant of a choice rose—one for which he may have paid half a guinea—and that he desires to increase the number of plants of this variety. If propagation by cuttings were practised, not more than five or six plants would be obtained, whereas only two buds are needed for each graft. The seedling Brier is commonly used as a stock. Seedlings about a quarter of an inch thick, potted up in the winter and grown outdoors in pots during the summer, will be ready for grafting the following January or February. Three-inch and five-inch pots are used. The seedling stocks are brought into the greenhouse in November, where in slight warmth they

commence to grow. When sap is active they are ready for grafting, but nurserymen graft Briers even when quite dormant, and only pot them up a few weeks beforehand.

Supposing, then, we have active stocks ready for grafting. They are prepared quite easily by making a V-shaped cut down the bark, the stem having previously been shortened to within an inch or so from the top of the pot. The scion is cut in the form of a wedge so that it may fit into the V-shaped slit of the stock, the object being to bring the inner bark of the scion in contact with the inner bark of the stock. The scion is then bound up with raffia.

After grafting, the stocks are placed in a frame on a base of ashes or sand. It is necessary that the temperature of the frame should be not less than 80° both night and day. Some growers have the frames placed over the hot-water pipes. The stocks should be well watered before grafting. If this is done they will not need watering for five days after they are in the frame. No ventilation is given for the first six days; after this the glass light may be raised about one inch twice a day for half an hour each time. The plants must be looked over, and if water is needed it should be given with a very small water can, so that the scion is not wetted. After the sixth day the amount of air may be increased daily until the fourteenth day, when the glass light is left off altogether.

In about three weeks the little plants may be put out on the staging, and when roots are seen through the hole in the pot they may be potted into five-inch

in a loamy compost in which a fair quantity of silver sand is mixed. Great care is necessary in watering. A slight spraying with the syringe on bright days is essential, and the temperature must not fall below 55°. From 58° to 65° is a good temperature to maintain by day and 55° by night. The hard growths of the previous year make the best scions, but green wood, i.e. growths that have just flowered, may be used. When a variety is very scarce the tops are taken from the young, grafted plants, and they in turn are used as grafts. This system is not commended, for it has a tendency to debilitate the rose and is responsible for lack of vigour in many new roses.

There is nothing gained by grafting roses out of doors; indeed, it is rarely successful. But the French nurserymen graft many thousands of seedling Briers in the winter time and plant them in sand under *cloches* afterwards, transplanting to the open ground in May and June. Briers potted up into five-inch pots may be budded in June, and by so doing the trouble of grafting is obviated, for if these budded Briers are placed in a warm greenhouse in December, and the tops cut off close to the inserted buds, the latter will soon grow and make better plants than the grafted ones. This is a simple method of obtaining pot roses. Briers budded in June would make plants fit for forcing in eighteen months.

ROSE GROWING FROM SEED

This is most fascinating work, but comparatively few amateurs seem to engage in it. It is true that roses are

er sand
a slight
essential,
From
ay and
is year
ns that
riety is
grafted
system
bilitate
a many

out of
French
Briers
cloches
in May
may be
grafting
ed in a
cut off
ow and
his is a
dded in
eighteen

vely few
oses are



ROSE SOUVENIR DE GUSTAVE PRAT (H.T.). AN EXCEL-
LENT NEW VARIETY OF SULPHUR YELLOW COLOUR



ROSE MADAME SEGOND WEBER (H.T.), AN EXCELLENT
GARDEN ROSE OF SALMON ROSE COLOUR

not so easily grown from seed as Sweet Peas, but the details are soon mastered. Many amateurs are surprisingly ignorant of the method by which new roses are obtained, and seem to have no idea they must be raised from seed or originate as "sports." Years ago, say, prior to the early sixties, most new roses were raised from seeds gathered from flowers fertilised by natural agencies. A rose bloom contains stamens and stigmas, and, the conditions being suitable, pollen from the former falls on the latter, with the result that seed is formed. But the progeny from seed of self-fertilised flowers lacks the vigour of that obtained by cross-fertilisation, which is effected by applying the pollen of one flower to the stigmas of another. Acting upon this knowledge, rosarians commenced to cross-fertilise roses. It was carried out on a small scale many years ago, and there is no doubt that we owe to cross-fertilisation such fine old roses as La France and Maréchal Niel, although most probably the cross-fertilisation was due to natural agencies. In more recent times, the late Lord Penzance cross-fertilised the Sweet Brier with modern roses, and produced some lovely hybrids now known as the Penzance Briers. To-day growers in many countries are engaged in the work of raising novelties, and the output is remarkable. Quite ninety per cent. of the novelties are worthless, and have but a short life. This, however, need not deter the reader from making an attempt himself, because he *might* produce a dwarf-growing Maréchal Niel, a snow-white Marie Baumann, a blue Frau Karl Druschki, or a golden

Dorothy Perkins. Even if varieties of no unusual merit are raised, one may have the pleasure of growing novelties in one's own garden that no one else possesses.

The raising of new roses—both cross-fertilisation and seed sowing—should be carried out under glass. A greenhouse fitted with heating apparatus is essential, because it is advisable to have the plants—which are grown in pots—in bloom in March, so that the seed may have all the summer in which to ripen. By far the best plan is for each raiser to strike a line for himself. Why cannot some amateur take the Moss roses in hand, and try to obtain a yellow mossed variety, or another improve the lovely little Scotch roses? There are so many people raising new Hybrid Teas that their number will soon be quite bewildering. When the reader has decided which class of rose to take in hand, he must have the plants potted in early autumn, or, better still, procure a few plants in pots. If in five-inch pots, they will not need repotting. Big plants are not necessary; in fact, those of rather poor development are preferable. In January the roses are pruned and placed in the greenhouse. A temperature of 45° is high enough for the first few weeks, but it should be gradually increased to 55° at night and 65° during the day. When the flowers begin to open the petals are pulled off to enable one to get at the stamens, which must be removed with a small pair of scissors. Two or three days afterwards the pollen from the selected variety is applied to the stigmas of the rose that is to bear seed—that from which the stamens were removed.

Supposing one desired to cross the new variety Sunburst, with, say, the crimson rose Edward Mawley, to try to produce a deep orange-coloured Sunburst. The stamens of Sunburst would be removed soon after the bud showed colour, so as to prevent self-fertilisation. The stamens do not, as a rule, yield pollen until the flower is well advanced. After an interval of about two days, the pollen from the flower of Edward Mawley would be transferred to the stigmas of Sunburst. This is accomplished by means of a camel-hair brush, or the top of the little finger. The day temperature of the greenhouse at this time should be from 70° to 80° and 65° at night, and the atmosphere kept as dry as possible. The plants must have some water, but only enough to keep them alive. The chief anxiety is to obtain some good pods of seed; the plants cannot have much consideration. The heat and dry atmosphere, though detrimental to the rose plant, help the development of the seed. If the cross is successful, the pods soon swell, and by July they begin to change colour and ripen. The pods of these hybridised roses are sometimes beautiful, and varied in colour and shape. Some resemble miniature Jargonelle pears, while others are like small red tomatoes. It is best to keep the soil rather dry until fertilisation is assured, and then care is necessary not to give the plants more water than they need.

When the writer visited a noted rose grower in Ireland, he saw one large greenhouse containing hundreds of rose plants bearing seed pods, giving proof of the success

that attends systematic cross-fertilisation. The amateur can achieve similar success in a small way, if he has a greenhouse that can be kept warm in spring when the roses are in bloom. It may be asked why the cross-fertilisation of roses cannot be carried on out of doors. Unfortunately, the lack of sunshine renders the results problematical. If the reader possesses roses upon walls, he may make an attempt with them, especially if there is a glass coping over them, such as is sometimes used for peach trees.

After the pods are well developed, the plants may be placed out of doors, care being taken to protect them from birds by means of netting. The pods will ripen here, and may be left on the plants until late autumn. They should then be gathered, each with the stalk attached, and inserted in pots of sand, and placed in the greenhouse. The sand must be kept moist.

In November the seeds are sown in pots or boxes filled with sandy soil. The seed pods are broken with a hammer, care being taken not to bruise the seeds. Sometimes as many as thirty seeds are obtained from one pod, and probably each seed will produce a rose of different colour.

It is fatal to success to allow the small seeds to become dry before sowing. When the seeds are first taken from the pod, they are covered with a substance something like gum, and this, no doubt, is a natural protection against dryness. It is wise, therefore, to have the pots of soil prepared for the seeds before the latter are taken from the pods. In sowing, place the seeds on

the surface of the soil, and push each one down to the depth of half an inch with the blunt end of a lead pencil. If each seed could be sown separately in a thumb pot, so much the better; then the little seedling plant would not need to be transplanted. When several seeds are sown in one pot it is usual to lift each seedling when it has made two leaves, and place it in a tiny pot to itself, repotting it later as it becomes well rooted. If the cross happens to be a very choice one, it is a good plan to secure a bud from the seedling as soon as available, and bud it upon a brier stock potted up for the purpose.

When the plants are six or eight inches high, they may be planted out of doors, say, in May or June, but not earlier than this. It is unwise to sow choice rose seed out of doors. Some patience is needed in growing roses from seed, for the first seedlings do not usually germinate for three months after seed sowing, and some of them may not appear for a year.

CHAPTER XXVII

ROSE STOCKS

THE term "stock" is used to denote the Brier or other rose on which the choice named varieties are budded or "worked," as it is technically called.

There are several kinds of stocks, but the most general in use are: 1. Briers taken from the hedgerows. 2. Briers raised from cuttings (cutting Brier). 3. Briers raised from seed (seedling Brier). 4. Manetti. 5. Polyantha. 6. De la Grifferaie. 7. Rugosa.

Many of the fine blooms seen at rose shows are cut from "maiden" plants, i.e. those budded the previous year upon stocks. It is a well-known fact that the blooms of many varieties are much finer from "maiden" plants than from those of more than one year old, known as "cut-backs."

Stocks need to be planted in deeply dug soil. This is very essential so far as standard stocks and those taken from the hedgerows are concerned.

Hedge Brier. — These are used to form standard, half-standard, and dwarf standard roses, and weeping roses. The best way of securing them is to make arrangements with some farm hand for the collection of some of the Briers from the hedgerows early in October. Failing this, there is nothing but to go in search of them

oneself, armed with axe, saw, and knife, and wearing a very old suit of clothes. In "A Book about Roses," Dean Hole says that he always knew when the time had arrived for planting Briers, as his Brier man then appeared in church. Having obtained a supply of good Briers, with stems neither very green nor withered, cut off a considerable amount of the "knob" or root stock, but preserve all the fibrous roots. Reduce the length of the stems to from two and a half to four feet. All lateral shoots should be cut off as closely to the stem as possible. Plant in rows three feet apart, placing the Briers one foot apart in the rows. The roots must not be planted more than about seven or eight inches deep, and the soil should be trodden firmly about them. As the stocks sprout into growth in spring, reduce the number of shoots on each to three or four near the top. The bud is inserted in two or three of these side shoots in summer, and the uppermost shoot is left on to be budded in case the other buds fail.

Cutting Brier.—This is obtained from cuttings of the Wild Brier. They are preferred by exhibitors, as the roots keep nearer the surface and consequently benefit more quickly from manurial top dressings. Moreover, the flowers appear earlier. Except for rose growing for exhibitors, I do not recommend the cutting Brier. It produces a big plant, but gives rise to innumerable sucker growths. These often run for a yard or two beneath the surface before they appear above. The cuttings are made by cutting the well-ripened current year's growths of the Brier into pieces, each ten or twelve inches long.

All buds or eyes, except three at the top, are removed, and the base of the cutting is formed by cutting across beneath a bud. Plant in well-dug soil in rows fifteen inches apart and about two inches apart in the rows. Leave about three inches of the cutting above the soil. The best time to make Brier cuttings is in September and early October. They remain in the bed of soil until the next autumn, when they are dug up and the roots and tops trimmed back and "heeled in," i.e. placed in a shallow trench, the roots covered with soil, until February or March. They are then planted out (ready for budding in July) in rows three feet apart, each plant being about eight inches from the other in the rows.

Seedling Brier.—Plants of the seedling Brier are preferably obtained from a grower. It does not pay for amateurs to raise their own. The seedling Brier has a long, tapering root, which goes deeply in search of food, and for this reason the autumnal crop of blossom is far superior to that produced by plants on the Brier cutting. Readers planting roses for garden display will be well advised to obtain plants on the seedling Brier. The bud is inserted on the "collar" of the plant—between the top of the root stock and that point from where the growths start, so that in planting, this small portion of the root stock is left above ground. The seedling Brier should be put out in rows as advised for the Brier cuttings.

The Manetti.—This is an Italian rose introduced many years ago by Signor Manetti. It is a tender stock, and of little value save for budding Ramblers upon and some

strong-growing hardy Perpetual and Hybrid Tea roses. Many rose nurserymen have now discarded this stock. No doubt many failures in rose growing can be traced to its use. The Manetti is raised from cuttings in the same way as the Brier.

Polyantha.—This is the single-flowered form of the Rambler race. Tea roses grow remarkably well upon the *Polyantha*—at least for a time. This stock may be raised from seed and from cuttings.

De la Grifferaie.—This is a valueless stock, but is largely used by foreign, especially Dutch, growers, and readers are warned against obtaining plants budded upon it.

Rugosa.—This is the Japanese Brier. It is used largely for standard roses by foreign growers. Wonderfully large heads of growth are produced by plants on the *Rugosa* stock. They have splendid, fibrous roots, but do not make attractive specimens, lacking, as they do, the clean, straight stem of the hedge rose.

All these stocks are planted at the same time as those first mentioned.

CHAPTER XXVIII

MANURES FOR ROSES

THERE is probably no detail connected with rose growing that causes the beginner more difficulty than that of manures. There are so many patent mixtures on the market that he is quite bewildered as to what to procure. Again, amateurs do not much care for the somewhat unpleasant work of applying farmyard manure to the soil, so that they have recourse to artificial fertilisers, and, by using them too freely, often cause lasting damage to their plants. Concentrated manures are by no means to be condemned, but they need to be used with care.

All rose growers are agreed that farmyard manure is an excellent article, but the light, littery manure obtained from town stables is very often of doubtful value, consisting, as it does, of little but straw. Well-rotted manure from a farm where it has been trodden down by horses and pigs is ideal for roses, especially for those in heavy clay soil. For light gravelly and sandy soils cow manure is best. An analysis of a ton of farmyard manure shows it to contain about sixteen and a half hundredweights of water and three and a half hundredweights of dry matter. The latter matter includes about twelve pounds of potash and seven pounds of phosphorous, but no lime. Lime, however, is a very necessary ingredient in garden

soil, and it may be given to roses very conveniently in the form of basic slag. This should be applied to the lower soil when trenching, at the rate of six or eight ounces to a square yard.

In preparing a bed for roses, farmyard manure should be freely mixed with the lower soil, the basic slag then being scattered and dug in. The subject of preparing rose beds is fully dealt with in another chapter. If the reader cannot obtain farmyard or cow manure, what is he to do? He will find Wakeley's Hop Manure an excellent substitute. At planting time each plant should receive a good handful of bonemeal, this being scattered on the soil just before applying the final covering. The bonemeal must be hidden from view at once, or the sparrows will have the lot

The question of manuring established roses is an important one. It is necessary partly to supply the potash and phosphorous that is lost by the removal of growths at pruning time and when flowers are gathered in summer. The rose is a "gross feeder," and to replenish the food supply so that the plant may continue to yield fine quality blossoms, annual manurings must be given, and, in addition, waterings with liquid manure from May to August.

The reader should be warned against manuring the roses too freely the first season after planting. Thousands of plants are killed annually in this way. The beginner wishes to have blooms as large as those shown at the exhibitions, and reads that the use of some special fertiliser will ensure them. He uses it recklessly, with

deplorable results. Or, instead of waiting until the plants are established, he enriches the soil when planting, and supplements this with various doses of nitrate of soda, guano, superphosphate, etc., with the result that the fibrous roots of the roses are destroyed. If the soil has been deeply dug and farmyard manure and basic slag added in autumn before planting, and a little bonemeal given to each plant when set out, no further stimulant is needed until after the first crop of bloom is gathered; to help the second crop, very weak liquid manure may be applied about once a week.

To established roses—that is, those that have been planted more than one year—an annual dressing of half-rotted farmyard manure should be dug into the beds in autumn. Some rosarians leave this on the surface of the soil during winter, and dig it in in the spring, but all good growers condemn this practice; the manure tends to keep the soil wet and cold. Amateurs often wonder why manure should be given to roses when they are dormant, but the finer particles of the manure are washed down by winter rains and are ready for the plants' requirements when growth begins in spring.

In February an application of Tonks' Manure should be given. A brief account of this may be advisable. In "The Rosarian's Year Book" for 1889 there was an excellent article on artificial manure for roses, by Mr. E. Tonks. A copy of the analysis of the ashes of a rose plant was given, and Mr. Tonks compiled from these statistics a preparation now known as Tonks' Manure, which is very largely used by rose

ants
and
oda,
the
has
slag
meal
ilant
red ;
may

been
half-
ls in
the
all
ends
nder
are
shed
ants'

ould
ble.
was
by
shes
oiled
as
rose



ROSE ANDRÉ GAMON (H.T.), ROSE AND CARMINE. A PROMISING
NEW VARIETY FOR THE GARDEN



ROSE MRS. PETER BLAIR (H.T.). A GOOD LEMON YELLOW VARIET

growers to-day. The recipe for Tonks' Manure is as follows :

Superphosphate of lime	..	..	12	parts
Nitrate of potash	..	..	10	„
Sulphate of magnesia	..	..	2	„
Sulphate of iron	..	..	1	„
Sulphate of lime	..	..	8	„

It is applied in February to the surface of the rose beds, at the rate of quarter of a pound to a square yard, and then hoed in. The manure should be stored in a dry place. A lighter dressing may again be given late in May should the spring rainfall be heavy.

One of the best natural manures is nightsoil. Burnt earth or burnt garden refuse is added liberally, and the material, after lying buried for twelve months, may be dug out and applied to the rose beds in autumn, or in February, and lightly forked beneath the soil. This forms a splendid stimulant if applied in June in liquid form. Drills are drawn between the plants, and about six inches from them. The manure is made into liquid by adding housemaid's slops and water; it is poured into the drills, and the latter are covered in the next day.

An excellent substitute for nightsoil is native guano. I have had splendid results from its use.

Fowl manure is an excellent article, but it should be used cautiously. It is, I think, best applied in liquid form. Two bushels tied in a porous sack, and placed in a cask or tank holding one hundred gallons of water,

and allowed to soak for three or four days, make an excellent stimulant not only for roses, but other garden crops. Those who shrink from the trouble and unpleasantness of making liquid manure will find Malden's Patent Infuser a great boon. The manure is placed in the Infuser and suspended in a cask of water. Any kind of manure, natural or artificial, can be infused, and a clear liquid obtained.

A first-rate mixture for established roses is one hundredweight each of kainit, bonemeal, and blood manure, mixed with three barrowfuls of dry potting soil. After two days it is ready for use. A good dressing may be applied in April, May, and June, allowing a month to intervene between each application. Good recipes for liquid manures are as follow :

Half a peck of soot to eighteen gallons of water.

Half a peck of horse manure to fifteen gallons of water.

Half a peck of cow manure to fifteen gallons of water.

Half an ounce of nitrate of soda to one gallon of water.

Half an ounce of sulphate of ammonia to one gallon of water.

One pound of guano to eighteen gallons of water.

One of these may be given once or twice a week from the time the buds are visible until they show colour. It is a better plan to vary the kind of manure rather than to use the same continually. Vigorous plants should be more liberally manured than weakly plants. An unhealthy plant cannot be made strong by doses

MANURES FOR ROSES

209

of liquid manure. Transplanting into fresh, though not rich, soil would do more good.

Finally, I would strongly recommend spent hops from a brewery as an excellent top dressing for rose beds. They may be put on two or three inches thick and liquid manure applied over them. If objection is taken to their appearance, they may be covered with fine soil. A mulching such as this, especially on light, sandy soil, is of inestimable value in a hot season.

CHAPTER XXIX

DISEASES AND INSECT PESTS

UNFORTUNATELY, the Queen of Flowers is liable to be attacked by many different pests. A brief perusal of the best authorities on the subject shows that the number of insects and fungi actually recorded as infesting or doing damage to rose bushes in gardens or hothouses reaches the enormous total of over two hundred. Of course, this does not signify that in one particular garden or even in a single district, there may be found anything like that number, but it shows that throughout the whole country, at one time or another, these pests have actually been found attacking the rose. A few gardeners have never had any serious trouble with their bushes, but most reports make it apparent that greater or less damage is constantly being done by their numerous enemies. In this chapter the most common pests are dealt with, notes on their identification given, and the best means of eradication carefully considered.

FUNGOID DISEASES

Fungi are vegetable growths of the very low orders; they do not have the green colouring matter of the higher plants, so they cannot manufacture their own food supplies. The nutrition necessary to grow

and development has to be stolen from that manufactured by other plants for their own use, hence fungi are totally dependent on "host" plants, which they prey upon and rob with detrimental results.

MILDEW.—The fungus which is most common and does the greatest amount of damage in rose gardens belongs to the Mildews, or the group of fungi known scientifically as *Erysipheæ*. This Blight, or Mildew (*Sphaerotheca pannosa*), is known to all gardeners who are interested in roses. Its name, Mildew, or Meal-dew, is derived from the characteristic appearance, and it will be found parasitic upon the leaves and younger growths of bushes, forming a fine, greyish-white, dust-like cloud over all the affected parts. After the white patches have been seen for a few days a distinct alteration in the appearance of the foliage is noticeable; the parts attacked by the fungus become distorted; leaves curl up, twist, and assume a blistered appearance, while the soft flower stalks, and, soon, the buds, swell to an abnormal size and have a distorted, unhealthy look. A lens will show the felted mass of mycelium covering the foliage. Some varieties of the rose are more liable to attack than others.

Remedies.—Whenever the first signs of this fungus are noticed, action must be taken immediately. For light attacks fine sulphur or, better still, a mixture of equal parts of fine quicklime and sulphur dusted on the affected areas will soon check the disease, it must be brought into actual contact with the Mildew in order to prove effective. On a small scale the sulphur may

be dusted over the foliage from a muslin bag, but rose enthusiasts troubled with the fungus should obtain one of the sulphur blowers now on the market. Bad attacks will only succumb to more drastic treatment, and for this potassium sulphide solution or Bordeaux mixture is the best. Potassium sulphide or liver of sulphur solution is the easier to prepare; one ounce of the brown substance is dissolved in two or three gallons of soft water and sprayed on the bushes. To make Bordeaux mixture one ounce of good copper sulphate is dissolved in a little boiling water in a bowl; lime water is then prepared in the usual way by dissolving a little lime in water, and a gallon taken and diluted with another gallon of rain water; the copper sulphate solution, when cold, is then poured slowly into the lime water with constant stirring, and the material sprayed on the plants from a syringe with a narrow nozzle; keep stirring all the time, and use the mixture the same day as made. It is the best fungicide known to science.

Wrong methods of cultivation are often the cause of Mildew being so virulent. Roses grown in a draught position are highly susceptible to attack, and a cold, wet, badly drained soil also tends to encourage the disease. Whenever necessary, see that stones or large cinders are placed in the bottom of the hole in which a rose is planted to prevent water stagnating round the roots. Roses grown in a moist, badly ventilated house suffer from mildew; a fresh, healthy atmosphere is an absolute necessity for successful forcing. Injudicious watering or manuring is also bad, and every care

must be exercised to see that the best cultural methods possible are practised.

Fresh plants brought into the garden may cause a renewal of the disease, and in a humid, warm season it spreads with startling rapidity. Whenever new bushes arrive from the nursery they ought, therefore, to be sprayed with the fungicide as a prevention against the introduction of any fungoid disease.

RUST.—A rust called *Phragmidium mucronatum* attacks rose bushes in some localities. This fungus appears in two forms; The summer condition, at one time known as Rose Rust, or Uredo, shows as a pale yellow dust which, when examined microscopically, is seen to consist of roundish, prickly bodies. The autumn state, known popularly as Rose Brand, is formed of rows of cells having a brown appearance, and still bearing the tiny, warty, prickly growths. Both forms appear on the under sides of the leaves in scattered colonies; it is not so destructive as the Mildew.

Remedies.—As soon as the rust is noticed, pick off all infested leaves and burn them. Sulphur has slow effect on this fungus, but Bordeaux mixture sprayed from below removes it from the bushes.

ROSE LEAF BLOTCH OR BLACK SPOT.—This fungus is becoming more widely distributed. It is not, by some, considered a destructive pest, but as it weakens the bush by preventing the foliage from performing its work of digesting the plant foods absorbed through the roots, and by causing premature defoliation, some means of eradication should be adopted. The foliage of a fine rose

is spoiled by the blotches on the leaves, and the flowers are never at their best once the fungus gets well established. This disease, *Actinonema rosæ*, is characterised by the presence of large purple or dark brown patches which appear on the upper surface of the leaves. The mycelium is found, on microscopic examination, to be partly on the outer surface of the leaf, but some of the hyphæ, or threads, have penetrated into the tissues to absorb more nourishment from the bush. Small, very dark spots may be noticed on the discoloured areas; these are the fructification of the fungus, and contain the colourless spores.

Remedies.—No real cure has yet been found for this fungoid pest, though I have heard of a proprietary fungicide called Mo-ffic being used with some success. All leaves which fall from the bush should be carefully gathered and burned whenever they fall, so as to prevent, as far as possible, a recurrence of the attack. For a light attack the affected leaves should be removed and the plant sprayed with Bordeaux mixture or liver of sulphur solution.

CANKER.—Some roses are liable to Canker, which, if left unchecked, frequently causes the death of the bush. Bad, corky, warty swellings appear at the place where budding or grafting has been carried out, and often at various places along old, strong shoots. Another type of Canker, however, has made its appearance, and promises to be much more destructive. Some of the rose stems may be noticed swollen and covered with a corky growth, generally near the base of the shoot; in a bad

attack the bark will be split and twisted back so as to expose a gaping wound. The fungus which causes this, *Coniothyrium fuckelii*, produces yellow spore cases from which spores are cast to carry infection to other parts of the bush or to bushes near at hand.

Rose growers must beware of this disease, and remember that it will spread rapidly if preventive measures are not taken early. The shoot which has cankerous growth is, naturally, much weakened, and after a winter's exposure to rain and frost the stem cracks and the well-known symptoms of Canker are emphasised.

Remedies.—Entrance of the fungus must take place through some wound, crack, or laceration. A good sharp knife or the best and keenest sécateurs ought to be used in pruning so as not to damage the shoot in any way. Up to the present the best remedial practice for all cankerous growth has been to remove the corky matter round the centre of attack by means of a sharp knife so as to reach the fresh wood; the diseased parts are then burned and the wood receives an immediate coating of creosote or, better still, Stockholm (wood) tar.

All varieties, forced or hardy, are liable to contract this disease (*Coniothyrium*). Good, preventive work is to burn all rubbish, including prunings, from the rose border; remove the surface soil round every bush which was attacked, and sterilise it or replace a fresh compost; avoid fresh or strong nitrogenous manures, which induce excessive growth that seldom ripens; prevent plants, as far as possible, from receiving a severe check, and never let insects do serious damage to the tissues.

Still other fungoid diseases are occasionally experienced, more especially in greenhouse cultivation. No real cure for any of them is known, but whenever their presence is perceived, pick off all the leaves which are badly attacked and spray the whole plant with fungicide.

INSECT PESTS

Insects attack the rose, either as larvæ (sometimes called grubs or maggots), or as mature insects. Most damage is done by the larval form, for in that state the pests have a voracious appetite, and they destroy much of the foliage and young growth.

APHIDES.—Perhaps the worst, because they multiply with surprising rapidity, are the Green Flies, or Aphides. The Rose Aphis attacks all young twigs and leaves, and apart from the unsightly appearance of the branches does extensive damage by sucking nutritive sap from the bush and by closing the breathing pores of the leaves with its gummy excreta. These plant lice are too well known to require description; they usually congregate in dense colonies on the green shoots.

Remedies.—Fumigation by any of the recognised proprietary substances is effective in killing the flies, but repetition is necessary at regular intervals until they are thoroughly cleared away. If the pests attack bushes in the open, and even in the hothouse, spraying with a good insecticide is a satisfactory course to adopt. I know of no better or handier substance for this purpose than Abol, which should be used as directed. A teaspoonful each of paraffin oil and soft soap in one

gallon of tepid water, churned into a milky liquid, can be employed without any scorching effect, and a weak solution of quassia chips in soapy water, or one of the quassia insecticides advertised in horticultural journals, is an excellent remedy.

SAWFLIES.—Far more destructive than the Aphides is a large family of pests called the Sawflies (*Tenthredinideæ*). Many species are found in rose gardens; they are all armed with a saw-like contrivance with which they cut up, eat, or destroy the leaves, and, in some cases, the soft herbaceous twigs produced by a healthy plant.

The yellow larva of one of the Sawflies (*Pæcilosoma candidatum*) voraciously devours the young foliage, and, as soon as its appetite is appeased, bores into the soft pith of the branches and causes them to wither and die. When this sign of its presence is perceived, cut off each twig which contains the grub and burn it. Insecticides are of little avail, but if used in May and June they will help to keep off the tiny, black, hairy fly with spotted head and thorax, and prevent it from depositing eggs on the bushes.

Other Sawflies, the *Hylotomæ*, are leaf-eaters. *Hylotoma rosæ* is a small fly of dirty yellow colour and having a black head and thorax; the larva, or grub, is green, with yellow and black spots, and is hatched from the egg in a few days. It destroys many of the leaves and before it arrives at the pupal or quiescent state spoils the elegant appearance of the foliage; it pupates in the ground.

Another Sawfly, *Eriocampa rosæ*, is black, about eighth of an inch long, and some of its legs are spotted with white. The larvæ are twice that size, and light green in colour, with orange coloured heads. This grub eats the upper surface of the leaves, causes them to die, and then they fall off; when satiated, the larva passes into the soil and spins a cocoon underground. In some districts these larvæ are very numerous, and are known as Rose Slugs.

Occasionally the edge of a leaf is noticed rolled up or folded neatly over; this is the retreat of the grub of *Blennocampa pusilla*, another black, small Sawfly, with brown, tinted wings. The grub is short, stout, bristled and green, with yellow or brown head. Damage is done by it in two ways; it eats the foliage and prevents the leaves performing their natural functions by rolling them up.

The tiny, spotted green grub which lies curled up on the under surface of leaves, is from another destructive Sawfly, *Emphytus cinctus*. That which makes a nest of small pieces of leaves is *Lyda inanita*, and the holes to all appearances torn in the leaves, are due to a species called *Cladius*. Many others may be found in gardens and they do much damage if left unchecked; in some cases, from two to six generations are produced in one season.

Remedies.—Before dealing with these destructive pests the gardener must know something of their habits. The fly lays her eggs on the branches or foliage; when the eggs hatch out the larvæ immediately start to feed

on the foliage, and when they become surfeited they pass the quiescent state underground, or else they burrow into the stems or midribs of the leaves. Every winter, then, the gardener must remove the soil round each bush which was attacked by Sawflies, digging as deeply as he dare without injury to the roots. This is then sterilised, or a new compost substituted. Insecticides sprayed on the bushes will help to keep the flies away, and will tend to prevent too extensive damage by the larvæ. The flies are generally sluggish in dull, damp weather, and hand-picking or netting will be most beneficial.

Hand-picking of the larvæ is slow, tedious, and scarcely profitable. In American gardens a sheet of linoleum, slit to the centre, is kept smeared with grease, treacle or tar. This can be easily placed below the bushes in such a way that the stem is in the centre; on shaking the branches vigorously, many larvæ fall on the sticky mass, and may be killed or left to die there. A gardener can speedily pass round a large border with this apparatus, and the linoleum will serve the purpose for many years. A piece of stiff brown paper smeared with treacle or gum serves excellently well for occasional treatment.

Hellebore extracts or arsenical washes are the only substances which kill the larvæ. The arsenical mixture is best prepared by stirring one ounce of some arsenic poison, such as Paris green, lead, or iron arsenate or the like into some four or five gallons of lime water; keep stirring when spraying. Hellebore powder can be mixed

in water containing a little syrup or treacle to get them to adhere to the bushes, or the hellebore preparation advertised can be used as a substitute. Stringent systematic measures are the only practice to which the family of pests will succumb.

MOTHS.—The larvæ of various moths occasionally feed on the buds and foliage of rose bushes. The well-known *Winter Moth* will select the rose in preference to many other shrubs, and the *Lackey Moth* has also been found frequenting a rose garden. The most common pests of this kind, however, are the grubs of the smaller moths, *Tortrix* being the worst species. The grubs roll up the leaves to form a safe retreat, and they do further damage by feeding on the leaves and twigs. When not feeding, they bind themselves by a silk thread to the leaves, and if the branch is shaken lower themselves towards the ground.

Remedies.—Hand-picking and squeezing between the finger and thumb are still the most effective methods of eradication, but the arsenical poisons advocated in the previous paragraph may be used for the larvæ of all moths.

GALL FLIES.—Who has not noticed the hard, roundish gall, covered with moss green or red-tinted rough hairs on the wild rose? This, known as the Bedeguar Gall, is the work of an insect, and is sometimes found on cultivated bushes. The insect is a small one; it pierces the bark of a twig, deposits its eggs inside, and the result is the well-known Bedeguar. If the gall is cut open it will be found tunnelled into many chambers

each containing a white grub. These grubs, after feeding for a time, become pupæ, and finally emerge as the black, four-winged fly, *Rhodites rosæ*.

Other galls, much different in appearance, may be noticed on the leaves and green shoots. Some are smooth, pea-like swellings; others are covered with hairs or bristles, and some may be irregular blisters appearing on the leaves; all contain a tiny larva, thriving on the tissues and sap of the bush. The small gnat, *Cecidomyia rosæ*, is the most common of these pests.

Remedies.—Insecticides keep the flies off the bushes, but as the galls are scarcely ever very numerous, they should be removed and burned whenever noticed.

BETLES AND CHAFERS.—Beetles may gnaw inside the buds and destroy the blooms. An active little pest is the Rose Bug, Rose Beetle, or Rose Chafer, as it is variously called (*Cetonia aurata*). It is a pretty little insect, with glossy, golden-green back and nicely-marked wing cases, the under surface of its body being brown.

Remedies.—Insecticides used when the plant comes into bud and hand-picking will keep them in check; a vigorous shaking of the bush disturbs them.

ROSE SCALE INSECTS.—The rose is not exempt from attacks of scale insects, forced roses suffering most of all. These insects attack the stems and branches; they cling to the bark and suck the sap from the bush, and if the host is badly attacked it yields very inferior flowers, and will take a year or two to recover. The scales are like tiny shells; they generally exist in colonies, and, to all appearances have no movement. *Aulacaspis rosæ*

may be recognised by the tiny, roundish, grey scales with light brown spots.

Remedies.—Gishurst compound is the speediest remedy if used as directed; washing with strong Abol solution is effective; and Fir Tree Oil and Bordeaux mixture will also kill them.

EARWIGS.—These well-known garden marauders are, I venture to say, known to everyone, and they prove distinctly harmful to the roses during certain seasons. Earwigs are not so markedly destructive as some of the pests we have just mentioned, but they climb up the stems and make their homes inside the blossoms. They are especially obnoxious when found in the heart of a lovely flower.

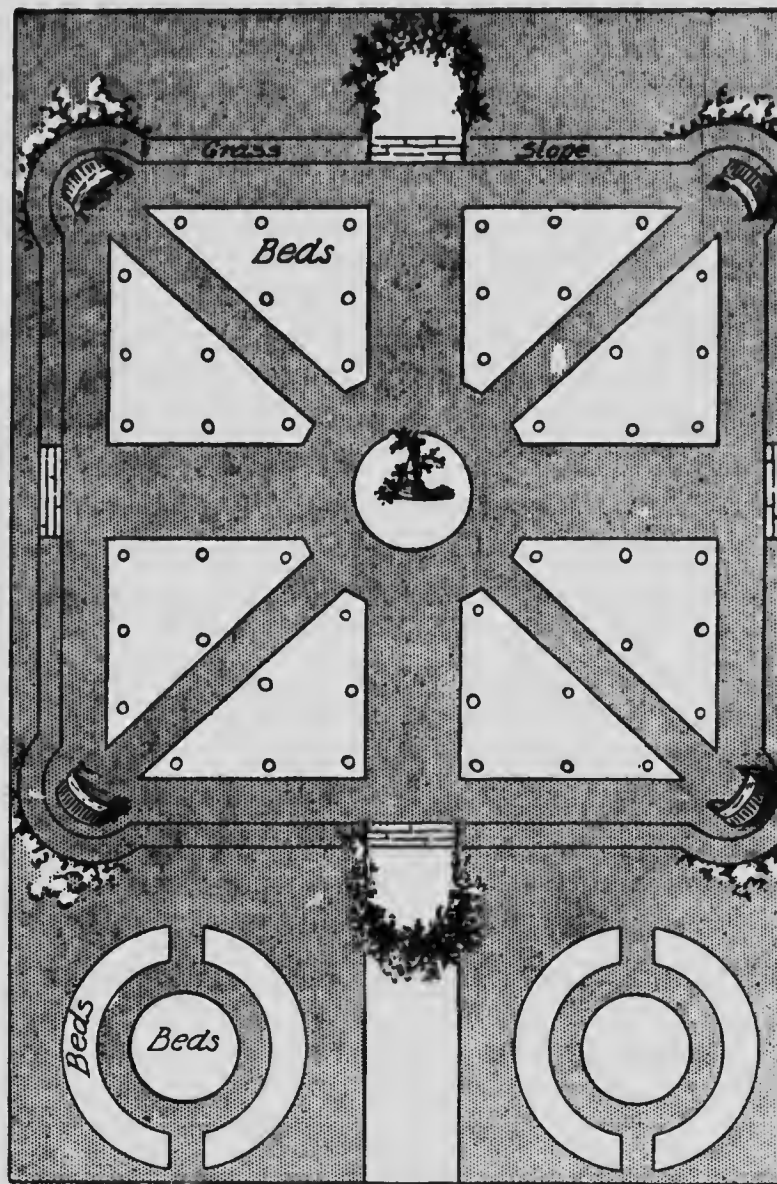
Remedies.—Traps should be laid for them if they cause annoyance in the rose garden. Small flower-pots, filled with crumpled paper or dry moss, and placed inverted here and there among the bushes, will attract them. If they have already established themselves among the blooms, pull off all old or withered flowers, and place a few hollow flower stems from the herbaceous border among the branches; they will hide in these traps during the day-time. All traps should be examined daily, and the pests shaken out into hot water or slaking lime.

THRIPS.—The rose lover is occasionally annoyed because his flowers are spoiled by a tiny insect called Thrips. These pests attack the petals of the roses and spoil their appearance. Lack of moisture is the cause, and the remedy is to keep the soil moistened and syring the plants. It is dangerous, of course, to do this when

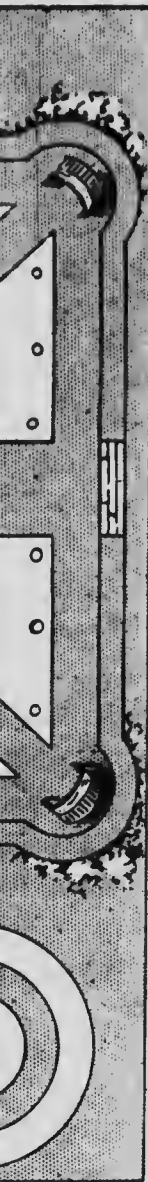
the bloom is out, but if the practice is continued until the buds swell, and if a final spray with some mild insecticide is carried out just before flowering, little trouble from this pest need be feared. When syringeing use lukewarm, rain or soft water.

Pests are no respecters of varieties, and, from the common Dog Rose of the hedgerows to the latest speciality of our catalogues, all are liable to attack. Rust and mildew, it is true, spread quicker on the leaves of some varieties than others, but the bush which suffers most is that which is in poor condition. Attend to cultural details, and each bush will be strong, healthy, able to bear attack, and sturdy enough to suffer no ill effects from insecticides and fungicides.

Don't fancy that because the foliage is attacked the flowers will not suffer; if one part is "ill" or injured the rest of the plant cannot be in the best of health. Watch for the first signs of disease and attacks from pests; immediately take stringent measures to prevent the trouble spreading, and in this way keep the bushes clean.



Plan for sunk garden of roses



PART IV

Rose Growing under Glass

CHAPTER XXX

ROSES FOR THE GREENHOUSE

ALTHOUGH roses are very frequently grown under glass in the company of other plants, they are most successful when a greenhouse is devoted to them alone. When there is a mixed company it is impossible always to provide conditions equally suitable to all, and the roses are liable to suffer. If possible, then, the roses should have the glass-house to themselves. The simpler it is the better. There should be the maximum amount of light, and for this reason part of the sides and ends should be glass; indeed, a wall of some two feet in height would be ample. All the rest might be and really should be of glass. The span-roofed house is the best type, and the ends should point north and south. This would form an ideal house for roses, and an ideal position for it would be in a meadow, on that part of it where the soil had been trenched the previous year. This is, of course, a counsel of perfection to which perhaps only the most fortunate among us may be able to attain. If one can manage it, it is really worth while

when one considers that it is possible to have a real rose garden under glass, and that the blooms will come to such perfect beauty there as one can only expect out of doors through some unusual goodwill on the part of the clerk of the weather. Every class of rose might be represented, even to the lovely briars and Scotch roses. A house thirty feet long, eighteen feet wide, ten feet high in the centre, and five feet high at the sides, would be an excellent one for roses. A central staging five and a half feet wide and a staging two feet six inches wide around each side, would complete the equipment. There should be brick sides, with provision on the top for slates to be covered with ashes or shingle. A convenient height for the central stage is three feet and for those at the sides two feet. There should be one row of four inch hot water pipes alongside each path, and an additional row under each staging would be a great advantage, for bottom heat is very beneficial to roses.

I would strongly advise the amateur to pot his own roses. Firstly, they are superior to those purchased which are usually grafted in pots, and the roots are not nearly so vigorous as plants from the open ground. Secondly, they are much cheaper, because not only do plants established in pots cost about 3s. 6d. each, but there are such charges as carriage to consider, and these items increase the cost of each plant to 4s. or 4s. 6d. If the amateur pots his own roses they would not cost him more than 1s. 6d. to 2s. each. Assuming, therefore, that this advice is followed, I would recommend that the plants be potted the first week in October. Select o

order from the grower nice, bushy maiden plants, and pot each into an eight-inch pot. Prepare the plants by cutting back the roots to within four or five inches in length, and the tops to twelve to fifteen inches. Mix a compost of two parts of turfy loam, one part of one-year-old cow manure for preference (but other would do), a little silver sand, and about four pounds of bone-meal to every two bushels of compost. Mix all well together, and keep from rain. The flower-pots need to be clean and well drained, either with crocks or oyster shells. Put a handful or two of the lumpy portions of the compost on the drainage, and make firm with a round piece of wood the thickness of a broom-handle. Holding the plant firmly in the centre of the pot with the left hand, put in the compost with a flat wooden trowel. Fill the pot about half-full, and make the soil firm; then add more compost and again make firm, proceeding thus until the soil reaches to within half an inch of the rim.

When potted, put the plants out of doors on a bed of ashes or soil, stand closely together, and after one good watering fill between them and cover the pots entirely with ashes. Here the plants remain until May. Prune them towards the end of March to within five or six inches of the top of the pot, and late in May transfer them to the open ground, two feet distant from each other, the pots plunged in ashes up to, but not over, the rim; keep the soil moist. Good blooms will be obtained in summer. The following December they may be put in a cold greenhouse or frame, pruned in

January or February as desired, and afterwards transferred to a heated house.

It may be advisable here to give brief details of cultivation the first season under glass. Unless the roses are Tea-scented varieties they succeed much better if only gently forced. A temperature of about 45° to 50° by night and 55° by day is quite high enough to start with. This may be increased to 60° by day as the foliage develops.

The hardier Hybrid Perpetuals and Hybrid Teas may be grown in unheated or very slightly heated greenhouses. Many of the roses seen in bloom in May have had very little artificial heat, but to obtain blooms in March artificial heat is, of course, essential. The plants having been pruned to buds pointing outwards, the main growths should be tied down to form a shaped base. This is done by placing a string around the rim of the pot, tying raffia to the shoots, and gently drawing the latter down and attaching the raffia to the string.

As new growths develop, and when buds begin to show, a neat green stick is given to each shoot, so that a perfect pyramid is formed. Do not give much water at first, as the plants do not need it, but they must not be allowed to get very dry. It is a good plan to look over them every morning and tap the pots with a thick stick; if a clear, bell-like sound is given out, the plants should be watered. Syringe freely on bright mornings and be sure to syringe well beneath the foliage in order to check red spider, which usually attacks the lower surface of the leaves. As the growths develop and flow

buds are seen, give weak doses of liquid made from fresh cow manure and soot, two of the former to one of the latter.

I strongly advise giving roses plenty of air from the commencement if blooms are not wanted before May ; (but if required in March little or no ventilation is needed beyond that which the plants receive through chinks in the glass). It is a mistake to keep the house in a stuffy condition. The atmosphere should be "buoyant," and to secure this just a chink of ventilation should be afforded for an hour or so each day. Small wooden shutters let in the side of the house are excellent. These can be opened a little almost every day without allowing a rush of air to enter, and they keep the atmosphere "sweet."

FEEDING ROSES is a term used by gardeners when liquid or other manure is applied to the plants. Roses in pots, if well rooted, are greatly benefited by strong liquid manure as soon as the flower buds are seen ; but to give liquid manure to weak plants is fatal. Many growers of pot roses do not repot their plants every year, consequently the ball of soil becomes almost a mass of roots. Such plants may receive liquid manure twice a week as soon as the flower buds are visible. If given before, rank growth is encouraged which often fails to bloom. Cow manure and soot make a capital liquid food. Half a bushel of fresh cow manure is put into a porous bag with a peck of fresh soot, and the bag is immersed in a cask holding about thirty-six gallons of water for two or three days. The liquid should be diluted

to half strength before use, and may then be given twice a week.

Green fly must be kept down, and one of the simple remedies is "Auto Shreds." A sixpenny packet will fumigate a house of a thousand cubic feet capacity. The shreds are laid on a brick and ignited, the flame being at once blown out. The house is soon filled with strong smoke, which quickly destroys the green fly. Mildew may be kept in check by spraying with Jeyes' Horticultural Wash. It is most advisable to take precautions on the first appearance of insects or mildew. Red spider is an insidious pest that causes the leaves to look rusty. The spiders may be seen on the under surface. A dry atmosphere is favourable to their increase, and, conversely, they dislike moisture. When the buds show colour, withhold liquid manure, and if possible place the plants in a cooler temperature, shaded from hot sunshine. A cold frame with glass protection is suitable, or even a small tent if well ventilated.

After flowering, Hybrid Teas and Teas, if they bloom in March or April, will yield a second crop. The plants should be lightly pruned and the soil top dressed. The latter is accomplished by removing an inch or two of the surface soil, scattering on a little Clay's Fertilizer and replacing the old soil with loam and manure in equal parts. About a small tablespoonful of Clay's would be enough for a plant in an eight-inch pot. Keep the plants in a temperature of about 55° to 60° by day and about 8° or 10° lower by night. Syringe the plants freely on bright days. The second crop of flowers will

be out before the outdoor roses. It would be well to provide roller blinds to the greenhouse, so that the plants may be shaded during bright sunshine in April and May. After the second lot of flowers is over, put the plants into a cold house or frame for a few days, or if the end of May has arrived they may be put outdoors at once.

Late in June such as require it should be repotted, but annual repotting is not necessary providing the plants are well fed. Top dressing and liquid manure will supply their needs and give much better results.

Hybrid Perpetual roses are best placed outdoors after the first blooms are over. All pot roses out of doors must be watered, of course, and it is a good plan to plunge the pots in soil.

ROSES PLANTED OUT under glass would benefit greatly if the roof of the house were removable. If this cannot be done, then an abundance of air should be given during summer. The plants need a period of rest, and this is provided by withholding water for two or three weeks, usually during August.

Climbing roses under glass should be encouraged to make as much growth as possible during early summer in a warm, moist atmosphere; in late summer and autumn, coolness and an abundance of air are essential. By September air should be freely given, so that the shoots may become well hardened by November. Any necessary pruning is done in late spring after flowering, by cutting away some of the old wood. Providing the roots are in well-prepared soil, plenty of young growths will

follow to yield blossoms for the following year. Those who contemplate planting climbing roses under glass should procure half-standard trees; especially is this advisable with *Maréchal Niel*. To readers who possess a small greenhouse, the dwarf-growing section of the Tea and Hybrid Tea races are the best to grow. They will make remarkable growth and are practically ever-blooming. Far too often we find roses such as *Climbing Niphetos* and *Climbing Devoniensis* quite embarrassing in their vigour, whereas the original dwarf form of *Niphetos* and others similar would cover spaces of ten to twelve feet in height and as much in width in a few years.

CHAPTER XXXI

ROSES IN COLD FRAMES

THE restricted size of many gardens often precludes the erection of a greenhouse, but it is rarely that room cannot be found for a small frame wherein one may grow some beautiful roses. Such a frame is of especial value to those who live in smoky districts and near large towns, for the flowers are finer than it is possible to obtain out of doors; by having a few plants in a cold frame, it is possible to protect them from the effects of smoke and other impurities in the atmosphere. Cold frames also serve the purpose of providing roses earlier than they can be obtained out of doors, and the labour and skill demanded are slight, while they serve admirably for the accommodation of roses for forcing previous to their being taken into the heated house at intervals.

Cold frames may be of almost any size. The most convenient are those six feet long by four feet wide. The frame should be rather deeper than usual because the pots in which the roses are grown are those of seven or eight inches diameter and about eight inches deep. The depth at the back should be about two and a half feet and two feet in front. The frame may either be of wood or brick, or a makeshift frame can be made by digging out the soil half the necessary depth and build-

ing up walls of turf for the remainder. On the top of the turf walls a wooden frame is placed to enable the glass lights to be moved up and down. The frame should preferably slope to the south, and be so situated that it can obtain the morning sun also. A position in the open is best unless there is a low wall available that would shield it from the north.

Now how are we to obtain plants for these cold frames. To purchase extra strong plants in eight-inch pots means considerable expense for carriage alone. I suggest that the reader should obtain open-ground bushes early in October and pot them into eight-inch pots. This should be done by the second week in October. Ask the nurseryman to select bushy, one-year-old plants. When the roses arrive, trim back the roots to six or seven inches in length and cut back the shoots to twelve inches. Then place the roots in a trench and cover with soil until they can be potted. If the compost prepared a week or two previously so much the better. It should consist of fibrous loam two parts, well-rotted manure one part, and about one pint of bonemeal to a bushel of compost. Mix well together, and keep in an airy but rain-proof shed. If possible, select new pots otherwise see that they are well washed before use. Put one large crock at the base and smaller ones over it to a depth of about an inch, covering these with lumbric from the compost. Take a plant, hold it in the centre of the pot, and half fill the space with compost. Make this very firm with a piece of broom-handle. Then fill up with soil to within an inch of the rim, and again make

firm. If possible, the plant should be so potted that the junction of stock and scion (the point at which the bud was inserted) is one inch below the surface. This, however, is not always practicable, owing to the long roots; but it does not matter if the latter are somewhat curled round in order to achieve this object. When potted, plunge the pots over their rims in a bed of ashes in the frame or in the garden. They should be placed in the frame by November. Let them have all the air possible and be exposed to the rains; water at least once if the weather is dry after potting. In February prune back the growths to within about five inches of the base.

A selection should be made chiefly from the hardy Hybrid Teas, but some of the best Hybrid Perpetuals are indispensable, such as Mrs. John Laing, Frau Karl Druschki, Captain Hayward, and Ulrich Brunner. Similar plants may be planted out in the cold frame, providing the soil is good. This saves the trouble of potting.

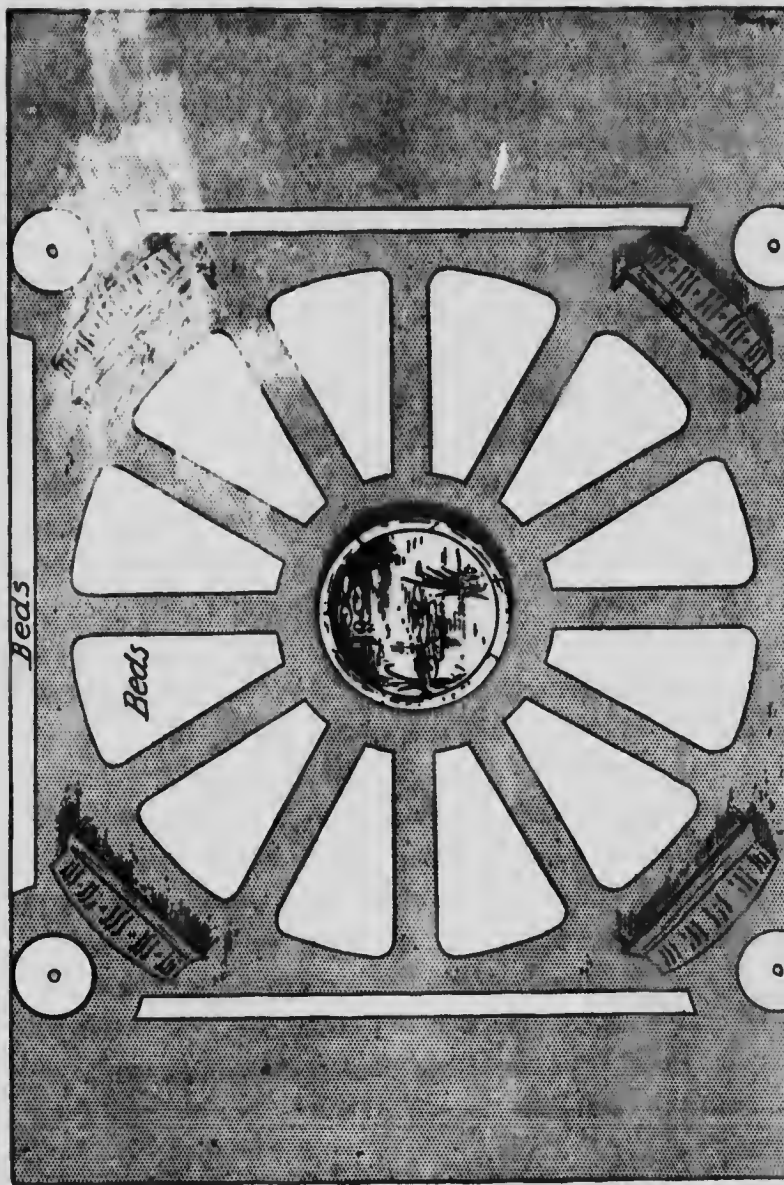
After the plants are pruned the lights should be kept on the frame, but a little air ought to be given night and day unless the weather is frosty. In severe weather cover the frame with mats or straw. As new growths appear, be careful that they do not get frozen. If air be given it is advisable to close the frame by three o'clock in the afternoon. It is preferable to have the pots plunged to their rims in the frame, evaporation is thus prevented, and consequently less water is needed. Syringe the plants on fine mornings, and be careful not to give too much water, especially at first. When the

plants are in full leaf it is necessary to look over them every morning and to water those that need it. When the flower buds show, tie the shoots to small sticks spread outwards so that every leaf may get light and air. In smoky districts sponge the leaves every other day. Weak liquid manure may be given when the buds appear, at first once a week, and twice weekly when the buds are as large as marbles. When the colour of the flowers shows the glass light may be removed and canvas substituted, or the plants may be taken to a room or cool conservatory. After the flowers are over the plants should have all the fresh air possible; in fact, they may be placed outdoors, the pots plunged in ashes or soil.

In July or August repotting may be necessary, but few will need repotting the first year. When the pots are full of roots and the latter show through the hole in the pot, then it is as well to shift them into rather larger pots. This is best done in the summer, so that the soil may be full of roots before winter. After turning the plants out of the pots remove the crocks, then lay them on the bench and gently prod the ball of soil with a pointed stick in order to remove some of the old soil without damaging the tiny roots. Having reduced it fully to half its size, it may be repotted as previously described. Soil used for potting should be in such a condition that on taking up a handful it will adhere together without crumbling or being "pasty." After repotting, place the plants out of doors and keep the soil moderately moist.

The same method of fumigating and exterminating mildew as advised for plants in the greenhouse may be adopted in the cold frame ; before fumigating, the cubic measurement should be carefully taken.

Skeleton houses deserve mention here, as they are excellent for providing roses earlier than from outdoors. Many of the blooms seen at the Temple show and in florists' shops in May and June are grown with the help of such houses. Strong wood three inches square is used for the uprights, and the sides may be of wood or even of stout canvas. Ordinary frame lights are used for the roof. These, of course, are made secure against gales, and are also movable for ventilation. No artificial heat is necessary, although one row of four-inch pipes would be an advantage. The roses are pruned in January or February, and are in bloom in May, some even in April. By pruning hard, fine long-stemmed blooms are obtained. If the roses are planted out there is less trouble in watering, and they have also a better chance of developing into big plants. After the blooms are over the lights may be removed and replaced in autumn to protect the flower buds which will open even until Christmas. The advantage of such a house lies in the protection it affords from spring frosts and the ease with which early blooms are obtained. Needless to say, it should be erected in full sunshine, and the soil must be suitable.



PART V

Round the Year in the Rose Garden

CHAPTER XXXII

JANUARY

PLANTING may still be carried out in January if the weather is mild, and even if the land is not fit to plant, it is best to lose no time in procuring the necessary plants. Just bury the roots in soil until the land is in a nice, friable state for planting. Old roses and Teas and Hybrid Teas planted in October and November should be protected by fine soil drawn close round the base of the plants, if this has not already been done. Manure may still be applied to the beds of established roses, but it is advisable to fork it lightly beneath the surface soil at once. Vacant land may be trenched now, ready for planting in March, or if not trenched, then dug deeply and left as rough as possible. The surface soil among all newly planted roses should be left rough by forking up the bed immediately after planting. If frost threatens, some bracken fern should be thrust among the branches of Teas and Hybrid Tea roses, but it ought to be removed during mild intervals.

Sometimes roses planted in autumn are so loosened

by the wind that holes are formed near the base of the plants in which pools of water collect. The holes should be filled up at once with firm soil. The growths of newly planted bush roses may be shortened to two feet; this will prevent their being blown about.

When roses are planted near hedges the roots from the hedge plants are likely to invade the rose beds. Trenches, three feet wide and two to three feet deep, should be opened near the hedge, all roots found being cut off. This will have to be repeated annually, but it is better than allowing the roses to be spoilt.

If roses are grown extensively under glass, turf may now be carted and stacked ready for another year. We prefer to arrange a layer of soil and a layer of cow manure alternately until the stack is complete. Roses intended to be grown in an unheated greenhouse should now be pruned. Grafting under glass should be proceeded with now, although the amateur would be well advised not to waste time upon it. It is much better for him to bud pot-grown briars in June and July.

FEBRUARY

If the soil has been forked up the frost will do it much good. Planting may still be carried on in mild weather, providing the soil is not too wet. Rather than plant when the ground is wet and sticky, the reader should defer the work. Procure the plants before all the best are gone, and on their arrival put the roots in a trench and cover with soil, making the latter firm. On heavy land it is advisable to dig and plant at the same time;

ground that is to be trenched should also be planted at once. I do not advocate trenching land ahead of the planting unless it can be exposed throughout the summer. This is by far the best practice.

Supposing one possesses a plot of land and wishes to convert part of it into a rose garden. Start now, removing six inches of the turf, and stack this for future potting needs. Then mark out a yard in width. Dig out the first "spit," which is really the top soil to the depth of the spade. Wheel this away to the end of the piece to be trenched. Shovel out the loose soil and wheel this away. With a strong digging fork break up the next layer of soil, and upon this spread about four inches thick of well-rotted manure. Also scatter on some basic slag, about six ounces to the square yard. Mark out the next yard and dig the top spit and all loose soil into the open trench, thus filling it. If the turf is not wanted it may be placed grass downwards on the lower spit of soil.

Established roses may be manured now, although this is best done in November. If farmyard manure is given, let it be put on the beds thickly and dug under at once. If there seems scarcely enough soil on the beds owing to the removal of weeds, etc., the manure may be spread and covered with soil. This is an excellent method of feeding roses, especially old plants. Another good plan is to scoop out the soil around each plant and give each a bucketful of fresh cow manure. Tonks' rose manure should be applied this month. This is one of the best of manures to give, and it can be readily

prepared. I would suggest an arrangement between amateurs for the purchase of the ingredients, which are far cheaper in bulk.

All stocks budded last summer should now be cut back. The dwarf stocks are cut to within an inch of the inserted buds ; standard stocks to within three or four inches. Bamboo canes are placed against the dwarf stocks to mark their location, and the soil should be lightly dug over. The digging is done now to facilitate hoeing later on. If the soil is very weedy, rather deeper digging is necessary. On heavy soil a flat-pronged fork is the best tool for the work. Standard briers budded last summer should have a stave, i.e. a split bamboo cane, about two feet long, tied to the upper part of the brier stem. Support is then at hand for the little shoot when it begins to grow, otherwise a gale might blow it out.

Stocks may be planted now ; that is to say, dwarf stocks. Standard briers should have been planted in November, but if this was not done they may be put in at once. Dwarf stocks such as the seedling or cutting briers, Manetti and Polyantha, are planted in rows two to three feet apart, the plants being about ten inches apart in the row. Plant in well-dug soil, or the soil may be dug and planted at the same time. If the soil was dug in advance it is not wise to plant until the weather is dry. We usually try to hold a piece of land in reserve for digging in bad weather ; then by planting at the same time, one does not need to tread on the newly dug soil.

Old-established roses that have not done well lately may still be transplanted, although this work is best carried out in November. We have moved quite big plants into new soil, and after a year they have flourished wonderfully. At first they seem to make no progress, but if the work is carefully done they will eventually justify their transplantation. Old, worn-out plants are best consigned to the fire. Standard roses should have new stakes if necessary, for March is generally a very windy month.

Hedges of roses may now receive such pruning as is necessary; this takes merely the form of thinning out old stems. If the hedge is growing too tall, bend over and tie down the shoots rather than cut them away.

Cuttings inserted in September and October may have been raised out of the ground a little owing to frost. Choose a dry day and push down the cuttings, then hoe between the rows.

Under glass, roses that have started growth need watching for green fly and mildew. For the former Auto Shreds is one of the simplest and most effective destroyers. A "dusting" with green sulphur will check mildew. Put some of the sulphur in a muslin cloth bag, and gently shake it over the mildewed plant. Keep the house rather dry for a time. It is best to select a fine sunny day for this work. If there is only one rose house, it is advisable to have a cold frame where pot roses can be protected from frost. A few plants may then be put into the forcing house at weekly

intervals, thus providing for a succession of bloom. Plants potted up in October from the open ground, and placed in these cold pits, may be introduced to the greenhouse now, and will give some nice flowers later.

Be careful in ventilating the house now. It is best to give a very little air through the top ventilators each day for a few hours; then the foliage is not so soft, and consequently less liable to mildew. If the weather happens to be frosty or snow prevents work out of doors, an opportunity is afforded one to look over the show boxes and paint them if necessary. Labels should also be written and stakes prepared.

MARCH

If, owing to unsuitable weather, work advised for last month could not then be carried out, no time should be lost now in bringing it to completion. This is a good month for digging over the surface soil and for preparing beds in readiness for planting in late spring, especially in northern districts. It was formerly thought that when March had arrived it was much too late to plant roses, but this fallacy is now exploded. Providing the soil is in good, friable condition and dormant plants are secured, the planting of roses now and throughout April should be a success. It is well to bury the plants in soil for two or three days after their arrival, and when planting to cut down all shoots to three or four inches of the base. The planting of stocks may still be proceeded with. If straw or fern litter has been placed among the roses for protection in winter, it may now

be removed if the weather permits, and the heap of soil round the base of the plants should be levelled.

This is the month for pruning all roses excepting the true Teas, which are best pruned in April. The illustrated chapter on the subject will furnish the reader with detailed information, so that we need not enlarge upon the matter here. If the plants were looked over in October, and superfluous shoots then removed, the spring pruning will be greatly facilitated. A sharp look out must be made for shoots from the stock. These are known as suckers, and they often escape the vigilance of the grower, to the great detriment of the plants. Underground suckers from standards are best removed with an iron spud, thrust beneath the soil as near the stem as is possible without damaging the roots.

Roses on sheltered walls will perhaps be showing buds. If such could have a glass coping over them the buds would develop. The writer has seen beautiful buds gathered from sunny walls during March and April where the plants have had the advantage of a glass shelter just placed in front of the wall. The reason we see so many crippled blooms of the old rose *Gloire de Dijon* is that they are injured by spring frosts, and this might be prevented by a simple glass shelter. Many of the lovely Tea roses, such as *Safrano*, *Souvenir d'un Ami*, etc., would yield quantities of early buds if grown in the manner stated.

As soon as pruning is finished, it is a good plan to spray the plants with Bordeaux mixture, especially if there has been trouble with rose rust or black spot.

All rose prunings should be burnt, and if rose rust has been very severe the surface soil to a depth of one inch or so should be removed and burnt, the ashes afterwards being spread on the soil. This would destroy a large number of the fungus spores in the soil.

Seedling Brier stocks should be potted up into five-inch pots now. They are extremely useful to bud new roses upon in June and July. If the reader wishes to propagate his own pot roses, this can be done by budding in July upon the stocks potted up now.

Under glass, roses are advancing rapidly owing to increased sunlight, and they need some help in the way of liquid manure or a mulch. The growths of pot roses should be tied out to small sticks in order to form shapely plants and to support the coming blossom. Climbing roses on the roof or walls should also be spread out, those on walls being trained in the shape of a fan.

Cuttings may now be put in. Select the firm growths from the pot-grown roses: those that have just flowered are best. Cuttings having two buds are preferable; they are cut through with a sharp knife just beneath the lower bud. A box with glass cover fixed over the hot-water pipes makes an excellent propagating frame. Let there be five inches of sharp sand put in and the cuttings inserted therein. The sand must be made solid first and well watered. Never allow the sand to get dry. In about six weeks the cuttings will have roots three quarters of an inch long and they are potted into two and a half inch pots of sifted sandy soil, and grown on in the same structure.

Rambler roses in large pots, after starting slowly, may now be placed in a higher temperature, but they must not be forced too quickly. They are much finer if allowed to progress steadily. They are very thirsty plants, and often need watering twice or three times a day. Now that the National Rose Society has established a spring rose show, rose growing in pots will receive increased attention.

Rose seed sown in December is now showing above the soil. When the little seedlings have formed one true leaf they ought to be pricked off singly in two-inch pots. Care must be taken not to break the point of the rather long root. If the seedlings are from hybridised seed they will be extremely interesting.

APRIL

With the spring showers and increasing sunshine growth is very rapid. Superfluous shoots in the centre of bush roses should be removed, and frequent search made for grubs. Especially ought the latter to be looked for on the shoots of maiden plants, otherwise the prospect of bloom may be destroyed.

The Dutch, or push, hoe should be used constantly now; weeds cut off at this time of year are done away with before they have the chance of producing seed. Do not be afraid to hoe deeply. Merely scratching the surface will not do. The rose beds must have a good tilth, and this cannot be obtained if hoeing is neglected now.

Owing to weather conditions, possibly northern

readers will not be able to prune their Tea roses before the middle of April, and this is quite early enough. Pruning should not be too severe unless the roses are grown for exhibition. It is wise to err on the side of leniency in pruning Teas. Some of the finest Tea roses I have seen were from unpruned bushes that were fed liberally with Clay's Fertilizer. I do not commend this practice to all, but there may be special circumstances where it could be adopted.

Suckers are now troublesome, especially upon standard Briars or standard roses, and they must be suppressed. Brier stocks from hedgerows are pushing into growth, but leave them alone this month.

Manures in the form of artificials may be given now, and for detailed advice the reader may be referred to the notes on manuring and manures in a previous chapter. Do not be persuaded that to manure a weakly plant is the correct thing to make it stronger. Healthy, well-rooted plants can be manured freely with advantage, but small, weakly plants are often killed by strong manures.

Sometimes plants produce excessively strong shoots that seem as though they would never stop growing. It is best to pinch out the points of these now and throughout summer as they appear, because they rob other growths of too much nourishment.

Late-planted roses must be watered once or twice a week, and if not already pruned should be cut back hard at once. Stocks to bud this year may still be planted. Buds inserted last year, and now starting into

growth, should be given a stake and carefully tied. If bushy plants are desired, remove the point of the shoot when it is six inches high. Roses in pots need liquid manure now liberally, and the quantity may be increased as the flowering stage approaches, but the liquid must be clear and weak. If a rain-water tank is in the greenhouse it is a good plan to put a little cow manure in, so that at every watering weak liquid manure is given, but of course one could not syringe with this water.

Plants in pots that have gone out of bloom should be immersed in liquid manure for a short time, and the growths cut back a little to nice plump buds. Ramblers in pots that are passing out of bloom should be hardened off in a cold house; they may subsequently be planted out of doors to fill up gaps upon arches or pillars.

Cuttings from roses grown under glass may still be inserted in pots of sandy soil, and placed in a hotbed covered by a frame, where they will root very quickly.

MAY

It has been said that first prizes are often lost and won this month, the suggestion being that the attention to or neglect of cultural details now will have an important bearing on the results. During this month pests increase rapidly. The commonest are the green caterpillars and the aphid, or green fly. There are, of course, many others, which are described more fully in the chapter on insect enemies. The whole collection of roses should be frequently examined for caterpillars,

and as soon as leaves are found stuck together or rolled up give them a squeeze and so destroy the grub within. It is well either to remove the leaves or unroll them, otherwise one may squeeze the same leaves repeatedly. It often happens that a caterpillar appears in the afternoon on a shoot you were certain you examined in the morning; if the grubs are not diligently searched for many a promising bud will be sacrificed.

Aphides can be partially dislodged by a vigorous syringeing with plain water, but they increase so rapidly that if a few are left on the shoot the latter will soon be covered again. A solution of soft soap and quassia is an excellent remedy, and there are many good insecticides on the market.

If the shoots can be immersed in the insecticide, this is preferable to spraying, and for this purpose a basin of the liquid held beneath the shoot provides a simple and effectual means of immersion. Mildew is a fungoid disease that sadly mars the beauty of some roses. Steps should be taken to check its spread by timely dustings with green sulphur.

Tea roses for exhibition now require thinning, and one must harden one's heart to do this thoroughly. It is said that no man should hoe his own turnips. Certainly it requires some courage to rub off nice, fresh shoots in order that others may be strengthened, but it is necessary to concentrate the energies of the plant upon a few buds if show blooms are desired.

Growths that are too close together may be tied out to small sticks. The points of extra vigorous growths

must be pinched out, and the underground suckers from standard roses removed.

Disbudding is necessary towards the end of the month if show blooms are desired. As a rule, though not invariably, the central bud is retained. Really decorative roses, such as Ecarlate, etc., need no disbudding, for their beauty consists in their profusion.

In some seasons we have a very dry spell of weather in May and it becomes necessary to water the roses. This is rarely necessary on heavy land, but on light soil it is advisable. Water with plain water first, and then with weak liquid manure. Good soakings are better than driblets, and the soil ought to be hoed the next day to prevent its "caking." Waterings with liquid manure are very helpful to all kinds of roses, whether for garden decoration or for exhibition, but much depends on the season. In wet weather the plants may have light sprinklings of artificial manure, which is hoed into the soil. Light soils benefit by a mulching this month. Spent hops make an excellent mulch, and if a little sulphate of ammonia is scattered on at the same time, rain or watering with plain water will carry down nourishment to the roots. Roses on walls ought to be watered twice a week from now onwards, for they do not derive full benefit from rain.

Roses raised from cuttings under glass now require potting singly in small sixty (two and a half inch) pots, using a sandy compost. Keep the plants in the warm greenhouse. Roses under glass must be kept free from aphid and mildew by timely fumigating and vaporising.

Roses that have been forced may now be hardened off in a cold house or frame prior to being placed out of doors next month.

If it is intended to plant a greenhouse with roses next month for supplying cut bloom in winter, the soil should be trenched and the plants ordered from the grower. Those in five-inch pots are suitable. If planted in good soil and kept warm and moist they make most remarkable growth by the autumn. Rambler roses in pots fast coming into bloom should be removed to a cool house; the flowers will then be of better colour.

JUNE

Disbudding, especially on maiden plants, is still necessary to obtain show blooms. It is advisable to carry out the work as soon as the buds are visible. Side growths also should be removed; these, especially upon some kinds of Tea roses, rob the blooms of much nourishment. Watering is necessary in dry weather, but unless it can be done thoroughly it is best left alone. Hoe the beds frequently so that no hard surface forms. When applying liquid manure, do so by means of drills drawn a few inches away from the plants on both sides. House slops and drainings from manure heaps should be collected in a tank, and they give us valuable food for the roses just now. If any gaps exist in the rose beds they can be filled with pot-grown roses, but this plan is only recommended as a last resort, as such plants are often unsatisfactory. New beds might well be planted now with young grafted roses; they would yield a fine

crop of blossom in autumn. Novelties purchased now in pots, and planted out in good soil, give nice buds in August with which to bud dwarf stocks.

A very troublesome pest now is the cuckoo spit, and it seems hard to dislodge. Nicotine wash may be used, but hand-picking is best.

Caterpillars are now less active, but watch should be kept for the grub of one of the saw flies that eats its way down the central pith of standard Briers or the top of a nice promising growth. To prevent its ravages on the Briers, they should be painted with painter's knotting or liquid grafting wax.

Thrips are often troublesome in dry weather, especially on wall roses. They are usually found upon the under side of the foliage and, if not checked, soon destroy the tissues of the leaves. Spray with nicotine wash.

Orange rust or red rust on the stems of roses may be checked by painting with methylated spirit diluted with an equal part of water.

All maiden plants should be tied to sticks now as a protection against rough wind, otherwise a promising growth may be blown quite out of the stock. If the weather is dry the buds of Tea roses intended for show should be wrapped in tissue paper, leaving the top open, and shades should be in readiness to protect them in wet weather. Show boxes must be cleaned and prepared, and a supply of tubes and wires kept ready for the early shows.

Standard stocks should be "set out" during the latter part of May. The "setting out" consists in re-

moving all lateral growths save three; these should be near the top unless others beneath are stronger. The buds are now inserted in two of the three, leaving the uppermost to be budded should either or both the others fail. Of course, four shoots or more may be retained and four different sorts budded upon one standard, but, as a rule, three shoots are sufficient, and it is only advisable to bud one variety.

Roses potted up in October, and since kept plunged in soil, should now be given more room—about twelve inches apart each way. The plants are plunged in the soil to the rims of the pots, or, better still, ashes may be placed around the latter. Weeds are then less troublesome. Such plants may be allowed to flower, but really they were potted with a view to forcing them next winter. Tea roses that have been forced may now be repotted, if they need it; this can be determined by an examination of the roots. If these are abundant, and found making their way through the hole in the pot, repotting is needed. The best compost consists of turfy loam two parts, well-rotted manure one part, with a sprinkling of sand and bonemeal. Old plants in pots that are not worth repotting will make fine specimens if planted now. Soak the ball of earth previously, and see that the soil has been well prepared for them. Do not cut back, but just tie over the growths; this will induce shoots to start from the base.

Roses to be planted out under glass ought to have been obtained by now. Plant them about thirty inches apart each way. Young grafted pot plants are by far

the best to set out; they grow freely at once. A few sorts are widely grown for this purpose, such as Madame Abel Chatenay, Liberty, Richmond, Sunburst, Lady Hillingdon, etc., but, as a matter of fact, any good Tea or Hybrid Tea may be grown under glass. If the greenhouse has been erected over a good rose soil, plants of five to six feet in height will develop in a very few years, and will yield quantities of superb blooms. Climbing roses under glass should be relieved of much of the old wood, so that the development of fresh growth for next year's flowering may be encouraged. These roses should be treated much in the same way as a vine. Syringe them well and close the house early in the afternoon. Only on dull days will a little artificial heat be needed.

JULY

The first two weeks in this month witness the chief exhibitions of the year. It is not wise to make a selection of varieties for the garden from the blooms seen at the show—at any rate, from those in the classes for exhibition blooms. Woeful failures may be traced to selections so formed; many varieties, suitable only for the exhibitor, have been planted as garden roses. When England possesses, as she should do, a National Rose Garden, the selection of varieties will be much simplified.

Hoeing is apt to be sadly neglected this month, though it is more necessary than ever, for constantly stepping among the roses makes the ground very hard. This should be remedied as early as possible. Liquid manure may now be withheld, but continue to water

with plain water if the weather is dry. Notes should be made as to the behaviour of roses in different positions and on various stocks. These notes will be useful at planting time in autumn.

Budding standard Briers must be carried out this month. It is useless to attempt budding if the sap is not flowing freely.

Mildew often obtains a strong hold this month, indeed, roses seem more prone to it now than earlier. Spray with sulphide of potassium or shake green sulphur upon the mildewed parts.

Top dressings of rotted manure, with a little good artificial fertiliser, such as Clay's, are beneficial to the second crop of blossom. The material should be placed on the soil immediately around the plants to a diameter of about fifteen inches. Growths that have flowered may be cut back to a good bud, removing as few leaves as possible. All dead blooms and seed pods should be removed. The latter are of little use, as they rarely ripen, and they are a considerable strain upon the resources of the plant. This is the time for layering roses. One only needs to perform the work carefully, and as detailed in another chapter, to succeed with the majority of roses. As the early flowering Ramblers go out of bloom, it is well to cut out some of the old growths in order to give the young shoots a better chance. This should be done cautiously. The Multiflora roses, represented by Crimson Rambler, need more of the old wood removed annually than the Wichuraiana roses, represented by Dorothy Perkins. If this pruning is carried

out soon after blooming, the new shoots are helped considerably. Pot Pourri should be made this month. There are many good recipes of this delicious perfume, and it is well worth the trouble of making.

AUGUST

Budding ought now to be in full swing, and should be finished as early as possible. The work of thinning out old shoots from Rambler roses should be completed as soon as practicable, the young shoots being well spread out and attached to their supports.

Many amateurs are in doubt when gathering roses as to the length of stem that may be cut with each bloom. If several flowers are cut from the same plant, the stems ought not to be longer than six or eight inches; this generally means that the shoot is shortened by about half, and the best buds, those upon which we rely for autumn bloom, are usually found about half-way down the shoots. It is harmful to cut more than one long-stemmed flower from one plant, for the prospect of an autumn display is jeopardised. Hoeing and watering need attention frequently. The orange rust disease is often very troublesome this month; we have found that copious waterings keep it in check. When this disease appears on certain plants year after year, it is a sign that they need replanting, and a note should be made of this that it may be done in November.

Cuttings put in frames now will root very freely if the soil is gritty and the growths from which they are taken are firm. The best cuttings are made from those growths

that have just borne flowers. Cut them into lengths of about six inches, retaining the leaves on the upper part, but removing all the lower ones. The growth is cut just beneath a bud with a very sharp knife. The cuttings are inserted in a bed of sand about two inches deep, and the same distance apart each way. The choicer Teas and Hybrid Teas root well in frames placed in a sunny position. The glass should be shaded from bright sunshine by means of scrim or sheets of newspaper. The cuttings may remain in the frame until the following May, being then lifted each with a small ball of soil and planted on a well-dug border.

Continue to thin out Ramblers, removing all worn-out and weakly growths, and tie in the best of the shoots, spreading them as much as possible.

Budding should be completed this month, the Manetti stocks being budded last of all.

SEPTEMBER

This is usually a delightful month in the rose garden, the productions of modern raisers having made it possible for us to have almost as fine a display in September and October as in June and July. In some respects the autumn show in the garden is finer, for the showy, big-petalled, semi-double roses are then at their best owing to the cool nights and dews. One often hears such semi-double roses as Betty decried in July because they are so thin and wanting in substance, but the sight of them in their autumn beauty makes one wish to plant more.

The autumn shows, now so fashionable, indicate the varieties best suited to late flowering, but it is better, perhaps, to visit a rose nursery and judge for oneself; there one gains a knowledge of the growth and general character of the various sorts. Roses that in the garden may droop unpleasantly owing to their thin stalks may be made to look very charming when wired and arranged in bunches. I would caution the reader not to be misled by the pillars of cut roses seen at exhibitions in September. Some exhibitors even make arches of the Lyons Rose, as if that variety were suitable for this method of training.

Much of the work recommended for July and August may be done now, especially the hoeing. Buds should be untied, and failures made good by putting in fresh buds. Cuttings may now be inserted in the open garden. Most varieties will strike if firm growths are selected, preferably those that developed prior to mid-summer. Plant the cuttings in beds in the open garden, making them firm on a base of sand, and leaving only one-third above ground.

Land intended for rose planting in October and November should now be trenched if possible. If it has been used for growing vegetables for some time, and heavily manured, a good dressing of lime or powdered chalk ought to be given. The varieties it is intended to obtain should be decided upon, so that they may be ordered early next month.

Remove old growths from Hybrid Perpetual roses, retaining only four or six of the current year's shoots.

Roses intended for early forcing should be dried off for a week or two by placing the pots on their sides. The roses planted out under glass also should have no water for two or three weeks. Though the ground crack, no harm will be done. Repot those roses that require it, and top dress those not needing to be repotted. The shoots of roses on walls should be nailed in, and at the same time some of the oldest stems may be cut out if they are likely to interfere with the ripening of the fresh ones.

If roses in pots having small flower buds are placed in a slightly heated greenhouse, they will yield button-holes until Christmas. If flowers are wanted in late autumn and early winter, it is advisable to remove the buds during August. It should especially be done with the thinner roses of the type of Papa Gontier, Corallina, Warrior, Betty, etc.

OCTOBER

This is a busy month, for planting is usually begun. If new beds are to be formed, one can scarcely plant too early in the autumn. Any time after the fifteenth of this month is suitable. It is wise to dispatch one's order early to prevent disappointment, for some varieties are sold out quickly. Many failures have been traced to the purchase of inferior plants because they seem to be a little cheaper. The beginner should not try experiments with novelties. Let him plant the well-tried varieties first, and wait until the novelties have justified the many good things said of them. Innumerable

new varieties are introduced each year, so many, indeed, that amateurs may well be bewildered in making a selection. The pages of *The Gardener* may be studied with advantage.

Standard Briers from the hedgerows may now be collected and planted. All who intend to exhibit should plant a number of these. Briers about two feet high, for forming half-standards, are the most desirable.

Cuttings may still be planted. This is a suitable time to replant roses that appear somewhat worn out. Dig them up and place them in soil while the ground is trenched and manured. When replanting, give each bush a shovelful or two of compost consisting of equal parts of loam, well-rotted manure, and leaf-soil, and half a pint of bonemeal. Roses in pots should be placed under cover so that they may be safe from early frosts.

Roses to be forced into early bloom may now be purchased, but it is far better to pot up one's own plants and thus save considerable expense in carriage, besides probably obtaining superior plants. Procure nice bushy maiden plants, and pot them during the first two weeks of the month. The beautiful Polyantha roses, if potted now, make excellent plants for room or conservatory. They do not require large pots, those five inches wide being the best. Any extra long shoots on rose plants out of doors should be shortened by about one-third, to prevent damage by gales.

NOVEMBER

This is the busiest month of the year for the planter, and no time should be lost now in getting the plants in their places. Avoid planting in wet and "sticky" ground. It is better to wait until it has dried somewhat, although there are some seasons when it seems hopeless to wait; it is best to have a supply of dry compost at hand and work this well among the roots.

Standard Briers may still be planted. If they are set out on land trenched the previous year they succeed better. In trimming the roots, do not retain too much of the "knob." Plant them fairly deeply, say eight or ten inches. The rows should be three feet from each other, and the Briers twelve inches apart in the rows.

Manure should be applied now to the beds and borders; a dressing of basic slag (six ounces to the square yard), if applied now, will give excellent results the next summer. If the space between the plants allows of it, it is an excellent plan to open a trench down the centre of each row twelve to eighteen inches deep, and to fill this with farmyard manure. Tread it firmly and cover with soil. Whenever manure is given now, let it be forked beneath the soil. If left on the surface it keeps the roots cold and wet all the winter. The surface soil of rose beds should be dug up roughly during this month and left so throughout the winter. Tender roses should be protected by a mound of soil or burnt earth heaped up around the base of the plants. If the weather is very severe, bracken fern or evergreens should be

thrust among the shoots. All planting ought to be completed now if the weather keeps mild. Any soft shoots should be cut back to within six or eight inches of the base; this enables them to harden, and they are then less liable to be injured by frost.

The roses in pots intended for earliest flowering should now be pruned and placed in a cold frame. Rose seed should be sown in pots of sandy soil.

DECEMBER

A few roses in pots should now be brought into the greenhouse—those that were pruned last month. Another lot may be pruned and placed in a cold frame. The shoots of climbing roses under glass need to be well tied out, the oldest growths being cut out to make room for them if necessary, though really this should have been done earlier. The borders in which roses are planted out in the greenhouse should be top dressed with loam and bonemeal in equal parts, or pulverised sheep or poultry manure may be used instead of the latter. Rose seed may still be sown. Pot up seedling Briers; they will be useful for budding any choice seedling upon under glass in May.

Stocks grown in pots should now be placed in the greenhouse ready for grafting next month.

If the weather is frosty take the opportunity to wheel manure on land that has not yet been manured. Rose hedges and big bushes in the wild garden ought not to be overlooked in the matter of manuring. Gaps in such hedges may be filled up now, and new hedges planted if

the weather is mild. Wherever a plant of the free-growing, shrub-like roses can be accommodated, such roses are well worth planting. There are often vacant positions admirably suited to such giant roses as Conrad F. Meyer, Una, etc., but they need plenty of space, for they grow into bushes as big as a Lilac.

Labels of all sorts should be made secure, and if the weather prevents outdoor work, the time should be devoted to putting rose boxes in order and preparing shades. Such work, if done now, will be a great help when the time of shows arrives.

PART VI

Lists of Varieties for Various Purposes

Pillar Roses.—Practically all the Wichuraiana and Multiflora roses may be used for tall pillars, eight to ten feet high. Perpetual flowering roses suitable for pillars, five to six feet high, are Ard's Rambler, Climbing Richmond, Danae, Florence H. Veitch, Grüss an Teplitz, Gustave Régis, Hugh Dickson, J. B. Clark, Johanna Sebus, La France de '89, Lady Waterlow, Lina Schmidt Michel, Madame Isaac Pereire, Trier, W. A. Richardson, Zéphirine Drouhin.

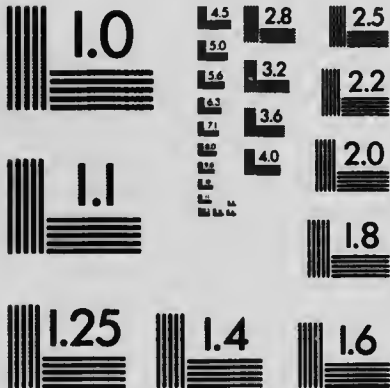
Roses for Weeping Standards.—The Wichuraiana varieties are most suitable; their slender growths droop readily. Such as Dorothy Perkins, Excelsa, Désire Bergera, Hiawatha, Joseph Liger, Lady Godiva, Lady Gay, Léontine Gervais, Shower of Gold, Sodenia, and White Dorothy Perkins are especially attractive. Some of the Multiflora roses and the old-fashioned climbers are also frequently used as weeping standards.

Roses for Half-Standards.—Arthur R. Goodwin, La France, Laurent Carle, Lady Greenall, Lady Roberts, Madame Antoine Mari, Madame Edouard Herriot, Madame Hoste, Madame Mélanie Soupert, Maman Cochet, Marie Van Houtte, Melody, Molly Sharman Crawford, Rayon d'Or, Souvenir de G. Prat, Walter Speed, and several of



MICROCOPY RESOLUTION TEST CHART

(ANSI and ISO TEST CHART No. 2)



APPLIED IMAGE Inc

1653 East Main Street
Rochester, New York 14609 USA
(716) 482 - 0300 - Phone
(716) 286 - 5989 - Fax

the charming dwarf Polyantha roses, such as Orléans, Jessie, and others.

Roses for Standards.—Caroline Testout, Climbing Caroline Testout, Dean Hole, Fisher Holmes, Frau Karl Druschki, General McArthur, Grüss an Teplitz, Gustav Grünerwald, Hugh Dickson, Joseph Hill, La France, Lady Ashtown, La Tosca, Lyons Rose, Madame Isaac Pereire, Mrs. J. Laing, Prince de Bulgarie, Madame Abel Chatenay, W. A. Richardson.

Roses with Long Stems.—Amateur Teyssier, Avoca, Frau Karl Druschki, Hugh Dickson, Jonkheer J. L. Mock, Joseph Hill, La Tosca, Lady Ashtown, Lady Pirrie, Laurent Carle, Madame Abel Chatenay, Madame Mélanie Soupert, Madame Segond Weber, Margaret, Mrs. A. Munt, Mrs. G. Shawyer, Mrs. John Laing, Mrs. T. Roosevelt, Pharisaer, Prince de Bulgarie, Sunburst.

Roses liable to mildew.—Abel Carrière, Dorothy Perkins, Fisher Holmes, Flower of Fairfield, Harry Kirk, Her Majesty, Irish Elegance, Killarney, Leuchtfeuer, Madame Abel Chatenay, Madame Moriau, Madame G. Luizet, Margaret Dickson, Mrs. R. G. Sharman Crawford, Mrs. George Shawyer, Prince Camille de Rohan, Reine Marie Henriette, Viscountess Folkestone, White Killarney.

Roses with Pointed Blooms of good form.—Avoca, Bessie Brown, Catherine Mermet, Countess of Derby, Dean Hole, Duchess of Portland, Frau Karl Druschki, Horace Vernet, Jonkheer J. L. Mock, Joseph Hill, Joseph Lowe, Lady Ashtown, Margaret, Madame Hoste, Medea, Mrs. John Laing, Mrs. G. Shawyer, Mrs. Myles Kennedy, Mrs. G. W. Kershaw, Mrs. H. Stevens, Pharisaer, Souvenir de

Gustave Prat, Sunburst, Victor Hugo, White Maman Cochet.

Some Fragrant Roses.—Abel Carrière, Alfred Colomb, A. K. Williams, Augustine Guinoisseau, Cabbage, Captain Hayward, C. Lefebvre, Chateau de Clos Vougeot, Conrad F. Meyer, Dr. O'Donel Browne, Duchess of Wellington, Duke of Edinburgh, Elizabeth Barnes, Fisher Holmes, General McArthur, Gloire de Dijon, Grüss an Teplitz, Hugh Dickson, La France, Lady Alice Stanley, Louis Van Houtte, Madame Bérard, Madame Isaac Pereire, Mrs. David Jardine, Mrs. John Laing, Noella Nabonnand, Rose à parfum de l'Hay, Victor Hugo, Viscountess Folkestone, Zéphirine Drouhin.

Roses for Walls.—FACING NORTH : Bennett's Seedling, Edmond Proust, Elisa Robichon, Félicité Perpétue, Flora, François Crousse, Gerbe Rose, Joseph Liger, Mrs. A. Waterer, Newport Fairy, Nova Zembla, René André, Ruby Queen. FACING SOUTH : Climbing K. A. Victoria, Climbing Liberty, Climbing Mrs. Grant, Climbing Papa Gontier, Duchesse d'Auerstadt, Dr. Rouges, Lamarque, Madame Moreau, Noella Nabonnand, Rêve d'Or, Solfaterre, Yellow Banksian. FACING EAST : Ard's Rover, Aimée Vibert à fleurs jaunes, Bouquet d'Or, Climbing Caroline Testout, Conrad F. Meyer, Florence H. Veitch, Gloire de Dijon, Hugh Dickson, Madame Alfred Carrière, Mrs. Stewart Clark, Tausendschön, Zéphirine Drouhin. FACING WEST : Aimée Vibert, Billiard et Barré, Climbing Cramoisie Supérieure, Climbing Lady Ashtown, Climbing Richmond, Madame Bérard, Madame Alfred Carrière, Madame Hector Leuilliot, Papillon, Reine Olga de

Wurtemberg, Souvenir de Madame J. Métal, Wm. Allen Richardson, Zéphirine Drouhin.

Roses for Exhibition.—*A. K. Williams, *Bessie Brown, Caroline Testout, Dean Hole, *Florence Pemberton, Frau Karl Druschki, *G. C. Waud, George Dickson, Gloire de Chedane Guinoisseau, Hugh Dickson, *Horace Vernet, J. B. Clark, Lady Ashtown, Leslie Holland, *Lyons Rose, *Madame Mélanie Soupert, Maman Cochet, *Margaret, Marquise Litta, Mrs. Edward Mawley, *Mildred Grant, *Mrs. John Laing, Mrs. T. Roosevelt, Mrs. W. J. Grant, Ulrich Brunner, White Maman Cochet, William Shean. A few of those marked * should be grown as "maiden" plants.

Roses for Growing under Glass.—Anna Olivier, Arthur R. Goodwin, Mrs. W. J. Grant, Bridesmaid, Frau Karl Druschki, Joseph Hill, G. C. Waud, Joseph Lowe, Lady Ashtown, Lady Hillingdon, Madame Abel Chatenay, Madar e Hoste, Ophelia, Pharisaer, Prince de Bulgarie, Richmond, Souvenir de Gustave Prat, Sunburst, Ulrich Brunner. *Climbers.*—Bouquet d'Or, the climbing forms of Mrs. W. J. Grant, Caroline Testout, K. A. Victoria, Lady Ashtown and Liberty, Florence H. Veitch, Madame Pérard, Maréchal Niel, Monsieur Désir, Niphetos, W. A. Richardson.

Roses for Arches and Arbours.—Many of the Wichuraiana and Multiflora roses, together with some of the Noisettes, such as Alister Stella Gray, Rêve d'Or, W. A. Richardson, are suitable for arches and arbours.

ONE HUNDRED POPULAR ROSES

Variety	When to Prune	When in Bloom	Form or Position In which to Grow	Colour	Class
1. ANTOINE RIVOIRE	Early April	June-October	Bush or standard	Flesh-white, tinted cream	Hybrid Tea
2. CAPTAIN HAYWARD	March	July and again in autumn	Bush or standard	Bright carmine	Hybrid Perpetual
3. CAROLINE TESTOUT	March	June-October	Bush or standard, or on low wall	Silvery salmon-pink	Hybrid Tea
4. CHARLES LEFEBVRE	March	July and a few blooms in autumn	Bush or standard	Velvety crimson	Hybrid Perpetual
5. CONRAD FERDINAND MEYER	March	End of May, June, and a few in autumn	Big bush, pillar, standard, or wall, or hedge	Silvery rose-pink	Hybrid Rugosa
6. CRIMSON RAMBLER, Perpetual flowering variety (also called FLOWER OF FAIRFIELD)	March	July-October	Pillar, arch, standard	Bright crimson	Multiflora
7. FRAU KARL DRUSCHKI	March	June-October	Bush, pillar, standard or wall	Pure white	Hybrid Perpetual
8. GEN. MCARTHUR	Early April	June-October	Bush and standard	Scarlet red	Hybrid Tea
9. GLOIRE DE DIJON	March	May-October	Pillar, arch, fence, wall, standard	Buff, orange centre	Tea scented
10. GUSTAV GRÜNER-WALD	Early April	June-October	Bush, standard	Bright carmine-pink	Hybrid Tea
11. HUGH DICKSON	March	July-October	Bush, pillar, fence, low wall, standard	Brilliant scarlet-crimson	Hybrid Perpetual

ONE HUNDRED POPULAR ROSES (continued)

Variety	When to Prune	When in Bloom	Form or Position in which to Grow	Colour	Class
12. LA FRANCE	March	June-October	Bush, standard, fence, low wall	Pale peach, shaded rose	Hybrid Tea
13. LA TOSCA	Early April	June-October	Bush, standard, fence, low wall	Blush-pink	Hybrid Tea
14. LADY ROBERTS	Early April	June-October	Bush, standard	Apricot	Tea scented
15. MME. ABEL CHATENAY	Early April	June-October	Bush, standard, low wall	Rosy salmon-carmine	Hybrid Tea
16. MME. ANTOINE MARI	Early April	June-October	Bush, standard	Rose, shaded white	Tea scented
17. MME. BERARD	Early April	June-October	Big bush, high wall, arch, standard	Salmon, shaded rosy yellow	Tea scented
18. MME. HOSTE	Early April	June-October	Bush, standard	Cream - yellow	Tea scented
19. MME. ISAAC PERREIRE	March	June-October	Big bush, standard, arch, pillar, fence, low wall	Bright carmine-rose	Hybrid Bourbon
20. MME. RAVARY	Early April	June-October	Bush, standard	Orange - yellow	Hybrid Tea
21. MINNEHAHA	March	About July 20	Arch, pillar, tall hedge	Soft satin-pink, an improved Dorothy Perkins	Wichuriana
22. MRS. JOHN LANG	March	July-October	Bush, standard	Soft pink	Hybrid
23. MRS. W. H. CUT-BUSH	March	July-October	Bush	Rose - pink, blooms in big clusters	petal Dwarf Poly-antha

22. MRS. JOHN LANG	March	July-October	Bush, standard	Soft pink, Rose - pink, blooms in big clusters	Hybrid petal	Per-
23. MRS. W. H. CUT- BUSH	March	July-October	Bush		Dwarf Poly-	antha

24. PHARSAER	Early April	June-October	Bush, standard	Rosy white	Hybrid Tea	
25. PRINCE C. DE ROHAN	March	July	Bush, standard, low pillar	Blackish maroon	Hybrid Pet-	
26. PRINCE DE BUL- GARIE	Early April	June-October	Bush, standard	Apricot and white	Hybrid Tea	
27. ULRICH BRUNNER	March	July-October	Big bush, stand- ard, low pillar, or fence, wall, or hedge	Light red	Hybrid Pet-	
28. VISCOUNTESS FOLKE- STONE	Early April	July-October	Bush, standard	Creamy pink and salmon	Hybrid Tea	
29. WILLIAM ALLEN RICHARDSON	Early April	June-October	South or west wall, or fence, pillar, big bush, stand- ard, arch	Deep orange yellow	Noisette	
30. ZÉPHIRINE DKOUHIN	March	July-October	Big bush, stand- ard, fence, wall, pillar, hedge	Bright car- mine-pink	Hybrid Bour- bon	
31. ADMIRAL DEWEY	March	June-October	Bush or standard	Light blush	Hybrid Tea	
32. ALBERIC BARBIER	March	Early June and moderately in autumn	Arch, pergola, pil- lar, trellis, over old tree stump, weeping stand- ard	Pale yellow buds open- ing white	Wichuraiana	
33. ALISTER STELLA GRAY	April	June-October	Pillar, arch, south or west wall, free bush, standard	Large trusses of small yel- low flowers	Noisette	
34. AMATEUR TEYSSIER	April	June-October	Bush, standard	White, can- ary-yellow centre	Hybrid Tea	

ONE HUNDRED POPULAR ROSES (continued)

Variety	When to Prune	When in Bloom	Form or Position in which to Grow	Colour	Class
35. ANNA OLIVIER	April	June-October	Bush or standard	Rosy flesh, lovely long buds of a darker shade	Tea scented
36. ASCIENBRODEL	April	June-October	Bush	Peach, with orange centre, flowers produced in large clusters	Polyantha (miniature flowered)
37. AUGUSTINE GUI-NOISSEAU	March	June-October	Bush, standard	Almost white	Hybrid Tea
38. AUREORE	April	June-October	Bush	Orange - yellow	Chinese, or monthly
39. BARDOU JOB	March	June-October	Pillar, standard	Blackish crimson, almost single, but flowers very large	Hybrid Tea
40. BETTY	April	June-October	Bush, standard	Coppery rose, shaded yellow	Hybrid Tea

41. BLUSH RAMBLER	March	Early in July	Pillar, arch, free bush, big standard	Rich blush, paler centre, large trusses of almost single flowers lasting a long time, a good companion to Crimson Rambler	Multiflora
42. BOUQUET D'OR	April	June-October	Pillar, free bush, east, west, or south wall, standard	Pale yellow, centre copery yellow	Tea scented
43. CECILE BRUNNE	"	June-October	Bush	Blush shaded pink, one of the smallest yet most perfectly formed Roses, splendid for sprays	Polyantha
44. CLIMBING CAROLINE TRESTOUT	March	June-October	Pillar, arch, wall, standard	Pale rose-pink, one of best pinkclimbers of the large-flow-ered section	Hybrid Tea

ONE HUNDRED POPULAR ROSES (continued)

Variety	When to Prune	When in Bloom	Form or Position in which to Grow	Colour	Class
45. COMMANDANT FÉLIX FAURE	March	July-October	Bush, standard	Vermilion-crimson	Hybrid Per
46. COMMON CHINA	March	May-December	Bush, pillar, wall, standard	Pink	China
47. COMMON MOSS	March	June	Bush	Pink, the best of this lovely class	Moss
48. COMTESSE DU CAYLA	April	June-October	Bush, standard	Coppery yellow and carmine	China
49. COUNTESS OF DERBY	April	June-October	Bush	Rosy flesh and cream	Hybrid Tea
50. DEAN HOLE	April	June-October	Bush, standard	Salmon and carmine	Hybrid Tea
51. DR. O'DONEL BROWNE	March	June-November	Bush, pillar, low wall, standard	Carmine-rose	Hybrid Tea
52. DR. ROUGES	April	June-October	Upon lofty south or west wall, pergola, arch	Red with yellowish centre	Tea scented
53. DOROTHEY PERKINS	March	Mid-July and few blooms throughout autumn	Pillar, arch, pergola, trellis, hedge; to run on banks, weeping standard, walls, pots	Rich pink	Wichuraiana
54. DUKE OF BURGH	March	July and moderately in autumn	Pillar, bush, pegged down, standard	Rich scarlet-crimson	Hybrid Perpetual

55. DUKE OF WELLINGTON	March	July and again in autumn slightly	Bush, standard	Velvety red	Hybrid petal	Per-
56. EARL OF WARWICK	April	June-October	Bush, standard	Salmon-pink	Hybrid Tea	
57. EDU MEYER	April	June-October	Bush, standard	Coppery rose, shaded yellow	Hybrid Tea	
58. ELISA ROBICHON	March	About June 20	Pillar, arch, fence, bank, hedge, weeping standard	Apricot and buff	Wichuraiana	
59. FARBEN KONIGIN	March	June-October	Bush	Imperial pink	Hybrid Tea	
60. FISHER HOLMES	March	July-October	Bush	Deep crimson	Hybrid petal	Per-
61. FLORENCE PEMBERTON	April	June-October	Bush, standard	Creamy white	Hybrid Tea	
62. FRANÇOIS CROUSSE	March	June and moderately in autumn	South c: west wall, pillar, standard, arch	Fiery red	Hybrid Tea	
63. GARDENIA	1.	Early June	Arch, pergola, pillar, weeping standard, bank, wall	Canary yellow buds, opening to lemon white	Wichuraiana	
64. GLOIRE LYONNAISE	March	June and July	Tall bush, pillar, wall, standard	Creamy white	Hybrid Tea	
65. G. NABONNAND	April	June-November	Bush, standard	Pale rose, shaded yellow	Tea scented	
66. GRACE DARLING	March	June-October	Large bush, standard, low wall	Creamy white, heavily shaded peach and yellow	Hybrid Tea	

ONE HUNDRED POPULAR ROSES (continued)

Variety	When to Prune	When in Bloom	Form or Position in which to Grow	Colour	Class
67. GRACE MOLYNEUX	April	June-October	Bush, standard	Creamy apricot	Hybrid Tea
68. GRÜSS AN TEPLITZ	March	June-November	Big bush, pillar, bush pegged down, arch, standard, wall, hedge	Scarlet crimson	Hybrid Tea
69. GUSTAVE REGIS	April	June-October	Big bush, pillar, wall, standard	Canary-yellow, low buds	Hybrid Tea
70. IRISH ELEGANCE	April	June-October	Big bush, standard, low wall, low hedge	Single flowers, shades of apricot and yellow	Hybrid Tea
71. JOHANNA SEBUS	April	June-October	Pillar, free bush, standard, wall	Bright satiny rose	Hybrid Tea
72. JOSEPH HILL	April	June-October	Bush, standard	Salmon and orange	Hybrid Tea
73. J. L. ARNEY	April	June-October	Bush, standard	Pale pink	Hybrid Tea
74. NIGIN CAROLA	April	June-October	Bush	Salmon-rose	Hybrid Tea
75. ANNE PRINZESSIN CECILIE	April	June-October	Bush, standard	Silvery-pink	Hybrid Tea
76. LADY ASHTOWN	April	June-October	Bush, standard	Rose-pink	Hybrid Tea
77. LADY GODIVA	March	About July 20	Arch, pillar, weeping standard, banks, old trees	Pale salmon-pink, sport from Dorothy Perkins	Wichuraiana
78. LADY PENZANCE	March	Early June	Free bush, pillar	Soft copper	Hybrid Sweet Brier

79. LADY WATERLOW	April	June-October	Free bush, pillar, wall, standard	Bush shaded rose and yellow	Hybrid Tea
80. LYONS ROSE	March	June-October	Dwarf bush, against low wall, standard	Shrimp-pink and orange	Pernetiana
81. MADAME JEAN DUPUY	April	June-October	Bush, standard	Reddish yel- low tinted	Tea
82. MADAME JENNY GILLEMOT	April	June-October	Bush, standard	pink Canary- yellow	Hybrid Tea
83. MADAME JULES GROLEZ	April	June-October	Bush, standard	Rose-pink	Hybrid Tea
84. MADAME LEON PAIN	April	June-October	Bush, standard	Pale pink, shaded yel- low at base of petals	Hybrid Tea
85. MADAME VICTOR VERDIER	March	July-October	Bush, standard	Rich deep crimson	Hybrid Pet- petual Tea
86. MADAME WAGRAM	March	June-October	Free bush, pillar, hedge, wall, standard	Pale pink	Hybrid Pet- petual Tea
87. MARGARET DICKSON	March	July-October	Free bush, pillar, standard, hedge	White	Hybrid Pet- petual Tea
88. MARIE VAN HOUTTE	April	June-October	Bush, standard, wall	Pale yellow, edge of pet- als lined	Tea scented
89. MRS. R. G. SHARMAN CRAWFORD	March	July-October	Bush, standard	rose Silvery pink	Hybrid Pet- petual Hybrid Tea
90. MRS. THEO. DR. ROOSEVELT	March	June-October	Bush	Creamy white	Hybrid Tea

ONE HUNDRED POPULAR ROSES (continued)

Variety	When to Prune	When in Bloom	Form or Position in which to Grow	Colour	Class
91. NOVA ZEMBLA	March	End of May and moderately throughout autumn	Free bush, wall, fence, pillar, standard	White	Hybrid rugosa
92. PERLE D'OR	April	May-October	Bush, low hedge, edging to bed of standards, dwarf, standard	Apricot	Perpetual Polyantha
93. REINE OLGA DE WURTEMBERG	March	June and moderately throughout autumn	Pillar, arch, wall, free-headed standards	Cherry-red, semi-double flowers	Hybrid Tea
94. RICHMOND	April	June-October	Bush, standard, pot culture in heat-greenhouse	Scarlet crimson	Hybrid Tea
95. SOLEIL D'OR	March	July-October	Free bush, pillar, hedge, standard	Reddish gold	Pernetiana
96. TAUSENDSCHEÖN	March	About June 20	Pillar, arch, hedge, wall, or fence, standard	Soft, pink, large blossoms for its class	Multiflora
97. TEA RAMBLER	March	About June 15	Pillar, arch, trellis, hedge, large-headed standard	Pink, buds coppery	Multiflora Hybrid
98. VICTOR HUGO	March	July-October	Bush	Vivid crimson-red	Hybrid Perpetual
99. WHITE MAMAN COCHET	April	June-October	Bush, standard, low south wall	Creamy white	Tea scented
100. WILLIAM R. SMITH	April	June-October	Bush, standard, low south wall	Creamy white, suffused pink	Tea scented

INDEX

- ALPINE rose, the, 139
Aphides, 216
Apple rose, the, 147
April, work for, 247
Arches and pillars, roses for, 83, 265
Attar of roses, 143
Austrian Brier, the, 121, 145
Ayrshire rose, the, 115, 131
- BANKSIAN roses, the, 121, 140
Basic slag, 205
Bed, an ideal rose, 167
Bee, leaf cutter, 218
Beetles, 221
Beginning well, on, 1
Big rose bushes, 69
Black spot, 213
Bordeaux mixture, how to make, 212
Bourbon roses, 122, 140
Boursault roses, the, 117, 121
Boxes for exhibition, 156
Brier, hedge, 200; stocks, 200; the
Austrian, 121, 145; the Japanese,
148
Budding roses, 183; standard Briers,
256
Burnet or Scotch rose, 135
Bushes, big rose, 69
- CABBAGE roses, the, 119
Canker, 214
Caterpillars, leaf-rolling, 249
Chafers, 221
Chalk soil, 168
China or Monthly roses, the, 144;
pruning, 102
Christmas, roses at, 237
Clay soil, 167
Climbing roses in the greenhouse, 231;
old-fashioned, 115, pruning, 181;
Teas, 90, 97
Cross-fertilisation of roses, 196
Cuckoo spit, 253
Cuttings, 186, 246
- DAMASK rose, the, 119, 142
De la Grifferaie stock, 203
- Design in rose gardens, 162
Disbudding, 247, 251, 252
Diseases and insect pests, 210
Dog rose, the, 132
- EARWIGS, 222
Evergreen roses, the, 116
Exhibition boxes, 156
- FARMYARD manure, 204, 241
February, work for, 240
Feeding roses, 153, 225
Fences and walls, roses for, 77, 267
Frames, roses in cold, 233
- GALL flies, 220
Gallica roses, 120
Gardens, rose, 157
Grafting roses, 192
Gravel soil, 167
Greenfly, 216, 230, 249
Greenhouse, climbing roses in the, 231;
roses for the, 225; pruning, 227, 231,
235, 237
Green rose, the, 102
- HALF-STANDARDS, 60
Hardiness of Hybrid Teas, 35
Hedges of roses, 126; Moss roses, 105;
Penzance Briers, 108; pruning, 243
Hoing, value of, 255
Hybrid Chinese roses, the, 117, 118;
Perpetuals, 22; pruning, 25, 26;
Teas, 32; climbing, 36; pruning, 36
- INITIAL pruning, the, 179
Insect pests, 216
Insecticides, 216
- JANUARY, work for, 239
Japanese Briers, 71, 143
July, work for, 255
June, work for, 252
- LAYERING roses, 190; Moss roses, 101
Lime and sulphur, 211

Liquid manure, 205
Lyons rose, the, 112

MACARTNEY rose, the, 141
Maggots, receipt for killing, 128
Maiden plants, 154, 253
Maiden's blush roses, the, 120
Manetti stock, the, 202
Manure, farmyard, 204
Manures for roses, 204, 241
March, work for, 244
May, work for, 249
Mildew, 113, 211, 243, 256
Monthly or China roses, the, 100, 144
Moss rose, 103, 143; layering, 105;
pruning, 104
Moths, 220
Multiflora roses, the, 16
Musk rose, the, 146

NEW roses, 123; raising, 197
Noisette roses, the, 116, 147

OLD-FASHIONED climbing roses, 115
Old-world roses, 118
Orange rust, 246

PEGGING down, 25, 180
Penzance Briers, 107
Pernetiana roses, 110; pruning, 114
Perpetual Moss roses, 105
Persian Brier, 110; yellow rose, the,
121
Pillars and arches, roses for, 83, 265
Planting, 7, 88, 169, 240, 244; hedges,
127; standards, 55
Polyantha roses, the dwarf, 124; the
large-flowered, 124
Pompon Wichuraiana roses, the, 124
Potassium sulphide, 212
Pots, roses in, 227
Preparing for rose planting, 241
Protecting roses, 35, 89, 245
Provence roses, the, 119
Pruning, 172, 245, 248; after planting,
9; arch and pillar roses, 85; climb-
ing roses, 181; hedges, 128, 243;
Hybrid Perpetuals, 25, 26; Hybrid
Teas, 36; Moss roses, 104; multi-
flora roses, 18; Pernetiana roses, 114;
ramblers, 256; roses under glass,
231, 235, 247; standards, 56; Tea
roses, 89; the initial, 179; wall
roses, 81; Wichuraiana roses, 11

RAISING new roses, 197
Rambler as big bushes, 74; perpetual-
flowering, 123
Recipe for killing maggots, 128
Recipes for liquid manures, 208

Red spider, 230
Reddish-leaved rose, the, 148
Replanting roses, 171
Repotting roses, 231, 235, 236
Rosa agrestis, 131; alba, 120; Alberti,
139; alpina, 139; arvensis, 131;
Banksia, 140; blanda, 140; bour-
boniana, 140; bracteata, 141; cali-
fornica, 141; canina, 132; carolina,
141; cinnamomea, 141; damascena,
142; ferox, 143; fortuneana, 143;
gallica, 143; gigantea, 144; hugonis,
144; indica, 144; involuta, 133;
laevigata, 145; lutea, 145; mac-
rophylla, 146; micrantha, 134;
microphylla, 146; mollis, 134; mos-
chata, 146; Moyesii, 147; multiflora,
17, 147; Mundi, 119; muscosa, 143;
noisettiana, 147; pomifera, 147;
rubella, 134; rubiginosa, 135;
rubrifolia, 148; rugosa, 148;
setigera, 149; sericea, 148; Soulei,
149; spinosissima, 135; stylosa, 136;
tomentosa, 136; virginiana, 149;
webbiana, 149; Wichuraiana, 61,
150; xanthina, 150
Rose Abel Carrière, 28; Admiral Dewey,
39; American Pillar, 19; Alberic
Barbier, 13; A. K. Williams, 28;
Alexander Hill Gray, 91; Amadis,
117; Amateur Teyssier, 39; André
Gamon, 39; Anemone, 145; Anna
Chartron, 91; Anna Olivier, 91; Anne
of Geierstein, 108; Antoine Rivoire,
39; Ard's Pillar, 49; Ard's Rambler,
49; Arethusa, 101; Arthur R.
Goodwin, 111; Augustine Guinois-
seau, 39; Aurore, 101; Aviateur
Blierot, 13; Avoca, 39, 49; Bardou
Job, 49; Beauté de Lyon, 111;
Beauté Inconstante, 91; Belle
Lyonnaise, 97; Bennett's Seedling,
115; Bessie Brown, 39; Betty, 40;
Betty Berkeley, 92; Billiard et
Barré, 97; Blairii No. 2, 117, 119;
Blush Rambler, 19; Blush Boursault,
117; Bouquet d'Or, 97; British Queen,
40; bushes, big, 69; Captain Hayward,
28; Carine, 40; Caroline Testout, 40;
Catherine Mermet, 92; Catherine
Seyton, 108; Château de Clos
Vougeot, 40; Charles Lawson, 118;
Charles Lefebvre, 28; Chénédole, 119;
Cheshunt Hybrid, 34, 49; Chin Chin,
101; Cissie Easlea, 111; Climbing
Captain Christy, 49; Caroline Tes-
tout, 49; devoniensis, 97; Kaiserin
Augusta Victoria, 50; La France,
50; Lady Ashtown, 50; Liberty,
50; Papa Gontier, 98; Perle des

- Jardins, 98; Mrs. W. J. Grant, 50; Niphotos, 98; Clio, 28; Comtesse du Cayla, 101; Cloth of Gold, 117; Commandant Félix Faure, 28; Comtesse de Nadaillac, 92; Fæstetics Hamilton, 92; Constance, 112; Coquina, 13; Conrad F. Meyer, 70; Corallina, 92; Cramoisie Supérieure, 101; Crested Provence, 119; Crimson Rambler, 19; Crimson Damask, 119; Countess of Derby, 41; Countess of Shafteshury, 41; Coup d'Ébê, 119; Dawn, 50; de Meaux, 119; Dean Hole, 41; Debutante, 13; Désire Bergera, 13; Desprez à fleurs jaunes, 116; Deutschland, 112; Dorothy Perkins, 13; Ducher, 101; Duchess of Wellington, 41; Duchesse d'Auerstadt, 98; Duke of Edinburgh, 28; Dundee Rambler, 113; Dupuy Jamain, 29; Dr. Grill, 92; Dr. Rouges, 98; Earl of Warwick, 41; Ecarlate, 41; Edu Meyer, 41; Edward Mawley, 42; Electra, 19; Elisa Rohichon, 13; Elizabeth Barnes, 42; Entente Cordiale, 42; E. Veyrat Hermanos, 98; Ethel, 13; Euphrosyne, 19; Excelsa, 14; Farben Konigin, 42; Félicité Parmentier, 116, 120; Fisher Holmes, 29; Flora, 116; Flora McIvor, 108; Florence H. Veitch, 42; Flower of Fairfield, 19; François Crousse, 50; François Foucard, 14; Gardenia, 14; gardens, 157; design in, 162; General Jacqueminot, 29; General McArthur, 42; General Shahlikine, 92; George C. Waud, 42; Gloire de Chédane Guinoisseau, 29; Gloire de Dijon, 98; G. Nabonnand, 92; Goldfinch, 19; Gottfried Keller, 112; George Dickson, 42; Gracilis, 117; Grand Duc Adolphe de Luxembourg, 42; growing for exhibition, 151; Grüss an Aachen, 124; Grüss an Teplitz, 50, 72; Gustav Grünerwald, 43; Gustave Regis, 50; Harrisoni, 121, 136; Harry Kirk, 93; Hedges, 126; planting, 127; pruning, 128; Hélène 20; Hiawatha, 14; Hon. Edith Gifford, 93; Horace Vernet, 29; Hugh Dickson, 29, 73; Hugo Roller, 93; Inermis Morletti, 117; Isabella Gray, 117; J. B. Clark, 43, 74; James Coey, 43; Jean Note, 43; Jeanne Philippe, 93; Johanna Sehus, 43, 50, 74; Johannisfeuer, 112; Jonkheer J. L. Mock, 43; Joseph Billiard, 14; Joseph Hill, 43; Joseph Liger, 14; Julia Mannering, 108; Juliet, 112, Juno, 118; Kaiserin Augusta Victoria, 44; Killarney, 44; La Biche, 117; La France, 23, 44; La Tosca, 44; La Ville de Bruxelles, 120; Lady Alice Stanley, 44; Lady Ashtown, 44; Lady Battersea, 44; Lady Gay, 14; Lady Godiva, 14; Lady Greenall, 44; Lady Hillingdon, 93; Lady Penzance, 108; Lady Pirrie, 44; Lady Roberts, 93; Lady Waterlow, 50; Lamarque, 116; Laurent Carle, 44; Le Progrès, 45; Leda, 120; Léontine Gervais, 14; Leopoldine d'Orléans, 116; Les Rosatis, 112; Leslie Holland, 45; Leuchtfeur, 101; Leuchtstern, 20; Liberty, 45; Lieutenant Chauré, 45; Lina Schmidt Michel, 51; Longworth Rambler, 51; Louis Barbier, 112; Louis Van Houtte, 29; Catherine Breslau, 112; Lucy Bertram, 109; M. Désir, 51; M. Paul Lédé, 46; Madame Abel Chatenay, 45; Madame Antoine Mari, 93; Madame Bérard, 98; Madame Charles Lutaud, 45; Madame Chédane Guinoisseau, 94; Madame Constant Soupert, 94; Madame Cusin, 94; Madame Edmond Rostand, 45; Madame Edouard Herriot, 113; Madame Eugène Régal, 101; Madame Falcot, 94; Madame Hardy, 120; Madame Hector Leuilliot, 51; Madame Hoste, 94; Madame Jean Dupuy, 94; Madame Jules Graveureaux, 98; Madame Jules Grolez, 45; Madame Jules Siegfried, 99; Madame Legras, 120; Madame Léon Pain, 45; Madame Mélanie Soupert, 46; Madame Moreau, 99; Madame Plantier, 119; Madame Ravary, 46; Madame Ruau, 113; Madame Segond Weher, 46; Madame Victor Verdier, 30; Maman Cochet, 94; Maréchal Niel, 117, 232; Margaret Dickson, 30; Marie Van Houtte, 94; Marquise de Sinety, 46; Medea, 95; Meg Merrilees, 109; Melody, 46; Meta, 95; Mildred Grant, 46; Miniature Provence, 119; Minnehaha, 14; Minna, 109; Miss Alice de Rothschild, 95; Molly Sharman Crawford, 95; Morletti, 121; Mrs. A. R. Waddell, 46; Mrs. Alfred Tate, 46; Mrs. Alfred Westmacott, 95; Mrs. Amy Hammond, 46; Mrs. B. R. Cant, 95; Mrs. Bosanquet, 101; Mrs. David

- McKee, 47; Mrs. E. G. Hill, 47; Mrs. Edward Mawley, 95; Mrs. Edward Powell, 47; Mrs. F. W. Flight, 201; Mrs. Foley Hobbs, 95; Mrs. G. W. Kershaw, 47; Mrs. George Beckwith, 113; Mrs. George Shawyer, 47; Mrs. Harold Brocklebank, 47; Mrs. Herbert Stevens, 95; Mrs. John Laing, 30; Mrs. Myles Kennedy, 96; Mrs. R. G. Sharman Crawford, 30; Mrs. Sam Ross, 47; Mrs. Sophia Neate, 96; Mrs. Stewart Clark, 47, 73; Mrs. W. J. Grant, 48; Mrs. Wakefield Christie Miller, 47; Myrianthes Rénoncule, 116; Newport Fairy, 14; Nita Welldon, 96; Noella Nabonnand, 99; Nova Zembla, 71; Oeillet Parfait, 121; Ophirie, 117; Oracenta, 48; Papa Gontier, 96; Papillon, 99; Paul Perras, 118; Paul Transon, 14; Paula, 96; Peace, 96; Pharisæer, 48; Philadelphia Rambler, 20; Pink China, 101; Pink Rover, 51; Prince Camille de Rohan, 30; Prince de Bulgarie, 48; Princesse de Sagan, 96; Queen Mab, 101; Rayon d'Or, 113; Reine Marie Henriette, 37, 51; Reine Olga de Wurtemberg, 51; René André, 15; Richmond, 48; Robert Craig, 15; Rodophile Gravereaux, 113; Rosette de la Légion d'Honneur, 51; Rubin, 20; Ruga, 115; Sarah Bernhardt, 57, 74; Schneeball, 15; Sheilagh Wilson, 51; Shower of Gold, 15; Sodenia, 15; Soleil d'Angers, 113; Soleil d'Or, 110, 113; Souvenir de Gustave Prat, 48; Souvenir de la Malmaison, 122; Souvenir de Madame Métrol, 51; Souvenir de Maria de Toyas, 48; Souvenir de Pierre Nolung, 96; Souvenir de S. A. Prince, 97; Sulphurea, 97; Sunburst, 48; Suzanne Marie Rodocanachi, 30; Sylvia, 15; Tausendschön, 20; Tea Rambler, 20; the Alpine, 139; the Apple, 147; the Bourbon, 122; the Cherokee, 145; the Damask, 142; the Dog, 132; the Green, 102; the Lyons, 112; the Macartney, 141; the Musk, 146; the Persian Yellow, 121, the Prairie, 149; the reddish-leaved, 148; the Seven Sisters, 116; the Sweet Brier, 135; the Thornless, 72; Trier, 20; Triomphe de Rennes, 117; Ulrich Brunner, 31; Veilchenblau, 21; Victor Hugo, 31; Village Maid, 121; Viscountess Enfield, 113; Viscountess Folkestone, 49; W. A. Richardson, 117; W. R. Smith, 97; Wallflower, 21; Waltham Bride, 21; Warrior, 49; White Dorothy Perkins, 15; Willowmere, 114; York and Lancaster, 119; 142, Zéphirine Drouhia, 72
- Roses, after flowering, pot, 230; and other flowers, 62; budding, 183; climbing in the greenhouse, 231; cross-fertilisation of, 196; feeding, 153; for arches and pillars, 83; pruning, 85; for the greenhouse, 225; for the mixed border, 24; walls and fences, 77; from cuttings, 186; from seed, 194; grafting, 192; greenhouse, pruning, 227, 231, 235, 237; in cold frames, 233; in pots, 227, 254; in the mixed border, 63; layering, 190; Maiden, 154; new classes of, 123; on walls, pruning, 81; training, 38; planting, 171; pruning, 172; pruning climbing, 181; raising new, 197; replanting, 171; repotting, 231, 235, 236; shade for, 155; soils for, 166; stocks for, 200, 201; the Ayrshire, 115; the Bank-sian, 117, 122; the Boursault, 117, 121; the Cabbage or Provence, 119; the Damask, 119; the dwarf Poly-antha, 124; the evergreen, 116; the gallica, 121; the hybrid Chinese, 117, 118; the large-flowered Poly-antha, 124; the Noisette, 116, 147; the Pompon Wichuraiana, 124; the Scotch, 121; transplanting old, 243; under glass, pruning, 227, 231, 235, 237; the Wichmoss, 124; of Britain, the wild, 130
- Rust, Rose, 212
- SANDY soil, 168
- Sawflies, 217
- Scotch or Burnet rose, the, 121, 135
- Seed, roses from, 194
- Seedling roses, 247
- Shades for roses, 155
- Situation, soil, and planting, 165
- Skeleton houses, roses in, 237
- Soil for roses, 166; tea roses, 88
- Spider, red, 230
- Staking standards, 55
- Standard roses, 52; half, 50; planting, 55; pruning, 56; staking, 55; stocks for, 253; weeping, 57
- Stocks, cutting back, 242; for roses, 201; planting, 242; potting Brier, 246
- Suckers, 57
- Sweet Brier, the, 135

- TEA roses, 87 climbing, 90: for exhibition, 250; planting, 88; protecting, 89; pruning, 89; soil for, 88
- Thornless rose, the, 72
- Thrips, 222, 223
- Tonks' manure, 206
- Top dressing, 256
- Trainers for roses, 59
- Training roses on walls, 38
- Transplanting old roses, 243
- VIOLAS in rose beds, 67
- WALL roses, pruning, 81
- Walls and fences, roses for, 77
- Watering, 248, 251; wall roses, 87
- Weeping standards, 57; pruning, 59
- Wichman roses, the, 124
- Wichuraiana roses, 5, 13
- Wild roses of Britain, 130; of other lands, the, 138
- York and Lancaster rose, the 119, 142

PRINTED BY
CASSELL & COMPANY, LIMITED, LA BELLE SAUVAGE,
LONDON, E.C.

20.1.14

